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Véronique Petit *Editor*

Population Studies and Development from Theory to Fieldwork

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This book is dedicated to Yves Charbit. We hope he finds in these pages the expression of our gratitude for the wealth he has been able to pass on to us with passion and intelligence: the interest of demography in general and of comprehensive demography in particular, the taste for research and problems of a theoretical as much as methodological nature, the interest for the issues of population and development within an interdisciplinary outlook and the passion for surveys and fieldwork.

This transmission of experience and know-how would not have had as much impact or have been so stimulating without his penchant for pedagogy, his sincere and benign interest for his students and PhD students, his intellectual exigency and his contagious enthusiasm. Thank you.

His former students Alhassane, Aurélie, Barbara, Franck, Laure, Lucas, Mustapha, Nazan, Sarah and Véronique

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Chapter 1
A Theory and Its Application

Véronique Petit

Why does this book propose new research perspectives on population and development issues? Although the analysis, strictly speaking, of population dynamics lies at the heart of classical demography, an increasing number of specialists are shifting towards *population studies* when seeking to interpret behaviours relating to fertility, nuptiality, mortality and migrations. This opening up is all the more necessary when dealing with themes of population and development, health and reproduction, poverty and gender, which go well beyond the sole issue of demographic dynamics, as they also involve economics, sociology, culture and policies. The theory of demographic transition cannot therefore constitute the only reference, thereby making it necessary to look to another theory, better adapted to the approach in terms of population studies[1].

Entire swathes of research falling within the paradigm of population and development have been built in complete independence of the theory of demographic transition, although they had been directly linked to one of its two central variables, birthrate. This is the case of reproductive health: research performed in this field has never been effectively problematised in terms of demographic transition, despite assertions that they are encompassed by this theoretical framework. This is for a good reason: the evolution of birthrate (which is nothing more than a simple ratio of births in a given year to the population) is of absolutely no use for in-depth research on sterility (for example, to evaluate intra-uterine mortality) or even on the efficiency of contraception (calculation of respective rates of failure of the pill and

[1] McNicoll criticises the closeted approach of current research, insofar as it takes demographic transition for granted: "The bankclerkly and backroom activities that now constitute most population studies are worthy enough contributions to the quantitative understanding of demographic change, but they are increasingly divorced from any larger, cumulative social scientific enterprise" (McNicoll 1992: 400).

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Table 1.1 Causal links as described by Kingsley Davis

Changes
Reduction of infant mortality → Faster demographic growth
Responses
→ fall in fertility (contraception *[and/or]* abortion)
→ *[and/or]* older age at marriage
→ *[and/or]* rural exodus
→ *[and/or]* international emigration

withdrawal). Much more detailed data on female fertility are required. One notable exception is an article by Bongaarts, which demonstrates the respective roles of different variables known as proximate (contraception, breastfeeding, age at marriage) in the successive stages of demographic transition (1982: 184–186)[2]. But this is the only work of Bongaarts which establishes this link. Mention can also be made of a study by Léridon (1987), which compares the contribution of basic determinants to the number of children surviving up to adulthood in France in two cohorts of women, one born in 1750 and the other in 1950. However, these two works do not result from the theory of demographic transition; both Bongaarts and Léridon start with intermediate variables that they in some way link to the theory. Their two works thus have the status of ex-post attempts. And, as Freedman (1986) wrote, the problem remains that of knowing what "determines the determinants" of fertility. Likewise, the mobility and dynamics of settlement, nuptiality and the family, intergenerational relations, the AIDS epidemic, and poverty are all population issues in themselves and which can be dealt with completely – which is often the case – outide the framework of the theory of demographic transition.

The theory of change and response formulated by Kingsley Davis in 1963, opened new avenues for research which, surprisingly, remained almost totally unexplored by demographers dealing with developing countries. Davis himself was interested solely in industrialised countries (Japan, Poland, the Nordic countries, Ireland) and did not even mention the latter. And yet this stimulating text addressed major issues such as cultural explanations of fertility, long before later contributions. It is scattered with deep insights into the explanatory power of cultural factors, of systems of transmission of land ownership, the pseudo-immobility of peasant societies and, finally, into the so-called exceptional character of the Irish case (1963: 353, 354, 358–361). Regarding changes (but not responses), Davis showed, on the contrary, that the impact of the so-called religious factor of Catholicism was so strong only because it was *seconded* by other economic and political factors. But essentially, Davis remained strictly *within* the sphere of demography. The central example he gave was that population growth induced by the decline of infant mortality caused couples to respond by delaying marriage, using

[2] As is known Bongaarts' major breakthrough was made possible by Blake's and Davis' seminal paper of 1956 who used the category of intermediate variables.

contraception or abortion and, finally, by moving (rural-urban or international emigration) (Table 1.1).

We consider that the theory provides greatly underestimated possibilities for the specialists of developing countries, since it permits proposing a genuine agenda for research and as such it is more useful than the theory of demographic transition for implementing concrete development projects possessing a sociodemographic dimension. Such is the aim of this book: that of demonstrating, on the basis of case studies, the feasibility of this research strategy.

Taking the specificity of developing countries into account nonetheless requires radical renewal of Kingsley Davis' theory (Chap. 2) since Davis never ventured outside the narrow framework of demographic dynamics in the classical meaning of the term: total population growth, fertility, marriage, mortality, internal and international migrations. However, in developing countries and especially in sub-Saharan Africa, many other types of change affecting development have been observed: epidemics, environmental degradation, etc. Next, speaking of changes leads to forgetting that underdevelopment is characterised by structural inertia, both social and economic, of which persistant poverty takes centre stage. But what is more, since the theory is very succinct regarding the notion of response to these changes and inertias, we propose a far more detailed typology of responses than that of Davis. This leads to raising the problem of interpreting demographic behaviours. How can high fertility be a rational response to poverty? How does culture inform on what the demographer analyses as an annual flow of births? What is the culture and rationality of the actors? Lastly, Davis focused on individuals (micro level), by neglecting the meso (families and communities) and macro (the State as actor) levels. This theoretical chapter concludes with the methodologies that have been formulated and concretely implemented in field research in order to investigate in sufficient depth inertias, changes and responses on these three sociological levels.

The second part gathers five chapters devoted to case studies performed in sub-Saharan Africa, focused on the analysis of behaviours on the individual and community levels. Research that takes into account population policies, thus governments and civil society as actors, are brought together in the third part. How is it possible to analyse the strategies and margins of manoeuvre available to populations confronted by pauperisation, and as a function of the capital, in Bourdieu's meaning, to which they have access? Chapter 3 first presents the theoretical challenges. Then the description of national, regional and local economic contexts highlights the disparity between the country's wealth (mining resources) and the insufficiency of resources available to households. This leads to an analysis of the strategies deployed by households: the diversification of activities, the increased mobilisation of labour, investment in education and emigration.

This initial level of analysis is taken further from the angle of ethnicity (Chap. 4). The population of this region is multi-ethnic with a deep-rooted history that has modelled the relations existing between the groups, each of which is a distinct model: Peul, Nalu, Diakhanke. Indeed, households do not have the same resources (access to land, migratory networks, relations with religious and modern knowledge), nor do they exploit the same types of economic activity, while social

organisation is based on different values which form their ethnic ethos. Thus households develop a specific relationship with their environment and project themselves into the future in diverse ways, demonstrated by their investment strategies. A cycle of pauperisation affects the groups of rice growers, whereas the ethnic groups less involved in farming benefit from the wealth they generate, gradually leading to relations of domination between ethnic groups.

Regarding education, the stakes linked to the domestic organisation of farming in a context of poverty strongly influence the education of children of school age (Chap. 5). Preparing fields for crops is work reserved for young boys and adult men; surveillance and weeding are done by children and women; lastly, the harvest and its transport require the entire household. Education, one of the responses upheld by these populations to change their situations or at least those of their children, is hindered by different constraints linked to the crucial nature of farming.

The Marmara earthquakes that occurred in 1999 marked a turning point in public crisis management policies in Turkey. The magnitude of the devastation triggered collective awareness about the state of the country's vulnerability to this type of risk. Secondly, it was the first time that Turkish civil society had mobilized itself so strongly in such circumstances. This chapter focuses on the evolution of this social context following the Marmara earthquakes. The aim is to understand how they affected the three parameters: collective awareness of a state of vulnerability, the mobilisation of civil society, and the emergence of new risk management tools. Thus in the first part it is shown that the Marmara earthquakes were both a major crisis and a catalyzer for change. The second part explains why the post-earthquake period was unfavourable to this change, due to both the failure of the government's crisis management and to individuals' misconception of risk. However, a multidimensional change is in progress in the longer term, which implies evolutions in the legislation on land use, in the political-economic environment and in the system of individual incentives to take earthquake risk into account in urban habitat management (Chap. 6).

In Madagascar, (Chap. 7), population growth has reduced the amount of available land and the rural population of the highlands is limited to an economy of self-sufficiency. The cultural dimension is decisive for understanding the mechanisms govering access to land: intergenerational transmission is bound to comply with the duty to hand down ancestral land. Sociodemographic responses to the lack of arable land are the migration of children, increased selling of land, contrary to the tenets of ancestrality, while the possibility of marriage is influenced by access to land.

The third part gathers five other case studies. These address the interactions of individual actors, families, and communities with a major actor, i.e. the State and its population policy. Female genital mutilation is a serious health problem regarding morbidity and mortality, given that the most dangerous form, infibulation, affects about three quarters of women in the Horn of Africa. However, a significant reduction of female genital mutilations, especially infibulation, has been observed recently in Djibouti (Chap. 8). An original quantitative clinical survey, which renews the measure of such behaviour, highlights an indisputable shift in the practice of FGM. In addition, a socio-anthropological study carried out at the same time on the actors involved, examines the family and social dynamics in play in the sociocul-

tural context of Djibouti. The role of the State and international development agencies in this process of social change is observed through the construction and implementation of the policy to combat FGM. This perspective makes it possible to examine the gaps between the expectations of populations and the perception of the actors supposed to instigate social and health improvements.

In New Caledonia development policy aims at rebalancing the spatial-ethnic inequalities resulting from colonisation (Chap. 9). The persistance of these inequalities, confirmed by the level of education and employment rate on the island, emphasises the partial failure of this policy. Thus particular attention is given to poor households, focused on strengthening social financial benefits. Making use of a hybrid economic system (subsistance and commercial) is one of the specific responses that the poor use to ensure their successful social integration.

When Reunion was made a department of France in 1945, the island was characterised by shortages and underdevelopment (Chap. 10). Two major changes occurred: strong demographic growth and the continuing increase of unemployment, leading the public authorities to implement a policy to control brith and emigration to metropolitain France. For many young adults faced with difficulties of finding jobs on the island, leaving it is a preferred option. However, despite public aid for mobility, some individuals are less equal than others regarding migration, as departures in terms of response more specifically involve the best educated youths. Lastly, the family determinants of individuals wishing to migrate show that it is necessary to vary the different levels of micro, meso and macro analysis in order to study migratory paths.

Although Mauritius (Chap. 11) was one of the first countries to have reduced its birth rate and experience genuine economic development, there is another side to this success story. The population residing in the towns of the north part of the island remain entrenched in poverty, accumulating a series of sociodemographic handicaps. It uses contraception little or else inefficiently and sometimes turns to abortion. Religion (Catholicism and Hinduism) is one of the explanatory factors, alongside perceptions of the body and gender relations. However, these problems of demand are further compounded by the insufficiency of national and international supplies of contraception, which remains a solution poorly adapted to this population. The result is that it feels stigmatised.

In the large cities of Cameroon (Chap. 12), the HIV/AIDS epidemic can be analysed as an exogenous trauma that has not given rise to an imemediate national response at institutional level, in spite of the pressure and priorities imposed from outside. The response of young people is overinfluenced by “macro” factors: preceptions of the role played by developed countries, the urban context, the effects of poverty and, lastly, gender relationships, perceptions and uses of the body, and sexuality. Thus young people find themselves in a situation between refusal and “do-it-yourself”: a total lack of protection, and small empirical and sometimes counter-productive practices. The position of young people remains ambiguous regarding HIV tests, they use condoms “circumstantially”, and finally place their trust in God.

The general conclusion (Chap. 13) widens reflection on issues raised by the relation between research and action around a central idea: how can the indisputable

contribution made by science be reconciled with the expectations and needs of the programmes and projects defined by international institutions, international organisations and associations representing civil society.

This book is therefore an evaluation, placing in perspective nearly four decades of works (1985–2010), resulting from research, sometimes linked to PhD theses that often responded to institutional requests made by international organisations (UNICEF, UNFPA, UNDP, UNAIDS) or national development agencies (Coopération française, USAID). A typical example is the research programme on poverty and the environment in Guinea performed in collaboration with the National Office of Statistics and Conakry Sonfonia University. The Poverty Reduction Strategic Papers (PRSP) underlined the urgency for producing sociodemographic surveys analysing poverty through the production of indicators that measured levels and forms of poverty according to the ecological and economic specificities of the natural regions of the country. In addition, the PRSP emphasised the need to conduct *qualitative* analyses to identify and understand the responses formulated by populations according to the system of limitations and opportunities in which they live every day. Thus, at the request of the National Ofice of Statistics, we performed the first two surveys in the region of Maritime Guinea in 2002 and 2003, the results of which we present here, and a third survey in the region of Upper Guinea in 2005. These research works were funded by the UNDP and the French Embassy in the Republic of Guinea.

The authors of the chapters are academics, researchers, French and foreign experts endowed with solid practical experience. They are all concerned with combining scientific rigour with research applied to population and development (see list of authors). Most are demographers, with sociological or anthropological leanings, and their contributions present a stong population studies orientation, without however neglecting the aspect of classical demographic analysis. That is why the sources used stem from both the data of existing censuses and surveys, and those stemming from original collections conducted according to innovative interdisciplinary methodologies.

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Chapter 2
A Theory for Developing Countries

Yves Charbit and Véronique Petit

If one takes takes for granted that the population studies approach, as opposed to pure demography, is undisputable, then research on population and development should be able to: (a) integrate disciplines other than demography likely to offer concepts and data: economics, sociology, anthropology, ecology, political science; (b) consider development at all relevant levels: micro (the individual), meso (family and social networks, village community or urban neighbourhood), macro (system of values, state, international arena); (c) contribute to better understanding of issues such as gender, power and poverty, that is to say provide analyses with real explanatory power and not a mere descriptive account of observed demographic behaviours; and (d) finally and most importantly, help understand what lies at the core of underdevelopment, i.e. structural inertia.

To respond to this agenda, which to our minds would enable better targeting of population and development programs, this chapter proposes a theoretical framework stemming from the theory of change and response initially formulated by Kingsley Davis in 1963, which has been considerably overhauled conceptually on the basis of our own problematics and research methodologies in the Caribbean and sub-Saharan Africa. Indeed, the case of developing countries requires rethinking this theory in-depth. This chapter, which substantially adds to a previous article (Charbit and Petit 2011), starts by presenting the theory as formulated by Kingsley Davis and his successors (I). We first define the major categories of analysis in terms of changes and inertia (II), then responses (III). We then turn to the question of interpreting demographic, economic and social behaviours (IV) and their practice

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by impelementing appropriate field methodologies (V). The conclusion deals with the underlying epistemological challenges (VI).

The Original Theory (1963)

Although he described his theory as *a multi-phasic response*, Davis did not mention in which order these responses appear, neither in the case of Japan nor of Ireland (Davis 1963: 349).

Friedlander scrutinised two European countries, England and Wales, and Sweden, paying particular attention to internal migration and the rural population (Friedlander 1969: 367–377). Mosher, applying the theory to the case of Porto Rico, showed that between 1940 and 1970 population growth induced by infant and adult mortality declined, at the same time as when agrarian reform and programs of general industrialisation were being implemented. This was the first response to internal migration, followed by emigration to the United States, the diffusion of contraception occurring only afterwards. An important contribution of Mosher is the distinction between *possible* responses, which depend on the economic, social and political context, and *preferred* responses, which are modelled by socio-cultural norms. Hence, in rural societies, migration (internal or international) is preferred to controlling fertility by contraception or delaying the age of marriage, as it has two advantages: it allows exploiting additional channels of income in different labour markets (Puerto Rican cities versus the US mainland), it immediately reduces demographic pressure, and it can be used without threatening value systems, at least in the short and medium terms. Hence Mosher indeed identified phases, at least in the case of Porto Rico. To sum up, the objective of Davis was to theorise demographic responses to population growth, although he mentioned economic factors behind the curtain. For example, couples reduced their fertility because they did not want to lose their economic status, but this factor is in fact only mentionned as a contextual element and is not at all integrated in the theory (Davis 1963: 362).

The Causes of Failure

The theory of change and response could have competed with the transition theory, but Kingsley Davis did not succeed in repeating the remarkable breakthrough achieved by the article co-authored with Judith Blake (Davis and Blake 1956), which offered an analytical framework opening the way for Bongaarts' models.[1]

[1] They had proposed an extraordinarily fruitful analytical framework, by distinguishing environmental variables (education, residence, economic activity), and intermediate variables of fertility (contraception, marriage, to which breastfeeding and abortion were later added). The mass of data collected from the 1970s by the World Fertility Survey programme allowed John Bongaarts to quantify and model the role of these intermediate variables in the decline of fertility, leading to a decisive advance in the analysis of the demographic evolution of developing countries.

Indeed, a close examination of the seminal article of 1963 reveals that the expression "demographic transition" is *never* used. Davis mentions "demographic history" twice (Davis 1963: 345, 351), and "population theory" twice also (Davis 1963: 352, 353). Why didn't he bring them both together? What he writes about the words tradition and contraception is no less surprising. "An explanation in terms of 'tradition' has no value in social science, because 'tradition' is merely a name for the absence of change. (…). We have no real theory but merely another name for it. As for the so-called values, they should be recognised as being a part, or aspect, of the behaviour itself, and, accordingly, as requiring to be explained rather than being used as the explanation" (1963: 354; quotes in the original text). And further: 'rural populations in industrializing countries made no demographic responses (…). Their failure to feature contraception and abortion was not due to "traditional attitudes" (mass migration out of agriculture was not 'traditional' either but to the availability of an alternative which fitted the interests and structure of peasant families in the evolving economy" (Davis 1963: 355; quotes also in the original text).

Clearly enough, Davis adopted an epistemological standpoint to denounce the weakness of the concepts. His somewhat irritated tone turned into sharp criticism about contraception: "the demographic behaviour of the rural populations did change, and it did drastically because it had to. The common assumption to the contrary seems to arise from our parochial tendency to ignore all changes except the reduction in marital fertility by contraception" (Davis 1963: 354). What were the stakes underlying Davis' lines? The context gives us a clue; the article, which was published in October 1963, was the address delivered by Davis, then President of the Population Association of America, on 26 April, at the banquet closing the meeting. We hold that Davis used this perfect opportunity to launch an attack at the conceptual level in front of all the American demographers who mattered in scientific and institutional terms, against Notestein's paper of 1953 (1983), which laid the foundation of the theory of modernisation. Notestein's paper had met with great success and the issue which explains that veiled but perfectly recognizable attack was clearly the control of the theoretical field. John Cleland, in reference to Frank Notestein, the inventor of the theory of modernisation, and to Kingsley Davis, evoked these two "classical perceptions" of demographic transition (Cleland 2001: 60) implying that the theory of change and response was a later contribution to the theory of demographic transition, a serious misunderstanding indeed.

Beyond Kingsley Davis and His Followers

Even if the theory of change and response was a failure in demographic circles, and even if, as was the case of the transition theory, its object remained population dynamics, it represented a real renewal in four areas. First, as far as changes were concerned, Davis' theory presented an important epistemological characteristic: it prevented falling into the trap of the evolutionist illusion cultivated by the transition theory. Second, it dealt less with the long-term perspective, namely the multi-secular decline of death- and birth-rates and the growth of population, than with short

term- and mid-term evolutions. Third, it returned the voice to actors, by positioning itself at the micro-level of analysis instead of that of large aggregates. Fourth, it offered an important typology: possible *versus* preferred responses (Mosher's contribution). Davis only envisaged one type of change: population growth linked to the fall in infant mortality. Clearly, the weakness of the theory as formulated by Davis is the risk of a systemic drift. If his theory is not handled with care, it leads to the belief that partial causalities are coherent between each other and make up a system. As noted above, he clearly proposed a *causal* chain of events. In the case of developing countries, and above all in sub-Saharan Africa, many other types of change have to be taken into account: emerging or endemic diseases; the rarefaction of natural resources; the degradation of agriculture and increasing food insecurity; land-pressure in rural as well as urban areas; at the macro level finally, the double impact of climate change and economic globalisation.[2]

Since the perspective must be broadened, we can start with the admittedly sketchy idea that there are two available paradigms: the economic-political one, because economics and politics are largely intertwined; the socio-cultural paradigm, because culture cannot be analysed independently of its social context. Three strategies of research are thus possible: to give primacy to the economic and political realm; to privilege on the contrary the social and cultural realm; to exclude neither of the two paradigms. Research on a single variable usually favours one or the other paradigm (in the case of fertility, cultural theories versus microeconomics of fertility). But it is evidently impossible to decide once and for all between the two paradigms, because of the extraordinary diversity of issues and problems associated with the area of population and development. We hold that it is more reasonable and pragmatic to consider that economic, social, political and cultural factors constitute a nexus of factors, the respective importance of which can only be evaluated on a case by case basis (research on gender, poverty, etc.). Otherwise, excluding one or the other dimension automatically leads to a narrow vision that runs counter to the possibility of doing justice to the reality of contexts of underdevelopment of which demographic behaviours are parts.

Changes and Inertia

While Davis was essentially interested in change, he ignored *permanencies*, which are crucial, because development is indeed never homogeneous, entire parts of societies can be glued into structural inertia. In other words, if change does not occur, it is because of hindering factors of blockage, which are at the core of underdevelopment, and are at least accurate indicators of it.

[2] Naturally, positive changes exist from the standpoint of development: the improvement of the status of women, advances in education, etc.

Levels of Analysis

Ronald Freedman recalled (1986) that in the early days of the World Fertility Survey, he contributed to shifting analysis from the micro to the social level by designing a "community-level module" meant to measure factors, such as the distance of the household's respondent to social amenities, which by nature were not individual. The pertinent indicators were analysed at the individual level and computerised as a supplementary variable among many other socio-demographic individual characteristics (age, marital status, level of instruction, religion, etc.). Although the WFS was a pioneering program which contributed a major step towards the contextualisation of individual demographic behaviours, the concrete functioning of community facilities (health, post, classrooms) was impossible to evaluate in a single-round sample survey.[3] This casts some doubt on assessing the potential role of community-level variables. As can be witnessed in most suburbs of African capitals, households have taps, but not a single drop of water is available for several hours a day. Thus, is the item "access to running water" a real indicator of modernisation and a factor limiting mortality through better hygiene?

Beyond this trivial example, a more general problem arises. How can we articulate *structural inertia*, which is one of the characteristics of underdevelopment, in a theory of population *dynamics*? The stress laid on constraints is in itself an avenue for the analysis and identification of factors of blockage. But an important qualification must be added. The responses of a household can well be perfectly economically and sociologically rational at its level, but they are likely to fail if circumstances at the national or international levels annihilate all the efforts of these responses. This point can be illustrated by two concrete examples pertaining to rural contexts which could, *mutatis mutandis*, also be applied to cities. To reduce poverty, a household can develop multiple activities such as marketing its crop. However, in a context of social violence, a whole year of labour may be annihilated if the peasant is robbed while returning from the market where he has gone to sell his production. This problem of insecurity clearly shows that what is at stake is poor state governance. Similarly, a household can invest in the education of children and place them in the family network in an urban area. But the investment of families in the education of their children will be lost due to a high drop-out rate and poor school performances if the educational context is characterised by serious deficiencies such as absence of pedagogical equipment, lack of qualified teachers or, even worse, a shortage of teachers. All in all, contextualisation, understood as the assessment of the real weight of macro-constraints (McNicoll's institutional level), must not be ignored in the evaluation of the efficiency of responses at the micro-level.

[3] The methodologies used in research-action are much more rigorous: defining an experimental area and a control area, organising two field visits, at the start and at the end of the project to measure the impact on behaviours.

Survival Strategies, Crises, Malthusianism of Poverty

The emphasis placed on inertia has some implications with regard to the dialectical pair survival strategy/crisis, both terms being somewhat questionable. When a crisis strikes, actors (in general individuals and/or households, sometimes entire communities or ethnic groups) must put into effect strategies of survival and they have a choice among the classical demographic responses, to which can be added forced emigration and more radical ones, such as abortion and, in the worst case, infanticide. Are things however really that simple?

First, actors do not dispose of total leeway to act, especially in contexts of poverty and in societies where relations of gender generate strong inequality. It follows that because poor populations passively undergo changes rather than being active in them, one should not speak of *strategies* (of peasants, of households, etc.) in the face of vulnerability. The term strategy, used indiscriminately, is particularly inappropriate to the reality of forced migrations resulting from violence and genocide.

Second, the very notion of crisis poses a serious conceptual problem, because it is imbued with evolutionist assumptions inspired by the history of industrialised countries, and it leads to interpretations at the very least debatable. Let us revisit the concept of migration-induced crises. In many rural African societies, the decision to migrate has to be analysed in the context of agrarian systems under *perpetual* tension, without it being necessary to invoke such unforeseen and exceptional events as natural disasters (draught) or political conflicts. In other words, in a number of African societies, the so-called ”crisis” has become in the course of several decades the “normal” situation, to which peasants adapt by leaving their settlement. When the situation of chronic poverty is closely correlated to demographic and land pressure, rural African societies have a simple and effective way of responding. Part of the population – often the younger generations – moves from the most populated regions to those still empty or less populated. This process of geographical spillover, in fact an agrarian colonisation, has been observed in numerous African countries. It takes the form of a dual change: the *densification* of space and the *redistribution* of the population over the territory. Hence mobility and migration should probably be perceived rather as a usual and normal response to the vulnerability of agrarian systems. Finally, and contrary to the far too widespread idea of immutable societies that are fixed or ingrained, not to say “without history”, mobility and migration form an integral part of agrarian systems.

Maria Cosio-Zavala (1992) has proposed the concept of “Malthusianism of poverty”. According to her, the pressure of poverty induces the poorest to resort to contraception and abortion. If this is indeed what one observes, notably in Latin America, the theory is undermined by the lack of a historical perspective, as it is doubtful that the current situation of individuals and household is really more “critical” than in the past. It remains to be proved that the aggravation of poverty in the 1960s was worse than one century earlier. Far from it, life expectancy then was much lower, an indisputable sign of unrelenting harshness. Thus things should at least be presented in *differential* terms: it is the widening of the gap between rich

and poor that has become unbearable in the face of irresistible aspirations to democracy. But if this is so, the explanatory power of crises must be reconsidered: it is not so much the economic aspects of the crisis as the ideologies linked to social progress which drive the poor to adopt contraception.

A last *caveat* should be raised here. Regarding fertility, McNicoll points out (McNicoll 1994: 204) that individual hopes and expectations are part of the processes of institutionalisation. The argument, which raises the issue of the interactions between the micro and the macro levels, is not developed further by McNicoll. It is however crucial to understand actual changes, because defining the process of change leads to taking into account potential conflicts between the actor's autonomy and the constraints to which he is subject. We can now turn to a tentative *typology* of responses that combines the psychological and sociological dimensions.

Responses

Responses brought forward by populations to permanencies and changes are much more complex and diversified than Kingsley Davis envisioned. Take the mobilisation of a household's labour force. As families are economic and demographic units crucial in the socialisation processes of children, it is to be expected that the response to a difficult situation cannot be analysed in such purely demo-economic terms. From a strictly theoretical viewpoint, it is of no avail to consider the mobilisation of female and child labour for agricultural work as a response to the needs of rural households, as it is quasi tautological. In order to understand the *concrete modalities* of the mobilisation of the domestic labour-force, it is much more illuminating to start from the idea that the use of family labour is rooted above all in a dual logic of gender and seniority domination. To account for the complexity of responses, we propose to classify them under three headings: *inherited-preferred, oriented,* a*cceptable*. Only the responses given by individuals or by meso level actors such as those just mentioned (families, local communities), are discussed here, excluding the macro actors (States, international bodies, diasporas). Concrete examples chosen in the domains of fertility and migrations are provided in order to help bridge the gap between theoretical construct and empirical implementation.

Inherited-Preferred Responses

Inherited-preferred responses are those which spontaneously come to the minds of actors because they are anchored in their culture, their ethos, their manner of being and of doing transmitted from generation to generation.[4] An *inherited-preferred*

[4] Whether these responses obey an "unconscious rationality" (Wrigley 1978, as quoted by Wilson and Airey 1999) or not is not a relevant issue here. What is important, starting from the individual's

response is both the *solution* formulated by an individual who has become aware of a social and demographic state considered to be unsatisfactory and the concrete *implementation* of this solution. What are the conditions for the emergence of different types of responses? Developing a response has a psychological dimension; it implies believing there is a real chance of improving one's situation. It is mediated by the subjective appreciation of one's social, economic or even political situation (e.g. feeling of discrimination, domination, experience of violence). The individual's characteristics (social status, income, resources, level of education) thus constitute key elements in order to determine his (or her) adaptive capacities.

All of this recalls Coale's (1973) criterion of willingness, but an important sociological qualification must be added. All actors are not in the same situation regarding the capacity to construct responses. These individual handicaps are sometimes compensated by the social resources that can be gathered through participation in local associations or in larger social networks. Individuals in a position of inferiority or subjugation for reasons of gender, age or education will have greater difficulty in identifying solutions and evaluating their feasibility and durability correctly when implementing them. In particular, the social context in which the actors evolve has a direct influence. Individuals usually compare the situation of their own household to those of other social groups, communities and ethnic groups, but also, in today's context of globalisation, to the living conditions of people in rich societies. The media, by diffusing information on socio-economic indicators, social models, values and behaviours which they display as constituting success, or, on the contrary, which they stigmatise, contribute to the establishment of the opinions that underlie the self-evaluation by actors of their social status.

Inherited responses normally conform to the codes and prescriptions of the society the actors belong to, but they are not always necessarily *preferred*. Such is the case when individuals may formulate responses thought of, if not dreamt of, as corresponding to their *own* ideal, to what they think of as being the best for them according to their goals in life. These types of response can cause tensions and conflicts, if they oppose the individual's own goals to those of their families or community. For a young sub-Saharan adult, emigration to Europe appears to be an ideal solution because of the freedom and autonomy that come with increased opportunities of employment. The nature and the magnitude of the conflict will depend on the individual's status within the family, gender, generational position and personal capital. Moreover, even if they are in conformity with the prevailing social organisation, responses can still produce tensions within the household or community due to increasing individualism. Another relevant example pertains to women's work in Africa: the female labour force is traditionally mobilised for the household's agricultural work, hindering women's empowerment. Since men control agricultural production, women's responses often consist in setting up women's associations to develop, for instance, the sale of foodstuffs, thus helping them to gain economic

system of values, is to clarify the factors of change which modify their responses, as societies are modified by exogenous factors. It is also the first step in helping to clarify the problem raised by the use of culture (see below).

autonomy. Analysing these responses is highly heuristic as it permits demonstrating the process of individualisation and, sometimes, of marginalisation within communities. Much of what has just been said about individuals applies to different sociological and institutional levels: couples, families and households, associations of various forms (migrant groups, women's cooperatives, etc.), and rural and urban communities.

Oriented Responses

Oriented responses are those promoted by a specific segment of the broad category of McNicoll's institutions (1994), namely those in charge of population policies. With regard to the implementation of population policies, these responses are judged desirable by institutional and political actors. In the West African context of high fertility, a small family size must first be perceived by individual actors as a possible goal to reach before being actually achieved. In Senegal, after several years of family planning programs with a strong IEC component, responses had changed. The Senegalese Fertility Survey of 1978 revealed that when women were asked how many children they desired, 29% were unable to quote a figure and answered "It depends on God". In the DHS which followed in 1996 and 1992, this response was given by only 16% of them, clearly a result of arising awareness.[5] However, the poor results achieved by family programs regarding the actual use of contraception, notably in Senegal and in Niger, cast serious doubts on the possibility of population policies to rapidly change real behaviours.

Accepted Responses

Accepted responses are the result of a compromise within the household, or family, even of the community, between the partisans of the *status quo* and the expectations and interests of those who wish to innovate, notably those responsible for population policies. Both the field of reproductive health and that of international migrations provide a wealth of examples which illuminate the dynamics at play.

Reproductive Health

A crucial question is why do both preferred and oriented responses turn - or not - into acceptable responses? Let us deal first with oriented responses. Depending on the gap between inherited and oriented values, and of course on the amount of political coerciveness, a compromise can, or cannot, be reached and result in

[5] For a discussion of the anthropological meaning of such answers see Bledsoe et al. 1998: 47.

observed changes. Of course, as Demeny put it, "the essence of a population problem, if there is a problem, is that (…) choices at the individual level are not congruent with the collective interest" (Demeny 1986: 473). But the question is precisely: Why is there no congruence? Our fieldwork in Senegal showed that in the very same village traditional leaders (the *matrone* and the *imam*, the religious leader) were in favour of the use of modern contraception by both women and men. Surprisingly, opposition came from the so-called modern leaders (the school teacher and the *infirmier*, a male nurse). This paradoxical result is easy to understand. It has to do with quite a large range of professional and personal values and opinions. The school teacher claimed that giving information in class would be regarded by parents as inciting their daughters to debauchery. The male nurse put forward his religious beliefs as a Muslim. By contrast, the *imam*, who combined both spiritual power and social influence in the village, could display a tolerant attitude. The Kuran, he said, stated that a man should match the number of his children with his resources. As for the *matrone*, her lifelong experience had convinced her that women's sufferings and risks while delivering their babies should be put to an end by giving them the means to space births or else stop conception altogether (Petit 1994). This small field example has heuristic value. Regarding the failure of fertility reduction programs in several West African countries, where several million dollars have been spent, it has been argued that the real problem was not a demand but a supply problem, namely the commitment of national governments and their decentralised branches to effectively implement programs. However, the perspective should be reversed with supply possibly becoming a demand problem: why do political leaders, taken as institutional actors, fail to commit themselves? The reluctance of national political leaders to commit themselves has to do with the conflict between their societal values and those who vote for them on the one hand, and the Western logic of time and money spent on programs on the other. Experts working in population programs in West Africa often experience inexplicable delays and they rightly complain about them. A sociologist would rather try to understand the legitimacy of this *de facto* sabotage and the societal constraints exerted upon national leaders in charge of such programs, not to mention the headache they endure trying to fulfil the funding rules of multiple donors.[6] But as official representatives of the State, they have signed international agreements. Of course this observation should not be generalised, since private African entrepreneurship is very efficient. Finally, the whole argument raises the fascinating problem of the sociology of organisations: what is really a state in West Africa today?

International Migrations

At the macro-level, international migrations reveal similar conflicts. Starting in the 1970s France unsuccessfully tried to promote return migrations, by signing several bilateral agreements and giving financial incentives to potential candidates to return.

[6] Such as claiming the very same original financial documents in view to auditing the project to which they contribute funding.

These measures were wrapped by pious considerations about the contribution of returnee migrants to local development, the unstated corollary rationale being that migration flows would ultimately dry up. But this proved very short-sighted understanding of the economic rationality of foreign migrant workers. Predictably, it turned out that the financial incentives were always too small to compensate for the loss of jobs in France. In Algeria, for instance, where economic prospects were dim, the response of migrants was to take the money and come back to France as soon as possible and by all possible means. What of negotiations involving two micro actors, say the individual and his family? In the same vein as the potential conflicts between macro and micro actors, accepted responses stem from a compromise between the expectations and interests of those desiring to innovate and those preferring the status quo. A most illuminating example concerns international migrations: migrants who returned home after having sent remittances to their community of origin feel justified in contesting those holding power and social control over that same community, usually the elders. Revealing such tensions requires qualitative methodologies, quantitative demography evidently being the least adequate discipline.

To conclude, since these three categories of responses are evidently not exclusive, research may usefully emphasise inherited-oriented responses when analysing the social and political context, but stress is placed on preferred and acceptable responses when focusing on the actual behaviour of individuals and couples, e.g., the decision to migrate, to use family planning methods, conflicts over girls' education, or over the choice of a bride, etc. Formulating responses and implementing them concretely can of course extend over a very variable length of time, depending on the objective magnitude of changes in the context and the evaluation performed by the actors.[7] As is known, this point is now conceptualised in the case of poverty: subjective poverty is as important as objective poverty as a motivation to respond to changes, a point on which Marxist theories of action focused heavily: when and how can an alienated population revolt against an oppressive order?

Interpreting Responses: Comprehensive Demography

In order to explain, and not only describe behaviours, we propose to move on to a genuinely *comprehensive demography* (Charbit 1999), defined in the sense of Max Weber, as what an individual's behaviour really means to him or her. It is radical departure from the Durkeimian approach, defined as a systematic attempt to *objectivate* behaviours, here those measured by the classical demographic variables, and which, needless to say, has massively influenced demography from its origins. And demographers are still convinced that by using quantitative indicators specific to each variable (fertility, nuptiality, migration, etc.), they are actually *explaining*

[7] On the importance of history and more generally of time for institutional analysis, see McNicoll 1994: 203–204.

demographic behaviours. By contrast, the significance of behaviour has been a major matter of concern for anthropology, and significantly enough *Anthropological Demography. Towards a new synthesis* for the most part gathers contributions by anthropologists, displaying uneven degrees of sympathy towards demography, and by a much smaller number of demographers, internationally recognised as such, unwilling to confine themselves to a narrow defence of their discipline. We propose ways to bridge the gap between demography and anthropology, but starting from the demographic end of the bridge, and it is hoped that points of convergence will appear between anthropological demography and comprehensive demography (Charbit 1999; Charbit and Petit 2011). First, crucial is the issue of culture and how it governs the perception of reality and shapes the actors' responses to the context in which they evolve. Second, our brief discussion of culture raises in turn the issue of the rationality of the actors. Finally, it is argued that comprehensive demography offers a blend of objectivism and criticism of positivism that avoids the excesses of postmodernism in demography.

Culture

Comprehensive demography radically departs from the simplistic and over-frequent use of culture in demographic work, a "mere labelling or proxy exercise" (Kreager 1997: 143), by exploring people's values and beliefs, not only at the individual, but also at the meso and macro levels, indeed a constant practice in anthropology. Our typology of responses suggests that one cannot be content with the plain commonsense idea that culture is, together with individual psychological inclinations and economic factors, one of the three major constitutive elements of the actor's responses. Demographers usually regard culture as one of the characteristics of the individuals they survey: they possess a few quantitative indicators of "culture", usually spoken language, religion, ethnic belonging, caste when relevant, which they aggregate. At the macrolevel, they often use culture, taken as category, as a residual factor or worse as a magic word, culture being a black box where the hidden truth lies.[8] Many are not able to treat it seriously at the macro-level, except by making a brief ritual reference to the alternative between "traditional" versus "modern". In the best case, they add these quotes to both adjectives, but this is just paying preventive lip service to foreseeable objections fired at them by sociologists and anthropologists. In Hammel's and Friou's words, "in the Notestein tradition, one might only have to achieve 'modernisation' (whatever that is), and let social actors mysteriously adapt, without understanding just what they are adapting too" (1997: 192,

[8] Kertzer and Fricke 1997b: 18. The Dogon of Mali are a *cas d'école.* A demographic investigation of both their international and internal migrations, which have an indisputable economic rationality, cannot be *interpretative* without seriously taking into account the anthropological dimension, especially the founding myth of the origins of the peopling of the Bandiagara cliff, with the importance of fetishes, but also the double system of male- and age seniority. See below.

note 3). Earlier, Hammel had employed severe but well-deserved words for the use of culture in demographic works: "culture in demography seems mired in structural-functional concepts that are about 40 years old, hardening rapidly and showing every sign of fossilisation" (1990: 456. Levine and Scrimshaw take the same view, 1983: 667).

As an anthropologist aware of the highly polysemic nature of the concept, he proposed to demographers a categorisation of culture based "on the logical functions of the concept of culture as a tool in thinking about behaviour" (Hammel 1990: 456). But this does not take us very far. A more interesting question is why and how changes occur in the cultural ethos of individuals or groups. In a paper published in 1992, Mason criticised so-called cultural theories, pointing out the "invalid equations" between cultural processes, ideational processes and fertility decisions. Ideational changes, for instance the desire to have lower fertility, can occur without any cultural change and has even less to do with couples knowing that it is possible to have fewer children. But it is more than likely that at some point in time an ideational change will be integrated into the culture, because culture is by no means rigidly fixed in time and space.[9] There is a good reason for that: those supposedly traditional rural societies evolved constantly over centuries and the simplistic vision of native immobile cultures must be discarded; historians are at ease in reminding the demographers of the adjustments which occurred in agricultural techniques throughout centuries. It does not at all make sense to believe that rural societies would remain rigid *only* with regard to human reproduction. The problem for the researcher is to focus on the *adequate temporal scale*. In other words, how to disentangle ideational and cultural changes when one is doing fieldwork? If the analytical frame of the theory of change and response is used, the problem loses its sharpness and our typology of inherited-preferred, oriented, accepted responses allows embracing both changes. But it has a far more heuristic value. It leaves completely open the possibility of analysing in dynamic terms the compromises formulated by the actors when they are faced with conflicts between their cultural values and changes, whether economic or political. In contexts of increasing poverty parents close their eyes when their daughters prostitute themselves to pay for their younger brothers' school expenses. Political pressure has been exerted by population programs, notably sterilisation campaigns targeted at men, generating potential or overt conflicts traceable in fieldwork interviews. In view of the fantasies about virility, a possible compromise for a vasectomised husband is (and has often been) to justify his own acceptance of vasectomy by economic rationalisations ("we shall no longer be burdened with children"). Since the sterilisation of his wife would have had the same result, the answer given is a pure rationalisation. Judging from the *observed* ratio of male to female sterilisations, the cultural question is why is it clearly more acceptable to sterilise a woman than a man? Gender studies have a few words to say about this.

[9] As Hammel (1990: 467) puts it: "a transitory and negotiated set of understandings (…) a constantly modified and elaborated system of moral symbols". Also see 457–458 on the fact that individual actors are partly active and partly passive in this process.

If cultural patterns are taken as both models of and models for reality, the link with the actors' responses is evident and one can avoid the shortcomings of the two standard treatments of culture, its reduction to individual characteristics on the one hand, and vague and empty references such as "Western culture", "Global culture" on the other hand (Fricke 1997: 252–256).

The Rationality of the Actors

Interpreting demographic behaviours inevitably leads to asking which type of rationality is behind them. Kreager convincingly argues that actors have several different identities which constitute their personalities and which they can mobilise on a case by case basis (Kreager 1997: 164). But he misses an important point; these identities can generate inner conflicts within the actor. This is especially true regarding issues like reproductive health, as our study in Senegal mentioned above showed, when culturally inherited responses are contradictory to those oriented by population programs. If explaining behaviours indeed requires looking for their rationality - not that which the researcher presupposes, but that which makes sense to actors- the choice between the two possible paradigms, the economico-political and the socio-cultural, becomes crucial. Demographic research presupposes in most cases a *homo economicus*-type rationality which is very rarely discussed at the epistemological level, while other rationalities – social, cultural or political – are almost never taken into account. Let us assume that the first is the most relevant when dealing with population and development. A good case study is provided by rules governing the transmission of land on the *Hautes Terres* in Madagascar when a peasant retires. They are remarkably *flexible* in the case of inheritance from parents; they become *rigid* and downright pernickety when land is sold to strangers (Omrane 2008). One would expect the often above quoted alternative theories of Malthus and Boserup to be most helpful in understing such practices, insofar as land is a crucial factor for both theorists. In reality, the Malthus/Boserup alternative, which privileges the economic paradigm, is totally inoperative when analysing the transmission of estates. Nor is the *land-fertility hypothesis* useful.[10] These apparently contradictory transmission and selling practices are first and foremost conditioned by "ancestrality" and the sacred character of the land. The notion of usufruct therefore appears heuristic: it has never been taken into account by demographers although it is familiar to anthropologists. Ancestrality is indeed highly meaningful to the Malagasy peasant: it does not matter to him how the land is shared between his sons and daughters, precisely because it remains within the family, because it is not alienated to a stranger. Such is precisely one of the aims of comprehensive demography.

[10] Magnon (2010) also shows that in the case of conflicts over landed property in the areas neighbouring a projected new international airport, the Boserup logic explains very little.

It is commonly accepted that anthropology can provide the most perceptive insights, especially on issues such as fertility.[11] The complementarity of both disciplines is evident. Conversely, Hamel and Howell credited demography as "cutting across and unifying the sub-disciplines of anthropology as few other topics do" (1987: 141).[12] The classical error of interpretation of the post-partum taboo can be recalled here, which is wrongly analysed as a conscious means of birth spacing in lieu of being regarded for what it is, a practice echoing the necessity to ensure the survival of the group.[13] The use of contraception in a sample in rural Gambia "fly in the face of every major theory". It reflects concern with the "wear and tear" of women's bodies but not any logic of child spacing (Bledsoe et al. 1998: 16). This finding echoes the use in Latin America and the Caribbean of female sterilisation, "*la operacion*" (Lewis 1969), which often characterises uneducated, poor and relatively old women, thus with a socio-demographic profile completely different from that of users of, say, the pill.

The Limits of a Postmodern Demography: A Case Study in Caribbean Union Patterns and Family Structures

Anthropology is on solid ground when it blames demography for its poor handling of rationalities, identities or culture as the underlying roots of demographic behaviours. Understanding them undoubtedly requires going beyond the narrow fringes of the latter discipline and its quantitative expertise. Methodologies conceived for the sole purpose of measuring hard facts, or what are supposed to be, cannot be expected to provide convincing contributions to such complex issues, hence the clumsy demographic treatment of, say, gender relations. By contrast, anthropology can legitimately claim to be able to reach the essence of a given group, on the basis of acquired acquaintance thanks to long field work and total immersion in the community under study, proper command of native tongues, careful reconstitution of genealogies, gathering of oral histories and participants observation into one or several aspects (social, economic, cultural, political) of the life of the people. One of the characteristics of postmodernism is a partial or total rejection of a blind belief in data and objectivity, hence a systematic questioning of the methodology and epistemology of mainstream social sciences, and among them even of anthropology. It was commented upon sarcastically by Hammel and Friou: "the positivist natural science tradition of anthropology has weakened under a critical onslaught (…) by

[11] The economics of fertility are another successful example.

[12] See the various contributions to Kertzer and Fricke's 1997a volume. Levine and Scrimshaw (1983) are less convincing. Kreager provided for three examples (the Nuer, the Redille and the Nwenbu), the anthropological contexts in which elements of demographic regimes were embebbed (1982).

[13] For a well-contextualised example, see Lockwood (1998: 92–93), also Caldwell and Caldwell (1981); Page and Lesthaege reject the argument of "unconscious rationality" (1981: 14–15).

the corrosive postmodernist wave of doubt about anyone's ability to be sure about any observation (…) Anthropologists, at least the post-modern variety, are uncomfortable with order and happiest when the world lies deconstructed around their feet" (Hammel and Friou 1997: 177). Whatever the epistemological benefits gained from deconstruction may be, social anthropology has undoubtedly acquired a remarkable virtuosity in this reflexive intellectual attitude and it is certainly one of the disciplines that has gone the farthest.

Such is not the case of demography because of its positivist orientation. The slightest doubt cast upon the real meaning of demographic data, not to mention deconstruction, raises strong resistance from demographers. They hold quantitative measure to be the guardian of the truth, without questioning any implicit assumptions. For instance, Van de Kaa completely misses the point, or rather avoids tackling the issue of deconstruction on the grounds that 'not all concepts and uses of the term postmodernism have the same relevance' for social sciences (and therefore for demography). He retains "two conceptual levels", the "changes of values" that have occurred over recent decades and *postmodernity*, defined as a "new historical era". This shift from postmodernism to postmodernity is accompanied by the claim that "postmodern theorizing plays virtually no role in considering this question" (Van de Kaa 2001: 292–293). Clearly enough, he does not deal with postmodernism in any way in spite of the title of his paper, "Post modern fertility preferences". Such closeness is precisely what postmodernists criticise in the positivist tradition, but can one do better? Indeed very little room is left for demography if one agrees with the provocative title of one of Scheper-Hugues' papers "Demography without numbers" (1997). After all, one might even get rid of demography as a social science and use it as mere applied statistics, which, moreover, can be held guilty of being totally or partially at the service of policy-makers. It is common knowledge that the recent interest of the World Bank and of UNDP for poverty has oriented demographic research and massive surveys towards the measurement of poverty. It is further argued that this has been done largely by ignoring the body of knowledge accumulated with reference to Europe, from Marx to Hogart, not to mention the contextualisation of poverty, as done for instance by Bourdieu in the early 1960s (Bourdieu 1977), when he associated the poverty of Algerian peasants with the rural exodus induced by the upheavals affecting rural agriculture and society, a clear result of decades of French colonisation. But the specific scientific contribution of demography cannot be dismissed when it comes to its central role, which is to provide solid quantitative data on structural patterns, even allowing for potential biases of the indicators.

It is worth recalling a case study of interdisciplinary research in which demography plays a part equal to that of anthropology, sociology, and history. In the Caribbean, the instability of union patterns and family structures was regarded as a structural characteristic, which from the 1940s pushed British colonial power to stimulate research (Smith 1966: V). A massive body of anthropological and sociological research followed (Braithwaite 1957; Henry and Wilson 1975; Smith 1963; Schlesinger 1968a, b), sometimes providing rich quantitative tables on family structures (Clarke 1966: 191–216; Smith 1962: 64–65, 96, 119, 123, 161, 196;

Henriques 1953; Jayawardena 1960: 43–44; Smith and Jayawardena, 1959: 338). Instability appeared to be strongly anchored in history. After the disappearance of the native Amerindians, most of the Caribbean islands, as well as some inland territories, were massively populated by slaves (Moreau de Jonnès 1842 for the French colonies; Curtin 1969; Craton 1979; Lovejoy 1982; Roberts 1957). The nuclear family was unanimously held to be *impossible* during slavery, due to various factors including legal obstacles, the sexual abuse of slave women by white men and the correlative devalorisation of male slaves (Patterson 1967: 159, 162–166; Smith 1953: 71–72; Clarke 1966: 19; Lowenthal 1972: 111–112; Henriques 1953: 104). The situation survived up to the abolition of slavery mainly because of two factors. First, the lack of available land in overpopulated islands such as Barbados (Bolland 1981: 597–599) forced the freed slave to continue to work for their former masters. The second factor was poverty and deprivation, which created a situation of anomy (Smith 1963: 27; Henriques, 1953: 27). Several major academic works thus claimed the predominance of a unique model, *matrifocality*, defined as the centrality of the mother-child relationship regarding not only residence but also on the economic and emotional levels, since the genitors-fathers who were physically absent from the households, were economically unreliable and failed to assume their role as fathers (Smith 1956: 65–66, 142–150, 1975; Clarke 1966: 179–199; Blake 1961; Stycos 1955; Henriques 1953: 105–114; Smith 1966).

A wealth of high-quality relevant demographic data became available from the mid-1970s onwards. Published census tables indicated distributions by type of household, albeit no more than a cross-sectional indicator, but the World Fertility Survey program offered a historically unique opportunity to provide both cross-sectional and cohort-type data on family structures, because it paid careful attention to household composition. When properly computed, WFS data provided two indicators of that instability: (a) a cross-sectional one, the proportion of nuclear versus marifocal households; (b) a retrospective one, the distribution of mothers between those having had children from one, two, or even three or more men, who shared their life for a certain time and eventually "gave" her one or several children. We called this multiple sequential fatherhood *pluripaternité* (Charbit 1987).

All in all, original WFS data for Guadeloupe, Martinique, Jamaica, Dominican Republic, Haïti, Trinidad and Tobago, Guyana, published census data for Cuba, Puerto-Rico, and isolated surveys in Barbados, Jamaica, Martinique, Providencia (Cumper 1961: 388–403; Kreiselman 1958: 151, 179; Slater 1977: 34; Clarke 1966: 192–194; 1961: 520) revealed a strikingly high proportion of nuclear households, amounting in each coutry to almost two thirds in comparison to less than 5% for matrifocal families, *as defined by anthropological research*, also called "grandmother family" (Henriques 1953: 110), e.g. two generations of women, both single, with young children. Last, the Guadeloupe and Martinique surveys revealed an almost equal proportion (69%) of children born from only one father, statistically and uniquely associated with individual poverty and not with an alleged global cultural pattern common to all social strata. In-depth interviews with these women confirmed all the material, psychological and emotional difficulties they

encountered (Charbit 1987: 61–81). However, in Caribbean societies as a whole, instability was not proven.

Moreover, the WFS surveys reconstituted the union histories of eligible women (those aged 15–49). The following rounds of DHS abandoned the questions on union history, to focus on the current marital status of the woman interviewed, thus making it impossible to assess the instability of her past marital life.[14] Several nuptiality indicators (mean number of partners, percentage of time spent out of union, distribution of complex versus simple union histories, frequency of unstable unions types (such as "visiting partner", as opposed to currently living with the husband, etc.) also confirmed the relative stability of mating patterns, quite comparable to several other South- and Central American WFS surveys.

Such was the situation in the 1970s, but the scanty historical sources on slaves gathered by Higman (1973, 1975: 536), Craton (1979: 28–29), Debien (1960: 45–47), and Wessman (1980: 283) also shed serious doubt on the assertion that nuclear households could not be found on plantations and that "Creole" slaves, i.e. second or third generation born in the Caribbean, were assumed to suffer from the family dislocation long-imposed on them by the plantation system. This was meant to be also impossible for recently enslaved "Africans", supposedly unable to maintain their monogamous or polygamous family patterns. Archives of estates revealed large proportions of nuclear households in several islands. Thus, matrifocality, this seemingly well-established sociological and anthropological characteristic of Caribbean societies, was not confirmed by demographic and historical data. The lesson to be drawn is that demographic methodologies have a legitimacy of their own which cannot be placed under the heading of anthropological demography. In the case of Caribbean family structures at least, they also indirectly revealed major biases of anthropological research. First, as noted by Benoist (1975: 10), Rubin (1975: 148), and Schlesinger (1968a: 137; 1968b: 150), anthropological work was based on small samples, generally chosen among the rural, black and poor segments of populations, such as those studied by M.G. Smith in Jamaica (1962), ignoring urban, metis and economically better-off groups. Second, the economic dimension of matrifocality was almost completely neglected, as opposed to the heavy stress laid on slavery and on the corollary cultural aspects. Hence, an underestimation of the concrete contribution of economically active men as "bread winners" to the resources of households and specifically to the care and education of children, which in turn questions their alleged marginality (on the significant role played by male partners, see Stycos and Back 1955: 337–338; Roberts and Sinclair 1978: 54, 293–294; Whitehead 1978: 824–825). Last, in nationally representative samples, men must, so to speak, be surveyed somewhere, which is not the case of small rural anthropological samples, provided of course that there is no international

[14] These indicators are perhaps not crucial in societies where marriage is stable, as is the case in Western Africa. Although a significant proportion of first marriages are broken, women soon remarry, hence a low proportion of divorcee women at the time of the survey, which partly masks the instability of the union patterns. This is precisely the problem with cross-sectional DHS data.

sex-selective outmigration, inducing a real shortage of men in the Caribbean islands, a pattern confirmed by census data.

The road seemed wide open for anthropological work to provide explanations for the rationality of these small groups of women belonging to matrifocal households. Their survival strategies were believed to consist in trying to "anchor" a sexual partner by giving him a child, in the hope that he would provide money for the children born from earlier partners. But here again quantitative evidence runs counter to this blindly accepted consequence of *machismo* as a cultural value prevailing in the region. Indeed such a mechanism exists, and when a woman meets a new partner, she is likely to behave in conformity to the unequal gender relations which characterise *machismo*. Even if the premises are correct, the conclusion is wrong, because what ultimately matters for a pregnancy to occur is sexual exposure. And while sexual exposure is frequent in a stable couple, it is far less so for a single woman, especially if she is poor, overworked, older and less sexually appealing. Such a woman is likely to experience long periods of sexual solitude, hence lower fertility. Here at least, the purely biological component of demography cautions against hazardous conclusions drawn from a cultural construct.

Finally, can comprehensive demography bridge the gap between mainstream demography and postmodernism? Let us present the pros and cons in favour of a postmodern criticism of demography. On the one hand, the large amount of anthropological work available gives some credit to the social and cultural importance of matrifocality and it would seem to reinforce the legitimacy of a postmodern perspective, especially if one recalls Goode's naïve belief in an inescapable and universal evolution towards the nuclear family. Second, even if the family structure seems indisputable as hard data, the woman responding to the interviewer asking her about the people living in the household, who is the breadwinner, etc., may, for various psychological and social reasons, declare her husband as present although he abandoned her long ago. On the other hand, and in defence of demography, it seems difficult to escape the conclusion that there is some truth in different methodologies consistently recording a proportion of two thirds of nuclear households in quite various national, social, cultural and institutional contexts. Moreover the demographic measure (three generations of the maternal line living under the same roof and with no male partner permanently present) is directly "translated" from the anthropological definition.

We share Knauft's position, somewhat more nuanced than that of Hammel and Friou: "The objectivism that most assumes itself to be neutral poses the ever-present danger of unselfcritical scienticism. But hyperrelativism easily results in parlor games of in-house textuality – a competition for avant-garde status or symbolic capital at the expense of meaningful content. Taken together, however, these perspectives encourage a spiraling challenge between moments that assume objectivity and those that stress perspectival relativity … Neither is adequate without the other as a complement; both sides are needed for the wheel to roll" (1996, quoted by Riley and McCarthy 2003: 31–32)

Even if reflexivity cannot be pushed to the limits reached by some anthropological fieldwork, and keeping in mind that we believe in the possibility to objectivate

reality, but that objectivity is impossible, the demographic inquiry of this case study has been pursued by carefully extending its "founding elements, methodologies and epistemologies" [i.e. of demography], to use the words of Riley and McCarthy (2003: 18). The aim was to make sure that fieldwork and analysis were conducted as much as possible from the point of view of the population under study, primarily keeping in mind the hardship constantly endured by Caribbean women.

In sum, the specificity of comprehensive demography is to provide a thorough quantitative measure of certain aspects of societies, by simultaneously placing emphasis on the rationales of the actors, understood as a step towards postmodernism but without falling into its excesses, and systematically interacting at each successive stage of research with other social and human sciences, especially anthropology, sociology, history, geography and economics.

Methodological Implications

Mixed Methodologies at the Micro-local Level

Following a conference held in Canberra in 1984 on *Micro-approaches to demographic research*, a landmark volume co-edited by Caldwell, Hill and Hull was published in 1988. Let us briefly recall three of their pleas. By encouraging a "more holistic view" than the usual surveys, micro-approaches better demonstrate the effect of a given factor at all levels; second, they take better account of the remote determinants (norms, values, etc.) of the Davis-Blake framework which have received less attention from demographic research than the proximate determinants of fertility, because they are difficult to transform into quantitative variables (a point dealt with below). Third, from the viewpoint of applied research, micro-approaches allow testing theories and hypotheses so to speak *in vivo* (Caldwell and Hill 1988: 1–3).

Since the mid-1980s, we have performed several applied research projects that privilege the micro-level in Burundi, Cameroon, Guinea Conakry, Madagascar, Mali, Mauritius, Senegal and Vietnam. Some are presented in the chapters which follow and they all constitute concrete examples of the way in which comprehensive demography was implemented in field research. Contrary to Caldwell and his colleagues, we distinguish the micro-local level in the strict meaning (the individual) from the meso-level (the family and community), since we think that they should be treated differently, from both the theoretical and methodological standpoints. Thus we have developed an interdisciplinary methodology labelled intensive regional surveys.[15] A purposive sample of four to eight villages was selected in a given region

[15] It is described in Charbit and Ndiaye 1994. The results are presented in chapters 14 to 20. Intensive training was given to selected Master's students for 6 months in Paris (including practice of SPSS and simple secondary analysis of the most recent available DHS). As much as possible, similar training was given in the local University by colleagues who were the scientific local counterparts of the research team. In-depth analysis was done during the rest of the academic year.

Table 2.1. Hypothesis 1 and methodology of field research

Hypothesis 1. Demographic behaviours have an interindividual dimension		
Sub-hypotheses	Methodology	Survey tools
1. Norms and values	Purposive sample (ethnic, economic criteria)	Bibliographic research
2. Reference groups	Socio-anthropological survey	Group and individual interview grids
3. Gender relations	Socio-anthropological survey	Male grid
		Female grid
4. The individual him/herself	Socio-demographic survey	Questionnaires and interview grids female/male
	Individual interviews	

Source: Charbit and Ndiaye 1994

Table 2.2. Hypothesis 2 and methodology of field research

Hypothesis 2. The village, as a socioeconomic and cultural entity, influences demographic behaviours		
Sub-hypotheses	Methodology	Survey tools
1. Housing patterns	Socio-cultural topography	Map of village
		Field observations
2. Family structures	Household survey	Questions on family structures
3. Community facilities and development projects	Socio-demographic survey	Community grid
4. Individual migrations and economic flows	Socio-demographic survey	Individual and household questionnaires: "migrations" module

Source: Charbit and Ndiaye 1994

of a country (for example, Maritime Guinea in the Republic of Guinea). The household survey was immediately followed by a classical demographic survey of all the women of childbearing age (15–49 years old) and men (20–69), whether married or not. The quantitative data collection was followed by a qualitative survey in the form of focus groups and in-depth individual interviews with men and women, as well as with traditional and modern leaders. This dual quantitative and qualitative survey was completed by an analysis of the concrete functioning of community facilities, development projects, using, when relevant, databases existing in the villages (for example, health post files). The time spent in the field lasted on average eight weeks, ending with a presentation of a few basic quantitative indicators in the villages generally the "Council of the Elders"; three or four days later, more detailed data and analyses were presented at a national seminar we organized in the headtown. Behaviours were analysed at the micro-level, from a multidisciplinary perspective, mainly linking sociology, demography and anthropology. The conceptual framework and methodology were designed according to two main hypotheses presented schematically in Tables 2.1 and 2.2, by setting out succinctly their methodological implications and the corresponding collection tools (Charbit and Ndiaye 1994). The first hypothesis explores the psychosocial and cultural level of interindividual relations (Table 2.1).

Individual behaviours regarding fertility and family planning are analysed as the result of interactions between the individuals of the village. This involves identifying and analysing four sociological objects: the values and norms shared by all the villagers, reference groups (age classes, peer groups); gender relations (status of the man and of the woman, incidence of polygamy); the individuals themselves, by distinguishing the modern and traditional leaders of opinion.

The second hypothesis (Table 2.2) considers that, taken as a socioeconomic entity, the village has an influence on individual behaviours. Four other sociological objects are therefore identified: housing patterns, the demographic structure of families, community facilities, migrations and development projets that link the village with the outside world. Lastly, it should be emphasised that the quantitative data collected at the micro-level are compared with the data available at the regional and national levels, when censuses or surveys are available.

Two examples are given here, one which illustrates the first hypothesis on the overdetermination of individual fertility decisions (what does having a child in the Senegalese rural milieu mean?), and the other which highlights the importance of the community dimension (why and how does a Dogon woman become the head of the family?).

The Individual Level: Having Children in the Senegalese Rural Milieu

In 1989, the government of Senegal decided to extend the use of family planning methods to rural zones after five years devoted to implementing and strengthening services in urban areas. The political demand was to "identify the factors hindering or favouring the use of family planning". Since empirical work and data were almost non-existent and the existing DHS appeared of no use for this purpose, we proposed to set up a pilot survey to be conducted before the launching of the new Family Health and Population Project, funded by USAID. This political demand evidently had to be transformed into research questions. What were the perceptions and rumours surrounding the main methods of contraception in rural communities? Which socio-cultural and economic factors were behind the curtain? Did the very demographic behaviours (other than fertility, namely nuptiality and mortality) influence the use of contraception? For instance, in a context of high infant mortality, was the theory of replacement births relevant? Did polygamy induce women to have as many children as possible, in order to get the largest possible share of heritage? To answer these questions and many others, our central hypothesis was that giving birth to a child in a Senegalese village, ultimately an individual behaviour, was always intertwined in collective social, cultural and economic logics which had to be the central core of the research. An important qualification was added: villages could not be analysed as closed socio-anthropological units, because the media (especially radio), local development projects and internal migrations constantly introduced ideas foreign to the values of these mono- or pluri-ethnic communities.

As is known, the measure of desired fertility is based on a long-tested demographic methodology. The woman is asked about her ideal number of children and also the total number of children she has given birth to. If the desired fertility is lower than the actual one, the woman is computed as displaying a potential demand for contraception. In one of the villages surveyed in 1991, a woman declared 19 pregnancies, all of which, she claimed, had been desired. But she also declared that she wanted eight children. This striking contradiction implies either that the woman was totally inconsistent or that there was something wrong with the survey. When re-interviewed a few days later, she gave crucial information: one of her co-wives was sterile and her sister had only one child. This qualitative information provided the clue to her apparent contradictions. In a context where fertility was highly valued, as shown by the fact that women acquire the prestigious status of mothers only if they prove they can bear children, sterility is a curse, strongly resented by the group. Similarly, in the context of high infant mortality, the death of an only child is a catastrophe. The woman interviewed could thus "give" children to her co-wife and to her sister, the children being those of the lineage, as a long ago accepted tribute to be paid by women to the group under the form of a contribution to its reproduction. Here again, the socio-anthropological qualification is decisive, her behaviour was possible and approved because, as is known, the biological role of mother in West Africa is at least as important as the corresponding social role. Further, it is usually alleged that in West Africa competition between co-wives is generally fierce and stories of factual violence in some households had been reported to us. Moreover, women in polygamous unions are reputed to be far less motivated to use contraception than those in monogamous ones since their share of heritage increases with the number of their own children. At least in this village, the hypothesis was not substantiated. Gender solidarities proved to be much stronger than mistrust. Participant observation confirmed that the domestic load of work is so heavy in large compounds that women often have to rely on each other, notably with regard to child care. In other words the temporal scale is decisive: even if in the long run competition over heritance may be a source of overt conflict, solidarity prevails in everyday life.[16] Clearly enough, short-term gender solidarity is crucial for these women facing the heavy daily duties required by running the compound, far more so than potential future conflicts around heritage.

Several lessons can be drawn from this example. First, coupling methodologies is evidently highly productive, even if there are various ways of blending demography and anthropology, as shown by the contributions in the volume co-edited by Caldwell, Hill and Hull (1988). As noted later by Hill, it is at the village level that demography and anthropology can most fruitfully collaborate (Hill 1997: 223). Second, demographic variables, in this case fertility, sterility, infant mortality and nuptiality, must be viewed as elements of a socially consistent system of responses

[16] We believe that our single-shot observation has some general validity. The same observation was made in a comparable project in Guinea Conakry (Godard, 2010, also in this volume).

to a given social context.[17] Third, this woman is not following Western individualism; in rural Senegal children are not her's nor her husband's but those of the extended family and even of the lineage. Her individual behaviour is not independent from that of other actors precisely because fertility decisions are not "individual". In France, children are those of the woman and of the couple, except of course in monoparental families, but in Western Africa, this is true only insofar as horizontal (husband-wife) solidarities are not superseded by vertical solidarities or, more accurately, by vertical forms of authority, for instance that of the maternal uncle in matrilineal ethnic groups. Last but not least, from a programmatic point of view, this field example shows that the concept of potential demand for contraception, here measured by the gap between desired family size and actual fertility, suffers from a strong Western bias, since the rationality of nuclear families is different from that of extended West African families, hence posing a serious problem for family planning programs.

The Community Level: Dogon Women Heads of Family

The Dogon make up a little less than 5% of the population of Mali. The subgroup concerned by the data presented here lives in the district of Sangha in the meander of the Niger north-east of Bamako. The Dogon population of this region is well-known from the ethnological viewpoint thanks to the works of Marcel Griaule, Germaine Dieterlen, Denise Paulme and Geneviève Calame-Griaule, to mention only them, though nothing was known of their demographic regime until the survey performed between 1991 and 1994 (Petit 1994, 1998). What did we learn from the demographic census? A total of 21,150 people were counted in 1991 and of the 1,314 heads of family there were only 14 women, of which nearly eight out of ten were elderly and widowed. The families are small in the villages built on scree[18], an

[17] The contrast with the devastating effects of poverty on the acceptance of infant mortality in Brazilian shantytowns surveyed by Scheper-Hugues is striking. She describes how mothers let their "angel babies" die by stopping providing care (Scheper-Hugues 1997: especially 204, 215). Of course, the contexts are very different. Social links in Senegalese villages are strong, children are an asset and young women have little autonomy, whereas the situation in Brazilian shantytowns, where despite everything some form of social organisation necessarily exists, echoing the descriptions of Villermé and Marx of the anomic condition of the urban proletariat of the industrial revolution. But both case studies point to the same inadequacy of conventional interpretations. In rural Senegal, social rationality is stronger than pure utility, and in Brazilian shantytowns, mothers, writes Scheper-Hugues, "can almost always say why a particular infant died. But since their etiological explanations bridge biological, social, political, spiritual, and magical realities, their knowledge is generally rejected by the State and by scientific investigators. The assumptions, models, and paradigms of these women do not fit the secular, biomedical, epidemiological, and demographic notions of causality, rationality, and rational choice that govern scientific research" (Scheper-Hugues 1997: 207).

[18] During the settlement of the Bandiagara cliff by the Dogon, villages were built both on the plateau above the cliff, and on the area called "the scree", i.e. the rocky mass formed over time at the foot of the cliff by the collapse of large blocks. Although this localisation originally served the

average of 9.3 members versus 22.8 members in the villages located on the plateau, and they are above all composed of elderly members and children. Families living on the scree are often composed of a single nucleus and the average age of the individuals composing it is older than on the plateau. Above all, when a woman is the head of a family it is always in a village standing on the scree.

What is the specific nature of these cliffside villages that explains this set of sociodemographic characteristics? In particular, why are so few women heads of families and why are they found only in these villages? From the outset, let us get rid of the objection of the small number of cases observed (14 out of 1,314). If it were a sample survey, these low figures could result from an observation bias, but they result from an exhaustive census and this figure of 14 households is the stark reality. But what is more, it makes sociological sense since it is perfectly coherent with the socio-cultural logic of Dogon society. In the case of Dogon women, there are two decisive elements for understanding the low proportions of women at the head of families: the status of women and the topographical environment (Petit and Charbit 2000). Two apparently contradictory rationales are in play: the status of women explains that very few of them become heads of families; the topographical constraints inevitably ensure that there are a few. But this contradiction is only apparent and resolved when examined from the anthropological angle.

The Status of the Dogon Woman

The status of the woman, and through this the problematic of gender, are essential for describing family structures. In the Dogon society, the man is always the elder of the woman and it is the elders who hold the power of decision. It follows that in a socially normal situation the head of the family is necessarily the oldest male of the individuals present and that a woman is always considered as a junior, whatever her age. The relation of gender prevails over the relation of age. Indeed, "women are not recognised as being the equals of men (…). A woman must not drink in front of a man. Neither must she eat in front of him, even if a boy, since 'a man is older than a woman'" (Calame-Griaule 1965: 360). Denise Paulme emphasised that a woman does not belong to her husband's family and that she remains a stranger, even after several years of marriage (Paulme 1935, 1940).

Demo-anthropological analysis (Petit 1998) confirmed that women become heads of family only when family structures have greatly weakened and where the economic situation is the harshest. The death of a husband clearly illustrates the statuory dependance of women. A woman can stay within the family as a widow or accept, according to the custom of levirate, to marry the brother (in the meaning of the classificatory system of kinship) of the deceased husband. She can however

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logic of defence against enemies, it has proved costly since it is neither propitious for farming activities (limited soil cover), nor for trading (difficult access). These constraints partly explain the migrations that occur to the plain of Séno Gondo, situated in the continuation of the escarpment, where living conditions are more clement.

decide to quit the family by returning to her father's, or by marrying a man outside the family of her dead husband. In fact the choice made by woman depends on her age, and thus her capacity to bear children. As long as she can procreate, she will seek to remarry quickly. If the woman is elderly, or menopausal, she is likely to become a second or third wife by levirate. Otherwise, she will remain a widow, with her children being bound to maintain her. Even if her children have left or else are still living in her husband's family, she will not be driven away, as that would show a lack of respect. The result of this sexual hierarchy is that a woman has little chance of becoming the head of a family, and she can only hold this authority in exceptional circumstances that force the group to act against one of the principles structuring its culture.

Thus women are heads of a family only in very specific and transient situations, and such is the case if the husband dies. They fill this position rather as would a regent, in a situation of expectation. Furthermore, in this society characterised by considerable migrations, the time in which the succession is settled can drag on if the man destined to become the head of the family is in Bamako or abroad at the time of decease. Besides, whatever the reason for which women accede to the status of family head, they do not perform this function with all the prerogatives attached to it, especially its economic and political attributes. They fall under the control of other men of the family, under the eyes of the village elders and they can only decide by proxy. Hence it is generally the brother of the woman's husband who controls the resources. The grain that provides daily nourishment to the family is stored in a male granary, that of the traditional head of the family, with the woman completing the food with her own reserves only in case of necessity (Bouju 1984: 133–134). The male granary, *gê ana*, is moreover the largest of all the granaries. It can contain from 80 to 120 baskets of millet i.e. from 1,600 to 2,400 kg of grain. Disposing of this granary, gives the capacity to assert one's power, feed individuals, make them dependent, and control their fates. The woman does not dispose of these reserves. This means that the situation of a Dogon woman who finds herself the head of a family is necessarily only temporary. However, ecological constraints also play a role.

The Ecological Factor

In the Dogon country, the opposition between the plateau and the scree is fundamental. The former benefits from natural conditions that allow the cultivation of vegetable crops, especialy onion, and the proceeds from tourism; the latter suffers from isolation, difficult terrain and meagre water resources, which hinders the development of vegetable crops, the only source of monetary income along with tourism. These ecological constraints explain the differences observed by the demographic census between the family structures of the villages on the plateau and those of the scree, and more particularly the accession of women to the status of family head.

These women, most usually widowed and elderly, find themselves at the head of several persons with the status of minors, children and old persons, which is socially tolerable, since such a situation does not bring into question, as mentioned previously, the functioning of a society based on the dual hierarchy of age and gender. When her husband dies, a woman can therefore find herself at the head of a small family unit more easily for want of men, as the latter have frequently left to settle for good, or else temporarily, in the villages of the plain where crops can be cultivated. The seat of the main family, the *gina*, nonetheless remains in the original village on the scree. This is where the family fetishes are kept, and where those who have left the scree, having failed to find sufficient resources to set up in the villages of the plain, return for all the great Dogon festivals, like the *bulo* (festival signalling the start of the sowing season) and the *dama* (ceremony to mark the end of bereavement).

It is essential to briefly turn to the history of the Dogon and their founding myths to understand the importance of the scree. Oral tradition reports that they left Mande in the fourteenth century. During their odyssey, they came across different peoples: the Tellem, the Peul, the Mossi, the Bambara and the Bozo. The first contacts with these ethnic groups, whether pacific or hostile, forged the present mode of communication between them and the Dogon: for instance suspicion and hostility towards the Peul, and kinship with the Bozo. This initial major migration, which stands as the founding myth, is central to the Dogon's identity, since at the end of their exodus, they settled on the Bandiagara escarpment after having driven away the indigenous population, the Tellem. The Dogon turned it into a fortress and a sanctuary against the successive invasions of the Peul, the Mossi and Tukolur. It has become consubstantial to their identity, to the point where they consider that the "real Dogon" are those who live there, whence the prestige of the cliff villages. Due to the lack of soil, the Dogon had to colonise the plain extending from the foot of the escarpment. Thus it is hardly surprising that the 68% of the migrants originate from the cliffs, while the cliff villages gather only 55% of the total population. Today, the Dogon who leave for the plain procure for the old remaining in their home village sacks of millet to help tide over the break. Thus economic power is increasingly the prerogative of the plain villages which produce larger quantities of millet, and the fact that women are heads of families in the cliff villages is a clear indication of the shift of power. It is this conjunction of anthropological, economic, sociocultural and ecologic factors that explains why women have little chance of becoming the head of a family and, when they do, it is only in the cliff villages.

These two examples suggest that the coupling of demographic and anthropological methods is heuristic. There are other ways of combining them though, as pointed out by Hill (1997: 223), it is at the level of the villages that the two disciplines can collaborate most fruitfully. Finally, it seems to us that comprehensive demography, above all if it implements a typology of responses, escapes the criticism levelled by McNicoll according to which "as the focus of attention narrows down to individuals, attempting to comprehend the actor's behaviour in terms of his thinking and perception, it is all to easy to lose sight of the institutional setting that to a large extent constrains that behaviour" (McNicoll 1988: 23). On the contrary, comprehensive

demography resituates individual behaviours in their contexts, according to the expression of Greenhalgh, and we completely agree with her plea (Greenhalgh 1995: 13) for a politico-economic demography with an anthropological slant and her insistance on the need not to limit field research to the collection of individual data. Our approach resolves one of the difficult questions raised by the societal level so little and poorly explored by classical demographic research primarily based on individual data, as if the collective level were nothing more than the mere aggregation of individual data! There is an obvious parallel with the opinion polls of developed countries which reduce public opinion to information obtained from quota samples, since this pseudo-conceptualisation of public opinion neglects the role and diversity of the channels of information and social networks that forge political attitudes when it comes to voting.

Epistemological Issues

Mainstream demographic analyses of fertility, nuptiality and migration in developing countries suffer from at least three epistemological weaknesses.

First, it is necessary to have an encompassing vision of demographic behaviours, by postulating that if each demographic variable can obviously be analysed independently of others (nuptiality is a subject of study in and of itself, as is migration), the principal demographic variables must be considered, as said above, as an entire range of adaptive responses at the disposal of the actor who has to react to a given situation. Because of their high degree of specialisation, mainstream demographers, who usually concentrate their work on one of the central variables, tend to ignore these interrelations, a standpoint which is acceptable, provided they do not pretend to transform their solid specific results into sweeping sociological generalisations about the reality of population and development.

Second, the implicit assumption that individual characteristics of surveyed individuals are "explanatory factors" must be seriously reconsidered. The "status of women" is usually defined on the basis of their level of education, profession and area of residence, but these are neither necessary nor sufficient conditions for their status to be higher or lower, since the socio-anthropological status of women is ignored despite it probably being at least as decisive. This definition, which equates status with socio-demographic and economic characteristics, ignores all other levels of analysis. Demographers usually explore gender relations by comparing women's opinions and behaviour (for instance on the use of reproductive health services) with their partners', on the basis of data drawn from male and female samples, ideally both samples being matched. This results in a poor contribution to the analysis of gender relations, especially if the following definition of gender is accepted: "The gender perspective simultaneously emphasises the symbolic and the structural, the ideological and the material, the interactional and the institutional levels

of analysis".[19] If status is a social construct, or in Tom Fricke's terminology a "cultural matrix", an important methodological implication follows: a woman's status cannot be collected through an individual demographic questionnaire. Our research projects completed on fertility and family planning in Senegal (Charbit and Ndiaye 1994; Petit 1998) and Mauritius (Hillcoat-Nalletamby 2002; see also her chapter below) were based on the same basic assumptions that fertility decisions made by women were entangled in potential gender conflicts, family dynamics, at the juncture of broader community, regional and national contexts and research must combine quantitative and qualitative data and hypotheses specifically addressing the problem of the level of decision regarding next pregnancy: the woman, her peer group, her husband, her mother, her lineage, her ethnic value system.[20] Likewise, religion is defined as an individual characteristic and largely reified, while in Africa individuals change religions or syncretise the value systems to which they are subjected, just as they sometimes change ethnic affiliation in the course of their existence, for example under the pressure of changing relations of domination.

Third, consistent with the utilitarian philosophy which underlies the assumed pure economic rationality of the actors, the implicit hypothesis is that populations and social groups willingly agree to population policies. Following the same Western logic, the social contract is claimed to be firmly grounded on the undisputed truth that all interests are necessarily convergent and consequently that which is good for the nation is also good for the individual. At the heart of campaigns for family planning, low fertility is thus claimed to be the only way towards slow demographic growth, itself alleged to be the key for "maximising national economic growth". By the same token it is assumed that increasing GNP per capita will thus ensure the happiness of the people, a typically neo-Malthusian argument. In the *Weltanschauung* of a poor small farmer, none of the above terms is meaningful and another rationale may be far more relevant. He thinks locally, does not envision national economics, and is unlikely to sacrifice his only asset, his family labour force, to comply with government incentives to reduce fertitity. He is not likely to believe that he will escape the poverty trap by doing so. The same can be said about the ethnocentric vision, imbued with utilitarian rationality, which underlies the diffusion theories of fertility and the classical theory of international migrations, as in Todaro's model. It is far more realistic to hold that changes always necessarily generate tensions. When analysing in the above pages the dynamics of changes and responses, we hinted at several other potential conflicts with regard to marriage, desired and actual fertility, and reproductive health.

Given the "epistemological crisis of demography", as Hammel and Fricke put it, it is clear that epistemological awareness is necessary to better define field research and analyse data. We hold that comprehensive demography is one of the means to create links between anthropology and demography. Put differently, if it is admitted

[19] Ferree, as quoted by Riley, 1997: 116.

[20] About fertility, see Greenhalgh's proposal of an "anthropological political economy of fertility" (1990; also 1995: 13). Even an economist such as Leibenstein credits the heuristic value of the methodology of intensive village studies (1981: 396–397).

that social, political and economic factors are no less important to understand behaviours, interdisciplinarity could benefit from involving sociologists, economists and political scientists, thus turning the duet into a quintet. But finding the proper balance and dynamics in large chamber music ensembles is obviously more complex than two soloists playing a duet.

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Chapter 3
Responding to Poverty in Rural Guinea

Aurélie Godard-Marceau, Barbara Meffe, and Véronique Petit

The Economic, Political and Social Context

Poverty is a complex and multidimensional phenomenon that cannot be reduced to its monetary dimension. As emphasised by Serge Latouche (1998), it is a relative concept. But although this author considers the concept of poverty as a contemporary Western creation, it can be asserted that all economic systems lead to forms of poverty. One is poor because another person is richer and poverty is felt more pressingly when needs increase. Thus it is a "total social fact" (Mauss) that poverty brings into play every social and political institution represented in a given society. This can be observed through relations of dependence and domination between individuals and between groups, clientelism, and exchanges between kith and kin, whether at the level of households, the family in the broad sense, the community and its relations with more or less remote rural and urban areas, and even abroad. Poverty affects every aspect of the life of individuals whatever their status. Furthermore, as far as the economic sphere is embedded in the cultural sphere, the comprehensive analysis of the former cannot be done independently of the societal context (Bourdieu 1977; Godelier 1996; Meillassoux 1964, 1975, 2001; Polanyi 1944; Charbit and Petit 2012; Petit 2013).

At the time of the survey, Guinea was one of the poorest countries in the world as evidenced by its position in the classifications of UNDP and the World Bank[1],

[1] In the annual classification of the human development indicator, Guinea has ranked 160th out of 170 countries since 2002 (UNDP 2004).

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despite its substantial natural assets. Guinea is the world's second largest producer of bauxite, it exploits gold and diamond resources, it has considerable fishing resources and it has a strong agricultural potential due to its network of rivers, rainfall and rich soil. In spite of its advantages, 49.2% of the population live below the poverty threshold[2]. Further, Guinea belongs to the category of countries most burdened by debt. This situation can be explained for the most part by a succession of poor political choices made over recent decades in a context of economic crises lasting since the 1980s and increasing globalisation: political isolation and the development of a socialist economy between 1958 and 1984 (regime under Sekou Toure)[3] followed by a return to liberal economics combined with poor management of public affairs following the accession of Lansana Conté as head of State in 1984. For several years, Guinea went through an unprecedented economic and political crisis which, in 2007, led the urban population to demonstrate against the government, provoking the latter to react violently to quell the dissension.

Although its consequences affect the entire population (delays in the payment of wages to civil servants, the impact of the IMF structural adjustment plan, inflation, etc.), this situation should be viewed in terms of the wider regional context. Guinea is divided into four natural regions by virtue of its climate, vegetation, relief and soils. Maritime Guinea is considered as the wealthiest region owing to the presence of the capital, Conakry, large trading ports and mines (bauxite) (Rossi et al. 2002). These assets make it a region of internal, and marginally international, migrations. Maritime Guinea is one of a number of regions belonging to what the French colonial power called "Rivières du sud", which extended from Gambia to Sierra Leone. The foothills of the western slope of the Fouta-Djalon are succeeded by a coastal plateau, then a number of plains and mangrove swamps that form an aquatic border between the ocean and the continent. The areas far from roads and river corridors are particularly isolated due to problems of access and a lack of infrastructures (Rossi 2001).

The populations live in relative isolation which bridles the monetarisation of the rural economy, favouring the continuation of farming practices in which self-consumption remains a characteristic trait of economic organisation. However, factors such as paying taxes, the purchase of rice during the lean season and the emergence of new needs (health, facilities, and education) oblige households to practice non-agricultural activities to generate income. The populations live in an economic system that no longer corresponds to the domestic self-subsistence economy[4] defined by Meillassoux (1964, 1975); indeed the traditional social frameworks

[2] The EIBEP survey performed from October 2002 to October 2003 set the poverty threshold at 387.692 Guinean francs in Conakry, 313.702 Guinean francs in the other cities and 272.825 Guinean francs in rural areas per capita and per inhabitant (Ministère du plan – DNS 2003).

[3] Describtion of Guinea during this perios are provided by Paulme (1954, 1957) and Rivière (1968, 1971a, b).

[4] The domestic community is the basic unit of a mode of production in which individuals and families collaborate to achieve economic and social production and "demographic" reproduction, taking into account the relationship of production specific to the household (Meillassoux 2003, first edition 1975: 58–59).

of economic organisation are becoming progressively dislocated due to the combined effects of increasing trade with the exterior (regional and international trade, transfers linked to international migrations), the emergence of new social relations between groups (wage earners, increased individualism), and the pauperisation of society. The domestic dimension of family organisation nonetheless persists, since each member of the domestic group participates in production and consumption while retaining an individual share of expenditure.

Macroeconomic changes have led monetary income to become increasingly important in the economic organisation of households. Household members organise themselves to meet two types of expense: daily expense, also called "*la dépense*" in familiar language, is the daily budget needed to feed the family, whether in nature (rice, other cereals or vegetables according to season) or in money (for the purchase of condiments required to make meals), and more occasional expenses (clothing, health, education, taxes, and other consumer items). Women contribute to all the items of the household budget[5], contrary to the usual discourse according to which they only provide a supplement to daily expenditure. The gender division of labour structures the economic capacities of men and women and thus their incomes (Godard 2010; Godard and Meffe 2006). Therefore they contribute differently to the household budget. This gender division of labour is clear regarding daily expenditure: the men provide the cereals and the women the condiments. As for the other expenses, gender division is more associated with the capacities of each person at the time the need is felt. The household's economic organisation is based on mutual aid between its members whose contribution depends on the constraints inherent to the gender, thus limiting their economic capacities (see Godard 2010).

The data used in this chapter, as well as those used in Chaps. 3, 4 and 5, were gathered during a series of interdisciplinary surveys performed in Guinea-Conakry between 2003 and 2005 on a purposive sample of eight villages of the sub-Prefectures of Mankountan and Kanfarandé. Account was taken of the specificity of the natural environment and settlement history: topographic location, degree of isolation and ethnic distribution. During the first phase 708 households and 9762 people were enumerated and 800 men aged 18–69 years old and 700 women aged 15–69 years old were interviewed. In parallel, an ethnological type survey was carried out by privileging observation and in-depth semi-directive interviews with the general population (130 individual interviews and 4 focus groups) and with key informants privileged informers such as the Imam, the teacher, the doctor, the notables, and NGO supervisors (66 interviews). The functioning of village associations and amenities was also evaluated, and the economic activities and resources surveyed.

[5] By budget we mean the total of the incomes available for household consumption. This has nothing to do with a budget in the economic meaning which infers a forecast of accounts, something rural households in Guinea do not keep.

Responding to a Situation Of Impoverishment

The main responses of households are the maximisation of agricultural resources, the development of multiple income generating activities, extending the use of household labour, turning to urban and international migration, investing in education and, lastly, mobilising monetary resources such as savings and loans.

Strengthening and Ensuring Food Security in a Context of Uncertainty

Since the landowner is he who was first to clear the land, immigrants newly arrived and settled from other parts of the country have no access to it, likewise for those who, due to their main activity (traders, civil servants), do not wish to cultivate crops. However, for the great majority of families, farming remains the primary occupation in rural areas: 70.2% of men and 54.8% of women declare that they grow rice. For centuries, rice has been the staple crop in this region and its cultivation continues to underpin the social structure of certain ethnic groups. The ricegrowers have many rites and symbols that express their attachment to, and dependence on, this cereal. 51.2% of men and 54.6% of women consider ricegrowing to be the most important activity (Table 3.1).

The rice fields are located in a huge plain near the villages. Despite the space available, this huge area is only partially cultivated due to the fallow system and the

Table 3.1 Activities practiced and main activity according to gender[a]

	Activities practiced[b]		As main activity[c]	
	Men	Women	Men	Women
Ricegrowing	70.2	54.8	51.2	54.6
Groundnuts	24.1	20.1	14.8	12.9
Other crops	35.3	8.9	4.5	1.1
Total agriculture	84.2	77.4	70.5	68.6
Trade	9.2	42.1	4.1	11.7
Craftwork	22.1	54.8	8.4	10.3
Fishing	23.4	29.0	5.8	6.2
Livestock Breeding	2.8	1.0	1.7	0.7
Civil service	4.8	0.5	3.5	0.4
Salt farming	0.0	5.5	0.0	1.4
Other	3.2	2.9	5.9	0.8
(N)	763	604	575	444

[a]Total higher than 100 (multiple choice questions)
[b]Reference population: active men (18–69 years-old) and women (15–69 years-old)
[c]Reference population: men (18–69 years-old) and women (15–69 years-old) having at least 2 activities (18 missing)

silting of the Rio Kapachez, which no longer allows regulating the irrigation of the rice fields (Rüe 1998). Nearly a third of the farmers fail to meet the needs of their households with the land they cultivate. Both the observations and the interviews, carried out in part during the lean season, showed that food restrictions were considerable during this period. The heads of households seek to ensure one meal a day by giving priority to feeding the active members of the family who work hard in the fields. The children generally eat mangoes. Some families nonetheless borrow to avoid having to consume reserves of grain to be used for sowing. In the absence of modern production methods, rice yields remain dependent on rainfall and acces to the best lands in the mangrove area. The land is tilled with wooden spades (*koffis*), with chemical and natural fertilisers being used only marginally due to their high cost. This situation has not changed since the observations of Paulme in 1957 and Cheneau-Loquay in 1987.

To avoid falling into a cycle of debt and increasing their poverty, households seek to reduce the risk of under-production and thus malnutrition by cumulating several short-term strategies to obtain the best rice yields possible according to their situations. Since the capacities of the cultivated land have reached their limits due to the lack of mechanisation and inputs, they try to appropriate land located in the mangrove swamps rather than that located on the plateau, which provides the highest yields. This is due to the history of the people populating the plateau, as they belong to the lineages installed the longest and, despite the fact that they do not cultivate all their lands for want of available labour[6], they are reluctant to lend or rent them. This is because they are afraid of being unable to recover them if ever they obtain the human or financial resources necessary for their cultivation. The poorest families are therefore refused the loan or rental of land that they coud not purchase whatever the case. They also seek to expand the spatial distribution of plots in the area, in order to reduce risks of damage and loss due to wild animals, herds of cattle belonging to livestock breeders and climate damage.

Failing their capacity to extend arable land, these families seek to maximise their sowing and preserve their harvests. The poorest households help each other as they lack sufficient income to take on salaried labour (day labourers). They call on community solidarity throughout the agricultural calendar. Peasant mutual aid takes the form of an association of men, the *landji,* that groups neighbours and friends

[6] The development of a mangrove plot takes about three years and follows all the steps described by Denise Paulme (1957: 263–264): "The first task, for those who want to develop a new plot [mangrove] in addition to the initial rice fields, is to cut the trunks of the mangrove trees; these remain on site tangled in the roots. Once dried, they are burned. Then comes the hardest work; tearing out the roots. When the land has been cleared, it must next be protected from the influence of the sea. This entails building a dike to prevent, insofar as possible, infiltrations of seawater. The base of the dike is equipped with sluices, each of which, hollowed out of a tree trunk or made of an old dugout canoe, is closed by a plug made of grass and silt. Under the shelter of the dike, numerous small channels serve to drain the salty water still saturating the soil, and to provide irrigation by runoff water. The sluice is closed at high tide and opened at low tide. The rice field thus prepared must be desalinated for two or three years. However, the work and wait are justified, as the land reclaimed can then be cultivated ceaselessly, provided that the dike is kept in good condition and that it ensures the drainage of stagnant water."

belonging to the same generation. During the tilling season, the group tills the land of each of its members. The ricegrower whose plot or plots are cultivated feeds the landji during the day. This type of association is also practiced in the fields belonging to women but at the request of the latter. In addition, the women must pay the *landji*. Therefore the women are more reluctant to call on the help of these mutual aid groups due to their cost. Another type of group, composed of women, is mobilised for transplanting. They act in a similar way to men: they ask for payment when they work in the field of a man and a meal if the plot belongs to a woman of the group. When the time comes for threshing and gathering the rice, the ricegrowers having few financial resources call on a *kilé,* an association of young men. Although their remuneration is traditionally called "cola nut price", since they receive these fruits used classically as a means of exchange in West Africa, they now prefer to be paid in cash. Nonetheless, the amount they receive remains nothing more than a token payment.

The two central concerns are to ensure the subsistence of households and guarantee agricultural production capacity for the following year. Rice production is stored and self-consumed. The peasants avoid having to sell their rice since it would imply the risk of lacking food during the lean season. This situation inevitably leads to contracting debts with Peuhl money-lenders or richer peasants, greatly contributing to the weakening of households. From being only seasonal, poverty becomes chronic and is difficult to reverse in the case of several consecutive years of poor harvests. However, peasant caution would have it that the stock conserved for sowing the following year is never sold or consumed despite periods of penury. The perspective of entering a cycle of pauperisation due to debt, leads an increasing number of peasants to diversify their crops to lessen the impact of a poor rice harvest. Although ricegrowing remains the main activity, a fifth of the farmers now grow groundnuts. These are sold at local village markets, and other agricultural products (fonio, manioc, sweet potato) and fruits (coconut, oranges, bananas, mangoes) are sold at the urban markets of Kamsar and Conakry. This trading allows the men and women involved to supplement their incomes for part of the year. Thus agriculture is not only practiced according to a rationale of subsistance but it also contributes to the households' capacity to generate monetary income.

Developing Multiple Income Generating Activities

The development of food crops is not enough however to ensure income throughout the year, therefore households develop craft and commercial activities during the dry season. The geographical situation and the environment provide households with the opportunity to diversify their sources of income. As the villages are situated in a mangrove area crossed by sea inlets, the men and women invest themselves in fishing, smoking and salting fish, and salt farming. These complementary activities allow them to obtain and spread their incomes throughout the year. Activity here is defined as work in return for an income, so domestic activities are not taken

Table 3.2 Distribution of the reference population[a] by number of activities

	Men	Women
1 activity	35.5	38.6
2 activities or more	74.5	71.4
3 activities or more	32.4	40.1
(N)	763	604

[a]Reference population: active men (18–69 years) and women (15–69 years)

into account. Disposing of even low income throughout the year enables the family to partially respond to its needs and resist the social constraints related to redistribution and solidarity. Indeed, he who has incomes is bound to help the members of his family and community circle who ask for it. The demand for solidarity and redistribution, combined with the absence of a banking system and limited acess to rural credit, considerably reduces individuals' capacity to save. Breaking with these demands means mutually depriving oneself of the capacity to ask in case of need, and isolating oneself socially.

The Measure of Multiple Activities

In the villages studied, the men aged from 18 to 69 and the women aged from 15 to 69 have on average two economic activities. 74.5% of men and 71.4% of women practice at least two economic activities, and more than a third of the men and women (32.4% and 40.1%) have three or more activities (Table 3.2). Most often, the different activities of these people overlap each other throughout the year.

The Profile of Persons with Multiple Activities

Besides gender, the differences in economic behaviours can be partly explained by ethnic belonging. The Baga and Nalu have about twice as much chance as the Soussou of having more than one activity (Table 3.3).

They often suffer from chronic pauperisation and practicing multiple activities is a strategy for facing problems with food and essential needs (Petit and Godard 2005; Godard 2010). Agriculture offers few possibilities for monetary income, and it is often supplemented by processing and trading activities. Persons living in polygamous unions have two times more chance of having multiple activities than single ones. Indeed, the round system practiced by co-wives allows them to gain more free time. As for the men, polygamy provides them with the possibility to rely on a more plentiful workforce (women and children) and thus to distribute this workforce between different activities. What is more, polygamous men have heavier charges to bear than monogamous men, making multiple activities vital for them to increase their sources of income.

Table 3.3 Results of the binary logistic regression model on the impact of demographic variables on the number of activities

Variable tested: multiple activity	Odds ratio
Model variables	
Gender	
Men (ref.)	
Women	0.7098[c]
Age	
18–24 (ref.)	
25–34	1.8374[b]
35–49	1.6913[c]
50 and +	1.1233
Marital status	
Single (réf.)	
Polygamous union	2.1421[b]
Monogamous union	1.5123[d]
Widow/separated	0.7506
Ethnic group	
Soussou (réf.)	
Peuhl	0.8108
Baga	2.3614[a]
Nalu	2.2363[b]
Diakhanke	0.9251
Other	0.8743
Labour force	
Few active persons (réf.)	
Intermediate	1.0997
Many active persons	1.0016
Poverty estimated from habitat construction materials	
Rich (ref.)	
Intermediate	1,2525
Poorest	1,4352

[a]significative between 0 and 0.1%
[b]significative between 0.1 and 1%
[c]significative between 1 and 5%
[d]significative between 5 and 10%

The Social Limits of Multiple Activities

Multiple activities are organised at two levels: at the individual level and at that of the domestic group. Each individual can carry out multiple activities, by practicing them during different periods throughout the year. For example, a woman can combine fishing and selling for several weeks and then devote herself to salt farming for several weeks. Although each individual can practice several activities, multiple activities are also practiced at the level of the households. Men and women do not

carry out the same economic activities. The men generally work on the raw materials while the women process them in order to sell them (Godard 2010). For example, the men gather palm nuts and the women make oil and black soap from the nuts. Female and male activities complement each other in the production process, but they are also complementary in terms of incomes. Combining individual activities leads to increasing the family's income insofar as each member of the family old enough to be active participates in the economic life of the household. The men and women maximise the household's income within the limit of their material and social opportunities. However the opportunities and leeway for action enjoyed by women are considerably limited by the gender division of labour and their status.

Mobilising All the Household's Human Resources

Although male discourses – sometimes repeated and endorsed by the women – convey the idea that it is the men who ensure the subsistence of their family, the data show that it is all the labour available in the family that contributes towards ensuring its food and monetary needs. Here, such discourses tell more about the perception of male and female roles than about daily domestic reality. Indeed, although the women are less active than the men (85.4% vs 94.6%), a large majority of them are nevertheless active. What is more, as we have already emphasised, the definition of economic activity used in the survey only takes into account activities procuring an income. Therefore activity and work should not be confounded.

The women without any economic activity are not "seated" according to the common expression; they most often work in the economic activities of their husbands without earning their own income, as well as performing the domestic activities. Non-economically active women do not remain "seated" according to the common expression; they most often work for their husbands without earning any income, while performing the domestic activities. Recourse to female activity is however limited by the time they have to devote to domestic tasks. The economic organisation of women cannot be analysed without taking into account time management (Coquery-Vidrovitch 1994). They mobilise child labour (their own children or those entrusted to them), either to relieve them from certain domestic activities, or to use it for certain production activities such as making palm oil or black soap and selling them (2.7% of girls). According to the data obtained from the Core Welfare Indicators Questionnaire (CWIQ), 30% of children had worked during the seven days prior to the survey. However, children having a real economic activity are rare (7.7% of girls and 10.6% of boys); the others make up the family labour force (Table 3.4). However, it is possible that child labour was underdeclared. First, because it is difficult to define: at what moment does a child cease to be an occasional aid and support the family in the economic meaning? Second, because the help children provide often appears to be part of their education and so it is not considered as work; such is the case of work in the fields. Furthermore, classification in the "child" category is based solely on the age criterion: that of being under

Table 3.4 Status of active 7–14 years old children (7 days before the survey)

	Girls	Boys
Unpaid family help	92.3	89.4
Independent	6.3	5.9
Apprentice	1.0	3.7
Other	0.1	0.5
Not declared	0.3	0.5
Total	100.0	100.0
(N)	1383	1723

Reference population: active rural population

Table 3.5 Main activity of children (7–17 years old) who worked during the 7 days before the survey

	Boys	Girls
Agriculture	91.1	93.5
Commerce	0.9	2.7
Other (production construction services	7.6	2.4
Not declared	1.4	1.4
Total	100.0	100.0
(N)	1725	1385

Reference population: active rural population

15 years old for girls and under 18 years old for boys. This definition, commonly used in international studies, seems too broad in developing countries, where adolescence does not exist as such and where a girl of 15 can be a mother and thus already an adult in the social meaning of the term.

The economic activity of children mainly concerns agricultural work (Table 3.5). The activities of boys, however, are more diversified than those of girls. In their group (8%), 2% practice craft activities, 1.3% work in construction, 1.7% in services and 1% have other non-classified activities. Children's tasks are determined according to their age and gender. The youngest help to watch over the fields, the older children perform gendered tasks practiced by the men and women of the producing group. In the family economic organisation, the children take part in all the activities whether economic or domestic. They can perform economic activities from which they can obtain personal income, though more often they participate in the economic activities of the adults of the household, especially those of the women. In addition, the women are often reluctant to accept the idea of educating their children, especially the little girls, as this would deprive them of a not inconsiderable supply of labour. In other words, this economic organisation gives children little chance when adults of quitting the situation of poverty in which their parents live.

Table 3.6 Reason for migration by gender

	Men	Women	Total
Marriage	1.0	46.9	23.3
Fostered Child	13.0	23.3	18.0
Work	33.6	3.7	19.0
Education/studies	40.4	15.9	28.4
Medical care	0.8	1.6	1.2
Family reunification	2.5	7.7	5.0
Other reasons	3.3	0.8	2.1
Family help	1.3	0.3	0.8
Koranic schools	4.3	–	2.2
Total	100	100.0	100.0
(N)	399	378	777

Source: Poirel (2003: 83)

Migrations: A Marginal Solution

Whereas migration is one of the classical solutions taken in view to improving a situation of insecurity and poverty, this option is taken by only a few households of this population. Indeed, the share of labour migrations is not very high since it concerns only 33.6% of migrant men and practically no women (Table 3.6). Emigrating, notably abroad, requires both financial capital and social capital (networks, migratory experience, knowhow), which few of the households observed seem to possess. The groups of Peuhl and Diakhanke (cf. Chap. 4) that have these financial and human resources are the only ones that have succeded in freeing themselves from a subsistence economy. The Peuhl are very involved in national and international trade and, what is more, they can rely on a diaspora that began long ago and which is already well and solidly established in Africa, Europe and North America due to the country's political history.

As for the Diakanke, they generate highly lucrative profits from trading in groundnuts and from the religious economy (Petit and Godard 2005) that they reinvest in international emigration, thus setting up migratory networks in Europe and North America. By "religious economy" we refer to two types of economic activity linked to religion developed by regionally reputed marabouts: the teaching of Islam in the medersas and therapeutic practices linked to the beliefs pertaining to this religion. The Peuhl and Diakanke know how to take full advantage of the positive consequences of globalisation. Mobility is a resource, which in their case does not extricate them from poverty, but it does reinforce their position at the top of the economic and social pyramid.

Most households do not have the capital required for the investment entailed by a migratory strategy. Given that these families are mainly those of ricegrowers, getting together the financial capital needed to send a member of the household to the city implies the mobilisation of all its members and sometimes leads to borrowing.

Next, this departure amounts to the loss of an asset in the agricultural production process that is not necessarily offset by the introduction in the household of an individual belonging to the same sociodemographic category. Indeed, men emigrate to seek employment whereas women enter the family through marriage.

The labour of fostered children in no way compensates the activities performed by men. Furthermore, due to the economic context in Guinean urban areas (informal economy), if young men have no specific professional skills, for example mechanical, and without the support of an ethnic or community network, they find it very difficult to earn a wage despite the great expectations placed on them. If they fail, they are frequently unable to return to their village for reasons of honour and pride, since the mission entrusted to them by their family has come to nothing. They thus become debtors as they have not fulfilled their part of the migratory contract (Guilmoto and Sandron 2000). The (rare) internal migrants who succeed their integration in the informal economy transfer money or gifts in kind (fabrics, sacks of rice), which above all contribute to the satisfaction of basic needs. However, the transfers made by international migrants are invested in the habitat, equipment (cell phone, television, electro-generator), higher education, health and in the development of commercial activities.

Professional Apprenticeship and Education: The Medium and Long Terms

Apprenticeship and education are medium term responses since families consider that children with certificates and degrees can obtain salaried jobs and later represent sources of regular income. This conception of the future relies heavily on the present situation of the families (do they have the means to invest in their children's education?), their perceptions of education (which children are encouraged to pursue their studies?) and the country's socioeconomic situation (education supply, public sector downsizing). Depending on the prevailing social perceptions, schooling must allow the child to acquire a higher economic and social status than that of their parents, which is not the case in Guinea, where young graduates are no longer systematically recruited by the government due to the implementation of structural adjustment plans. What is more, given the weakness of the private sector, neither can they find opportunities in companies. As with migration, education and apprenticeship require an investment based on a risky wager given the situation in Guinea, and the cost of such education cannot be accepted by households unless its advantages are real. Under these conditions, education does not appear to be a priority. Thus only 64% of men and 49% of women under twenty had been educated or were attending schools at the time of the survey (Table 3.7)[7].

[7] Persons defined as being educated can be in very different situations. For example, a young boy may have attended primary school, while another may have gone to high school and yet another has received schooling for only one year.

Table 3.7 Proportion of persons who had been educated according to gender and age group

	Men		Women	
	%	(N)	%	(N)
< 20	63.8	68	49.1	104
20–24	39.4	100	17.2	85
25–29	45.1	97	14.5	90
30–34	42.4	89	17.8	97
35–39	35.5	82	9.1	85
40–44	39.9	88	15.4	46
45–49	51.3	81	14.7	50
50–54	29.4	44	16.1	53
55–59	22.4	53	4.3	38
> 60	9.7	97	5.0	50
Total	37.9	799	18.9	698

Reference population: men 18–69 years old and women 15–69 years old

Rural households prefer socialising their children through traditional activities and thus they are integrated in the household economy as early as possible. Nonetheless, the impact of child labour has negative consequences on education: some of the children do not attend school so they can participate in the family's economic and domestic activities, while the others, especially the girls, stop their education after primary school in order to avoid the cost of migrating to a village with a secondary school[8]. Moreover, the domestic work done by children, even if it takes place outside schooltime, increases the risk of failure (Marcoux et al. 2006). Competition between learning and economic activities occurs to the detriment of the former (Kouwonou 2006), above all when education is not synonymous with social advancement.

Under these conditions apprenticeship appears to be a realistic alternative, since it allows families to hope for a faster financial return from the child who has left his family to receive vocational education. Vocational education in the framework of schools is still rare in Guinea and the acquisition of a craft skill is done through oral transmission of knowhow from a master. The child placed as an apprentice is no longer a charge for his family since his food and board are provided by his teacher. In the Guinean economic context, youths who have attended vocational apprenticeships have a greater chance of finding a job than a youth that has received high-school education. This explains why the number of youths leaving for apprenticeships remains low: only 13.1% of male migrants and 3% of female migrants had left the sub-prefecture of Mankountan.[9] The lack of attractiveness of apprenticeship can be explained in different ways that are not exclusive of each other. The first reason is linked to the investment required by the departure for apprenticeship. If the apprentice is fully taken in charge by his master, it is nonetheless necessary to pay for his

[8] In the sub-prefectures studied, only the villages of Mankountan-centre and Victoria had a high school.

[9] We do not have data for the sub-prefecture of Kanfarande.

transport and installation in his new town. Besides, it is considered as a loss of labour. The second reason could be the difficulty that the rural young have in finding a master in the towns, something that transpired from the interviews.

Secondly, interviews revealed that the rural young had problems finding a master in the towns. For the girls, in addition to the former reasons, there is the idea that apprenticeship, like education in the towns, could pervert them. The education of a child thus mainly depends on the family's economic situation when it reaches school age. Only children whose families do not require labour and have sufficient resources can ensure continued and long-term education. Education remains a luxury for families that above all seek to guarantee their food security.

Saving and Borrowing: Accumulation and Redistribution

Less than half the persons surveyed, whatever their gender, declared that they saved part of their income during the year prior to the survey. Undoubtedly, the responses regarding saving may have been subject to under-declarations related to the fear of seeing this saving coveted by others, especially since the survey conditions did not always ensure that the surveyor and the surveyed were alone during the administration of questionnaires. We do not have data on the amount of savings since, in the same way as those on income, they are difficult to collect due to under-declaration, and also the difficulty for the respondents who were unable to calculate their incomes precisely when they did not depend on only one fixed season (annual, monthly income), meaning that these incomes were random. Whatever the case, the observations showed that household savings were meagre since, in the case of urgent need for cash, they usually had to turn to borrowing. There is practically no banking system in rural areas and only the wage earners of mining companies and civil servants have access to saving and credit under modern conditions. Three modes of saving co-exist in the study area: the private hiding place (65.4% of men and 48.7% of women who saved); the tontine[10] (8.1% and 36.7%, respectively); in addition, 22.5% of men and 16.6% of women declared that they entrusted their savings to a trustworthy person, in contradiction with the discourses often expressed by both men and women who signalled that thefts occurred within households (Table 3.8). In the questionnaires, breeding (goats, sheep, poultry) was considered as an economic activity and not as a means of saving. However, fieldwork revealed that it was conceived as an investment more frequently than an activity: a young animal was purchased at a low price in the hope of selling it for a higher one in case of need.

[10] Tontines are associations whose primary aim is to ensure a type of solidarity between its members so they can start an economic activity. The members all take it in turn to pay a subscription at regular intervals, and receive the total amount collected. This system allows them to dispose of a sum they would otherwise have been unable to gather alone and thus finance an entrepreneurial project to increase their incomes (buy land, a herd, open a shop).

Table 3.8 Type of saving practiced according to gender

	Men	Women
Tontine	8.1	36.7
Rural credit	6.4	3.4
Bank	1.6	0
Private hiding place	65.4	48.6
Entrusted to someone	22.5	16.6
Other	1.9	0.1
Refusal to respond	0.6	0
(N)	383	307

Reference population: men (18–69 years old) and women (15–69 years old) who saved part of their income over the twelve months prior to the survey. Multiple choice question

The types of saving and the limited amounts saved can be explained by the low levels of income, and by social obligations of mutual help that lead to borrowing systems close to the practice of gift/counter gift decribed by Mauss (1924). Saving while the rest of the household as a whole is in need is seen as a sign of selfishness, individualisation and thus of discord with the group. He who has money must share it with he who has none and this social and religious obligation considerably reduces the capacity of individuals to save.

There are two types of borrowing. Borrowing in the family is done without interest though participates in a rationale of gift/counter gift. For reasons of honour and prestige, it is impossible to refuse to lend money, even if it means becoming a debtor oneself to do so. It is noteworthy that, far from the Western view that tends to present family and community solidarity as natural and spontaneous, it is not always experienced positively as it runs counter to the emergence of an increasingly individualistic vision of social success in a society in which paths to wealth and poverty run side by side. This solidarity can obviously only function between individuals linked by family, social or political relations involving mutual aid and certain forms of clientelism. The practice of usury sets the limits of solidarity in a context where the majority of the population is poor. This observation also leads to certain culturist interpretations. Indeed, the Peuhl Muslims practice usurious rates whereas according to Islam, loans granted in the group to which the contractors belong must be done without interest. The change from solidarity to economic dependence indicates the introduction or the accentuation of relations of social domination and hierarchisation.

Given that there is no formal banking system, most loans are contracted in an informal system from usurers lending money for interest. Households in need borrow from the wealthiest individuals. This lending system is part of the rationale governing ethnic relations, since in the areas studied it is usually the Peuhl or the Diakhanke who lend money to the other poorer ethnic groups (Petit and Godard 2005). It is the poorest households who use this system in the lean season, thus they can borrow either money or sacks of rice that they pay back twofold at harvest time.

These households therefore enter a circle of indebtedness-impoverishment since the reimbursement of their debt truncates part of their agricultural income and brings forward the start of the next lean season, when they will again be obliged to take out loans. This occasional though costly solution leads individuals into a situation of social dependency. If the ricegrowers cannot reimburse their creditors they will lose their land, thus their social status and they will find themselves marginalised. Borrowing is therefore the most extreme response to a situation of poverty.

Conclusion: Marginal Evolutions in a Context of Uncertainty

Our analysis of the economic organisation of rural households in Maritime Guinea led us to identify six possible responses to the poverty in which they live: the maximisation of agricultural resources, multiple activities, the mobilisation of household labour, migration, education and apprenticeship and, lastly, saving and borrowing. However, only very few households have the financial capacity or the social capital to use all these responses. The households in the least secure economic situations, that is to say which are indebted and which fight every day to ensure their food subsistance, are obliged to focus on short-term responses: multiple activities, the practice of an activity not requiring any investment and which thus generates little income, the mobilisation of the household's human resources, and borrowing. Consequently, it is not possible to speak of a strategy in response to poverty, which would imply a long term vision and the design of clearly conceived projects, objectives that are beyond the scope of this category of household. The only perspective is survival.

Households that are neither in a situation of food poverty, nor in chronic debt, can develop responses to poverty that imply a medium or long term vision and financial investments such as education, apprenticeship, urban and international emigration, and the development of commercial activities (non agricultural products). Although they are aware that they are undergoing social and economic change, these populations find it difficult to implement responses which, since the economy is embedded in the sociocultural sphere, will undermine the social organisation, power relations and values that have structured their society for centuries: gerontocracy, male domination, solidarity.

This situation carries the seeds of social division and a social hierarchy based solely on economic success. The dynamics of poverty and enrichment highlighted previously partially express this social evolution. Furthermore, the political context (corruption, internal ethnic conflicts, chaotic democratisation) considerably slows down economic initiatives, as national and international actors fear a coup d'état in a regional context already shaken by violence and instability.

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Chapter 4
Socioeconomic Strategies and Ethnic Dynamics in Maritime Guinea

Véronique Petit and Aurélie Godard-Marceau

The ethnological approach focuses particular attention on taking into account the different societal levels (individual, family, community, associations, ethnic), as well as the relations of power and dependence that determine that which is socially possible for each actor as a function of the group to which they belong (lineage, clan, cast) in the community. It is within this margin between tradition, constraints and new opportunities that families build and negotiate their responses to the economic situation (crisis, impoverishment, growth). Thus it is possible to develop an interpretative anthropo-demographic approach to the situations described from contextual and qualitative standpoints.

Ethnicity and Demography

Before presenting the results, it is important to return to the concept of ethnic group in view of the literature devoted to it and the political challenges to which it gives rise. Although anthropologists had contributed to reifying ethnic categorisation due to their role in the colonisation process, since the advent of independence and its political and scientific consequences on their discipline, they have subjected this concept and the criteria underlying its formulation to much criticism, with the result that they have finally deconstructed this method of classification (Barth cited by Poutignat and Streiff-Fenart 1995; Kertzer and Arel 2002; Bouju 1995). However, whereas there is no doubt

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about the pertinence of this deconstruction on the theoretical level, it does not imply that this method of categorisation is no longer used in social science surveys. This practice can be explained by different compounding factors that act at several sociological levels: the institutional framework that strengthens the traditions of statistical data collections, the national political context which justifies the existence and recognition of ethnic groups, and the fact that the processes of enthnic belonging and ethnicity conserve strong social significance for the individuals themselves.

This empirical observation means that far from being rejected, the use of this concept of ethnic group must on the contrary be studied and contextualised still further. This entails, from the statistical angle, concretely grasping what is measured by "ethnic group" (who is included in this group and in reference to what criteria: belonging to a clan, linguistic practice, filiation, self-declaration, assignation, etc.), and from the interpretive angle of attempting to understand how this form of identity is built, what it covers, how it is used and why it is susceptible to changes. The variable of ethnic group, like gender or religion, has a far larger and more complex implicit content than what its treatment in demographic surveys renders visible. Demographers tend to essentialise these variables, whereas their construction is both cultural and historical. They forget too quickly that the ethnic group results from identity construction rather than being a fact of nature. It implies a dual process of assignation: for example, a person is defined as "pullo" and is classed as "Peuhl"; and this dual assignation is prone to change as it is integrated in power relations. Bourdieu (1991) underlined that the act of naming gives structure to the world and that defining the usage of words give the power to create social reality. What is more, as emphasised by Barth (1995), identifying oneself with a group is not only a sign of belonging, it is also a sign of differentiation. An individual considers himself to be a Peuhl because he feels culturally distant from the Soussou or the Baga.

Classical demography does not permit understanding these social processes. Ethnic categorisation, which fixes and simplifies the identity of individuals and groups, has become a classical criterion for analysing populations through censuses and large-scale sureys. The list of ethnic groups goes without saying; its construction is never explained. Its use is disputable from the scientific standpoint since it prevents any dynamic analysis of identity in an era of globalisation, with international migrations sapping definitions and redrawing the frontiers between human groups, while its political utilisation is always suspect. Using an ethnic category highlights how demography and politics are inextricably linked, and too often implicitly. Our purpose is to show, by taking an interdisciplinary approach, that the ethnic dimension covers a sociological reality behind the conceptual fog, and that the critique it provides can contribute to the emergence of a new tool for social analysis: how do individuals and families negotiate their identity in an increasingly open context with regard to internal and international mobility, the effects of the market economy and globalisation on local economies, and the increasing attraction of modernity.

The populations questioned in Guinea spontaneously assign themselves to an ethnic identity. Answering the question "What ethnic group do you belong to?" does not pose a problem to the populations concerned; likewise for that on caste, since these two forms of categorisation are still employed socially and are accepted due

to the joking kinship system[1]. This definition of identity generally refers in discourses to a filiation, territory, language, or religion. But this dimension must be deepened and above all conceived as a dynamic factor whose geometry varies according to the political, religious, social and economic context. When scrutinising the life stories that are drawn from genealogies, one quickly perceives that the reality is less simple than the words of the respondents would lead one to think at first glance. For example, a mother and father who do not belong to the same ethnic group, an ancestor forgotten in the geneology because his caste or ethnic group is devalued, ending with the confession that the lineage has influenced and negotiated a shift of identity towards another ethnic group because it is easier to develop a particular economic activity or settle in a particular place. Analysis of the ethnic differentiation process leads to raising the question of the relations that exist between economic rationality and the cultural dimension in a specific social and ecological context. It entails showing which opportunities are open to ethnic groups and how they can mobilise their resources (their capital) as a function of their perceptions and the position of their ethnic group in the local and national socioeconomic organisation. Thus we will highlight the existence of ethnic economic niches (Guyer 1997) in the population studied.

The Ethnic Groups of Maritime Guinea

Maritime Guinea presents a mosaic of ethnic groups whose complex distribution results from a long history of migrations and settlement (Bazzo et al. 2000: 42). The first accounts of populations living on the coast were given by the Portuguese navigators that reached the coast of Guinea at the end of the fifteenth century. Little is known of the population dynamics of Maritime Guinea. Most of the cultural and linguistic groups of the region came down from Fouta–Djalon. The ancestors of the Baga, Nalu and Mikhifore established loosely hierarchical societies that cultivated rice, fonio and millet on the land cleared and burned in the shallows and plains. Migration to the coast appears to have begun with the arrival of the first groups of non Islamised Dialonkes and Peuhl in the mid-fourteenth century. It is likely that land and cultural pressure, combined with the difficulty of cohabitation between strongly structured and centralised societies of livestock breeders and looser social organisations, drove the latter towards the coast. The pressure then increased with the establishment of the Peuhl in authority, their rapid Islamisation, and the declaration of a jihad at the beginning of the eighteenth century. It was during this period that the Nalu and the Baga, who are animists, fled the Islamisation imposed by the Peuhl to find sanctuary along the coast as far as Guinea Bissau. These migratory

[1] Joking kinship is a type of social relation codified by the custom which allows members of two potentially socially antagonistic groups (castes, ethnic groups, family groups) to mock each other without them being offended and without it resulting in open conflicts. This practice structures social relations in many Western African societies.

movements continued until the beginning of the nineteenth century. The current Baga settlements were strengthened by groups having very different origins that gradually became assimilated. The Guinean coast thus served as a refuge for groups of continental origin with similar agrarian practices based on slash and burn agriculture (Baga, Nalu, Landouma, Diakanke, Mikhifore, Tubaka). The Soussou (who belong to the Mande group) were the last to descend from the Fouta-Djalon, and quickly imposed themselves over a large part of the coast, due to their political organisation and because they were the first to convert massively to Islam and its propagation. They above all settled on the land on the plateaus and hills. The peoples that had preceded them now form the minority and are drawn into a process of assimilation, as they speak Sassou more and more frequently and convert to Islam. The villages and languages of the Nalu, Baga and Landouma continue only in a context of cultural isolation and economic marginalisation, as we will see.

The current relations between ethnic groups were forged during this history of conflict, composed of sociocultural, religious, linguistic and economic balances of power. Also to be taken into account with this history is a more recent dimension of national politics. Since independence was granted in 1958 and the accession of Sékou Touré as head of State, the attribution of power in the upper strata of the government has depended on ensuring ethnic balance. Any appointment to an administrative and political post is considered according to the ethnic context and the power relations between the Peuhl, Soussou and Malinke. In a stereotyped way, though one that reveals the tensions and perceptions exising in Guinean society, the Peuhl are supposed to hold the economic power through their commercial activities and the diaspora, the Malinke represent the political opposition since an attempted coup d'état in 1985, while the Soussou are allotted the control of the administration. In the report of the 1999 DHS survey, the "ethnic group" variable was not used in the analyses, except those concerning excision, and this was mentioned only in the sample presentation table. The variables "religion" and "natural region" make it possible to decipher certain specific ethnic characteristics as a function of population distribution, for example, it is the small ethnic groups of the Guinea Forest Region who are mostly converted to Christianity, while Upper Guinea is populated by the Malinke.

Table 4.1 presents the ethnic distribution of the population studied. We have chosen to group the Baga, Landouma and Nalu due to their strong cultural and economic similarities: they were, or still are, animists; they tend to preserve the use of their language; and their economic organisation is based on ricegrowing. We will broach this issue, as did Denise Paulme (1954) in *"Gens du riz"*. The category "others" represents 11.5% of the population. It comprises more then ten ethnic groups, and thus underlines the attractiveness of Maritime Guinea which is the richest region in the country (bauxite mining and high agricultural potential) and thus an area of immigration. We do not retain the "others" category in what follows of our analysis due to its heterogeneity.

Table 4.1 Ethnic distribution in the sub-Prefecture of Kanfarande

Ethnic groups	Number	Percentage
Soussou	341	6.4
Peuhl	1054	19.9
Diakanke	1315	24.8
Nalu, Baga, Landouma	2039	38.4
Others*	552	10.5
Total	5301	100

*This category groups the Malinke, Kissi, Toma, Guerze, Mikhifore, Sarakole, Bambara, Mandingue, Tukular, Balante, Temne

Ethnic Belonging as a Marker of Demographic and Socioeconomic Behaviours

The Sassou are the majority ethnic group of Maritime Guinea, though certain areas such as the sub-Prefecture of Kanfarande are cultural enclaves. It is called Naloutaye, the kingdom of the Nalu. They withdrew to this region during the Jihad launched by the Peuhl. The Nalu were not Islamised until the end of the nineteenth century when the last Nalu king, Dinah Salifou, who had been educated at a Koranic school, imposed Islam as the religion of his people. Situated at the mouth of the Rio Nunez, this kingdom has three advantages: the mangrove lands are excellent for ricegrowing, the isolation of the villages – many of which are islands and penisulars accessible only at high tide – protects them from possible attacks, and the mouth of the river is a strategic position for monitoring trade. This kingdom was founded in the second half of the eighteenth century. A century later, the king attracted Malinke and Diakhanke merchants in order to make the kingdom a major trading centre. Although few Malinke now live in the region, the Diakhanké settled in the district of Lansanaya. This district is situated near the port of Victoria where the dugout canoes leave for Kolaboui, a large port of the region. The Peuhl set up small coastal kingdoms which paid a tribute to the kingdom of Fouta-Djalon. This explains the presence of the Peuhl in all the villages studied.

Access to the land is controlled by the Nalu and thus is limited regarding the other ethnic groups. In the villages where the Nalu are in majority, the most fertile land belongs to Nalu families. Although these lands are not always exploited for want of labour, the Nalu are reluctant to lend them to others as they are afraid of being unable to recover them. Land is not purchased but belongs to he who is the first to clear it. Once cleared, the land belongs to the lineage and is inherited by the sons of the family. The Nalu therefore own a large share of the land. For example, in the village of Koukouba, at the heart of the Naloutaye, where the sacred forest is located, the Nalu control the whole area. The Peuhl, who settled later in the village, were allotted a distant and sandy area to build their homes and they received smaller

agricultural parcels. It is thus the history of settlement that has defined the relations between the ethnic groups. It also partially explains the economic systems that have been established by each ethnic group. Indeed, depending on the possibilities offered to each individual (access to land, roads and rivers), the different ethnic groups have either continued to practice their traditional activities, or chosen to develop new ones.

The Sassou Model

This ethnic group is present throughout Maritime Guinea, however they form a minority in the area observed and they make up 6.4% of the population enumerated. The settlement of families in the sub-Prefecture is partly due to the presence of the administration and services in the village of Victoria. Indeed, the functionaries, especially those sent to the sub-Prefectures, are mostly Soussou, an ethnic group loyal to the power in place. In this survey, 12% of the Sassou men enumerated declared that their main activity was that of "*fonctionnaire*" (a state paid civil servant)– versus 4.1% for the Nalu/Baga/Landouma, while none of the other ethnic groups declared that being a functionary was their main activity. Of the 36 men working for the administration and questioned when administering the questionnaires, 6 were Soussou versus 12 Nalu. This ratio of 1 Soussou for 2 Nalu in the administration was far from the ratio of 1 Soussou for 6 Nalu in the population enumerated. 46% of the Sassou household heads enumerated were not born in the village where they were surveyed, versus 38% for the Peuhl, 5.5% for the Diakanke and 22.5% for the Nalu. The Sassou immigrants practice more diversified activities: some are peasants, functionaries and also craftsmen. The Soussou born in the villages studied mainly cultivated groundnuts and rice. Most of their lands were inherited and they did not have to ask for a gift or to clear new land.

Sassou households are characterised by small family structures. Seventy five percent of households comprise fewer than twenty persons enumerated. This can be explained by two factors. First, many Sassou men are monogamous. Monogamy is undoubtedly often a stage preceding or following a polygamous union. But the fact that 62% of married men at the time of the survey were monogamous considerably reduced the size of the households, contrary to the Diakanke and Nalu populations for which the importance of polygamy leads to increasing the size of their families. What is more, the Sassou women questioned had an average of 3.8 children versus 5.8 for the Peuhl women[2]. This relatively low figure could indicate the possibility of birth control, though the data collected on contraception did not allow us to assert such a conclusion. Although the level of knowledge of different contraceptive

[2] The number of children per woman is calculated from the number of births declared by the women answering the questionnaires. These women were from 15 to 59 years old. It is the average offspring reached by the women at the time of the survey. Our denominator here only takes into account women having already had at least one child.

methods was good, declarations regarding the use of modern contraception were very rare and were certainly subject to under-declaration. Nonetheless, the fact that the Soussou mostly lived in Victoria, which is the seat of the sub-Prefecture, gives them easier access to the health post. It should also be emphasised that whatever the region, the fact of living in even a small administrative centre increased the opportunities available to families in terms of education, health and the development of commercial activities, due to the presence of a road and a market in contact with the outside.

This geographic localisation has an impact on lifestyles, notably with respect to education. The net rate of school attendance was 47% for primary education and 11% for secondary education[3]. This can first be explained by the closeness of primary schools, and also secondary schools, since the area of Victoria has enough teachers to cater for all the primary classes and has the only high school in the sub-prefecture. But the closeness of education infrastructures does not suffice to explain a net rate of education higher than for the other ethnic groups (except regarding the Nalu, which will be explained further on). There is also a village program in Victoria that encourages parents to educate their children. The presence of administrations and functionaries gives schools a positive image as it conveys an idealisation of the job opportunities that could be had by educated children. In a social context still largely dominated by the agricultural economy, this perception of a possible future makes it acceptable for parents to think of doing without the labour represented by their children. They thus have the feeling that the gain (job, wage) will be greater than the capital invested (cost of studies, loss of labour).

The presence of the sub-Prefecture's only high school also explains why Sassou households are those which receive the largest number of children in care, on average 1.8 per family (versus 0.5 for the Peuhl). The families residing in the remotest villages and which want to educate their children must put them in the care of a family living in Victoria. When a child is entrusted within the family, the care responds to the logic of family solidarity. But when a child is entrusted to a family without ties, the parents must pay the receiving family with money or in kind. Taking in secondary school children is therefore a source of income for many Sassou families.

The Peuhl Model

Traditionally, the Peuhl are economically linked to commerce and livestock breeding. In the population studied, 47% of men[4] had livestock, and half of them considered it as their main activity. Only a few families had a real herd, with the others owning only a few head of cattle which above all amounted to a means of saving. The symbolic dimension of owning cattle is strong since the Peuhl identity is built

[3] Net rate of education calculated by Balde (2004).

[4] 93 Peuhl men were questioned when administering the questionnaires.

around livestock breeding and transhumance. Despite the fact that livestock breeding fulfils no actual economic function for the Peuhl of Kanfarande, trading remains an important activity. Like the Soussou, 8% of men consider commerce as their main activity versus less than 3% for the other ethnic groups. The Peuhl own shops. They buy manufactured items like tobacco, candles, batteries, etc., that they then sell in the village. This type of commerce requires a certain amount of capital up front. On the contrary, the other ethnic groups stick to selling their agricultural produce (vegetables, fruits, groundnuts, and more rarely rice since it is intended for consumption). This type of commerce requires no investment though depends on the harvest being sufficient to feed the entire family and leave a saleable surplus.

The Peuhl can be distinguished from the other groups by the high proportion of men active in craftwork (10.5%). These men are blacksmiths, cobblers and basket weavers, skills that correspond to the traditional econmic activities linked to the cast system specific to each ethnic group. Neither the Soussou nor the Nalu have castes that practice these types of craftwork. This shows that economic opportunities are governed by the social stratification that persists and is internal to each group, and that recourse to these activities is culturally determined and prescribed. The Peuhl generate monetary income through their craft and commercial activities. 37.6% of the men practicing farming declared that they sell part of their harvest while 5% sell all their production. This financial income, contrary to that of the Diakanke, is difficult to evaluate. Indeed, although the Diakanke purchase consumer goods (motor cycles, telephones, electro-generators), thereby displaying their success, the Peuhls reinvest their income in new activities. The habitats of these populations are not subject to investment to create a space of social representation. The money earned is used to fructify the capital either by expanding the commercial activity, or by practicing usury. Credit is granted either in kind (rice), or in money. Thus, although there is an economic synergy between the groups from the macroeconomic angle, this interdependance becomes a source of rivalry and conflict at the social and political levels. Domination cannot be total if it is no longer tolerated and accepted socially.

The difficulties of obtaining precise eeconomic information when administering the questionnaires sometimes prevented us from evaluating the standard of living of the populations. They were obviously reluctant to disclose the state of their finances, even to passing strangers, thus they underreported their incomes in their declarations. They are now also acutely aware of the social differences that have set in and the predominance of economic power. They know that their social positions depend on their incomes. The visibility of ostentatious expenses and purchases of consumer goods makes them easier to identify and thus measure. Conversely, types of hoarding and investment are difficult to estimate. This bias has been found in the great majority of surveys on poverty. The living standard of households is generally estimated on the basis of habitat conditions and the consumer goods owned. If the household invests little in consumer goods, but saves or develops new activities using the money earned, it is considered as having an average standard of living, perhaps masking real wealth. An ethnological observation making it possible to

establish relations of trust with the population would lead to better results regarding this aspect.

The types of activity practiced by this ethnic group require a certain amount of autonomy and spirit of initiative that must not be rigidly constrained by their social organisation. This has contributed towards building a relatively autonomous mode of family functioning and the structure of a nuclear family. The organisation of the Peuhl is rather individualistic. Contrary to the ricegrowers, they have few mutual aid systems. The families live independently of each other. Their mode of habitat is moreover characteristic of this situation. The Peuhl compounds are the only ones to be fenced. The households explain that it is to prevent herds from damaging the houses. But when travelling in the field, we observed that there were too few animals for this to be the only explanation for this mode of construction. Indeed, the rare households that possessed herds kept them outside the village, thus there was no risk of them entering the compounds[5]. Peuhl families are attached to their independence.

These social rationales are expressed demographically by families of average size: Sixty six percent of the families enumerated were composed of fewer than 20 persons. Sixty two percent of married men were monogamous and fostering was seldom practiced (on average 0.5 child per family) which explains the smaller size of Peuhl families (14.2 versus 26.3 for the Diakanke) and their narrow range (1.9 unit). The structure of the Peuhl household is much like that of a nuclear family comprising two parents and their children. Peuhl women are very fertile, giving birth to an average of 5.8 children per woman, compared to 3.8 for the Soussou. They enter into union early (average age of the first union: 16.6 years old) and therefore have a long reproductive life. The Peuhl are the only ethnic group to declare an average age at marriage under 17 years old. The other ethnic groups clearly overstated the age at which their women marry in order to conform with the law, 17 years old being the legal age of marriage for Guinean women. The honesty of the Peuhl should also be interpreted as aloofness and contempt expressed at, and signalled to, the legislation and the authorities. The girls are destined for marriage and thus receive little education. A long period of education for young girls is, moreover, sometimes considered as a handicap. Indeed, their fathers fear that they might not succeed in marrying them off. The status of the Peuhl woman is strongly linked to Islam which greatly values the status of mother but which gives her little room for freedom.

Surprisingly, although they have the resources, the Peuhl along with the Diakanke are the two groups that educate their children least, both girls and boys. However, the interviews revealed that the Peuhl instrumentalised schools and that the choice of children educated is considered with the medium term in mind. They do not educate the eldest who are used and trained as farm labourers or craft workers, depending on

[5] In West Africa the word “compound” is used to define the habitat of a household grouping several cabins surrounded by a palisade. Usually, visitors do not enter inside this area without announcing themselves loudly by offering salutations.

the father's activity[6]. However, junior boys are educated early and for long periods. If they prove capable of pursuing their studies, they are supported and become long-term investments. The partents hope that once graduated, they can find a salaried job or develop a profitable activity. This explains that education is the leading cause for male emigration. This behaviour is consistent with the relation that the Peuhl maintain with knowledge and culture. The Peuhl have distinguished themselves for centuries by placing a high value on the acquisition and transmission of knowledge. They are reputed as being erudite. In a way, their heritage, intellectual tradition and *ethos* (defined as the society's value system) also constitute a vector of modernity, as studies oblige the children to learn new knowhow, technical skills, and to travel. The place given to studies socially leads to the development of new and wider economic strategies, as they are without social, religious or territorial constraints.

The Diakanke Model: Groundnuts, Religion and Emigration

Eighty five percent of Guineans are Moslems (DHS 2000: 30, Table 2.12). The Diakanke were Islamised early on and, with the Peuhl, they contributed to the Islamisation of the region. However, Islam influences social life more or less strongly depending on the ethnic group. In particular it is a stronger structural element in Diankanke society than in that of the Peuhl, as it determines the relations of dependence between individuals and submission within families. In Diakanke society, the masters of the Koranic schools, or karamoko[7], are greatly esteemed. The karamoko is systematically declared head of the household by virtue of his prestigious religious function. This prestige is also synonymous with power since these religious leaders effectively take all the important decisions (marriage, education, emigration) for all the members of their family. In addition to teaching the Koran, they are also known as healers. They provide treatments for high fees, using amulets and verses from the Koran. The most renowned traditional healers demand very high fees, reaching from GF 200,000 to as much as GF 500,000[8], payable at the end of the treatment.

The Diakanke have the largest family structures of the ethnic groups studied. On average, 26 people fall under the authority of the head of the household. There are three reasons for this figure. First, the karamoko gathers several family units under his authority[9]. Second, the majority of Diakanke men are polygamous (53% of married men). Lastly, the families of the grand karamoko receive entrusted children, 1.2 on average per household, come to receive religious education. This figure, though lower than that for the Soussou (1.8), masks a more complex reality. It is an average

[6] Here, we speak of boys, since whatever the case, girls receive little education due to their specific status in the family.

[7] Karamoko is a Peuhl word meaning school master.

[8] To give an order of magnitude, at the time of the survey, a 50 kg sack of rice, i.e; the weekly food required for a household of twenty people, was sold for 25,000 Guinean francs.

[9] We call a unit a group composed of a man, his wife or wives, and his children.

and, like any average, it attenuates the *extremum*. Few Diakanke families receive entrusted children, but the families of the grand Karamoko receive many and for long periods, with the pupils remaining several years. Some arrive very young as the Koran is sometimes taught before they start school, that is to say before seven years old. The karamoko receives money from the pupils' families and from his former pupils, who, once adults, continue to send him money regularly. This economic activity built around the competence of religious teacher and healer has led to the enrichment of Diakanke households. It is noteworthy that, paradoxically, religion, although it is a factor of control and social closure (self-sufficiency of the group, inferior status of women), is an economic activity that generates income permitting the change from a traditional economy to a more open one, by way of an economy driven by religion (Copans 1989).

Indeed, the money obtained from school and treatment fees has been invested in international emigration. Nearly 6% of Diakanke men are migrants. Every household counts an average of four migrants versus three for the other ethnic groups. Although the difference in absolute number appears small, it in fact covers two distinct realities. Thirty five percent of Diakanke migrants are men who have emigrated to Europe, versus only 5% for the Nalu. These emigrants earn their income in euros, which considerably increases the value of the transfer to the family and the possibilités for redistribution. The migrants regularly send money to their household and, because of the devaluation of the Guinean franc, and notwithstanding inflation, the households that receive the money in euros are economically better off. Therefore, while still having fewer activities than those of the other ethnic groups (1.5 for both men and women), the standard of living of Diakanke households is higher than the other households. This is apparent in particular regarding the level of their habitat and equipment. The economic organisation of the Diakanke thus provides substantial financial gains for the households.

In addition to the activities mentioned above, indivuals cultivate groundnuts. 64.4% of men and 28.6% of women consider groundnut cultivation as their main activity. Part of the harvest is consumed in the household, though it is mainly stored for sale at the most propitious moment to optimise the profit obtained. It is the owner of field who will derive a personal income from selling this cash crop. Groundnuts therefore provide personal incomes to both the men and women of Diakanke housholds.

Whereas for the other ethnic groups, the diversification of activities is conceived at indivudal level, this is done more at the household level for the Diakanke. This therefore obeys a family economic rationale and the individuals of the household are not independent of the head of the family who receives money from abroad and fulfils a religious role. The members of the household enjoy little financial autonomy; from the economic standpoint they are dependent on the redistribution process, and from the social and religious standpoint they come under the authority of the head of the household. For example, neither Diakanke men nor women save much. The Diakanke women are alone in not participating in the tontines[10]. This is

[10]A tontine is a common fund to which the members of a community subscribe. Financial support using the money gathered is given to members in need.

undoubtedly explained by the fact that they have few activities and thus little income. But this is also due to the weight of the social and religious control wielded over women in Diakanke families. The woman is subjected to parental and then marital authority. It is also in the Diankanke ethnic group that one meets the lowest number of women heads of family (4.1% versus 23.1% in Soussou families). Her main role role is that of mother. She is hardly ever involved in the household's economic life. It should also be emphasised that the non participation of Diakanke women in economic life strengthens the prestige of the men. When a woman does not work, it means that her husband or his family – since this is a situation of virilocality – has enough income to ensure the subsistance of the household.

From the geographical angle, the Diakanke live in a village closed in on themselves. Social and religious control is constantly reasserted by the construction of community schools and the creation of a Diakanke language radio station. The power of the social control exterted also slows down children's education, as the parents fear that public and secular schools favour calling traditional authority into question. Furthermore, lack of eduction is not perceived as a factor impeding the international emigration of unqualified labour which relies on already established networks. Generally, the social organisation of the Diakanke leaves little place for the individual and thus runs counter to the Peuhl model structured more according to individualistic rationales and the criterion of qualification.

Nalu, Baga, Landouma: The Rice Society

Ricegrowing has largely contributed to defining the social functioning and values of the ethnic group comprising the Baga, Nalu and Landouma. Contrary to other African regions, particularly Senegal, rice was not introduced into Maritime Guinea by colonisation. In his book V*oyage à Tombouctou*, published in 1827, René Caillé already observed that the main crop cultivated by the Baga was rice.

Rice is grown in the mangrove or plain regions depending on the type of land available. Cultivation in the mangrove areas demands the development of rice fields (building dikes, desalinising the land), which involves mastering irrigation techniques. Acknowledged for its gustatory and nutritional qualities, the populations prefer mangrove rice to plateau rice. This type of crop can provide several harvests in the same year, though this does not belong to the practices of the population which cultivates it only during the rainy season. Ricegrowing on the plateau is practiced in the villages and is rain fed, thus advantage is taken of the rainy season to irrigate the land. The more fertile lands – mangrove swamps or cleared plots on the plateau – belong to the oldest families. They do not always cultivate these lands, sometimes through want of labour. But they neither give nor lend them, in the hope that the family may exploit them one day. Whatever method of cultivation used, it is always extensive and makes no use of inputs since the households lack the means to

purchase fertilisers and machines. Ricegrowing therefore requires the mobilisation of all the labour available in the household or the community.

Nalu, Baga and Landouma households are large. They comprise on average 2.2 units per household versus 1.9 for the Soussou and the Peuhl. 40% of households are composed of more than 20 people. On becoming adult, one or more sons remain with the father to cultivate the family's land. The others either establish a new household in the village, or migrate to the towns (85.8% of migrants) or nearby villages (14.2% of migrants). What is more, the majority of the men are polygamous (53% of married men), which also satisfies the need for labour since the women help the men work the fields. Marriages in this ethnic group are endogamous. Only 27% of men marry women with whom they have no family relationship (versus about 40% for the other ethnic groups). However, the men of this group appear to be freer to choose their first wife than in the other ethnic groups studied (30% chose their first wife themselves, versus 16% for the Soussou). This apparent contradiction could be explained by geographical reasons. The Nalu territory stretches over the islands and peninsulars of the sub-Prefecture of Kanfarande. Although people circulate between the different villages, a certain geographical endogamy exists. This geographical proximity may explain that the majority of Nalu families in a given territory have family relations. Thus even if the man appears to be free to choose his wife, a man who takes a wife in a limited geographical area necessarily marries a women related to him.

The Nalu households live in dire economic insecurity. Since their subsistance and incomes mainly stem from ricegrowing, they are vulnerable to climatic variations, depredations caused by animals (monkeys, birds, cattle), despite the surveillance of their children, and the wear of the dikes. Indeed, the mangrove lands are difficult to exploit as they require the contruction of dikes that must be contantly maintained. In these circumstances, breaches in the dikes are not rare, resulting in the entry of salt water that "spoils" the rice. The harvests are therefore random and a poor harvest is sufficient for a family to enter into a cycle of debt difficult to break. When the lean season arrives, if the previous harvest was insufficient, the Nalu, Baga and Landouma borrow sacks of rice from the Peuhl userers to feed themselves. It is noteworthy that these loans concern only food, the households leaving intact the rice left in the store kept for the next sowing. For one sack of rice borrowed, they must render two from the following harvest. Thus the Peuhl quickly find themselves in control of stocks of rice that they can consume, store and sell at the best price, which rapidly increases their wealth. The ricegrowers can also choose to borrow money from the Peuhl who apply usurious interest rates of about 100%. In the absence of rural credit, the ricegrowers have no other choice than to turn to the Peuhl, thereby entering into a cycle of impoverishment.

These ethnic groups are still much part of a subsistence economy, thus they are in a situation of economic precarity that does not affect the other groups studied. Confronted by Islamisation, the Nalu, Baga and Landouma have sought refuge in isolated areas that they have appropriated, dominated and where they have developed a single activity (ricegrowing) which has had a profound effect on the way their culture is structured. In a certain way, they have cut themselves off from local and

national economic changes. Controlling the land is now no longer a guarantee of economic stability and food security, quite the contrary. They are obliged to develop additional activities to satisfy their monetary needs, though these activities nonetheless remain relatively unprofitable. For the men, this mainly involves groundnut cultivation (14.1 %) or fishing (17.4 %) while the women set up small scale commercial activities (33.3%). These individuals sell their production in both cases: either raw for the men, or processed (oil, smoked fish) for the women. This procures a meagre cash income for the households that allows them to only partially satisfy their food needs, apart from rice, and their expenses on health and education.

The net proportions of Nalu, Baga and Landouma children attending school are close to those of the Soussou, 44.1% for primary education and 13.2% for secondary education. But these figures mask a more complex reality. First, children attend school late, rarely starting at the compulsory age (7 years old). The children enrolled in classes follow their instruction irregularly. They only attend classes when their parents do not require their help in the house. Thus many children receive no education when the time comes to work in the fields.

In Victoria, as in the whole of Guinea, the presence of administrations leads the population to be more inclined to educate its children. Ethnicity is the underlying factor, with the Soussou holding administrative jobs in Victoria, hence a higher net rate of education. In the other villages, education is more subject to a certain type of social conformism than to awareness of a real need. Furthermore, at Koukouba, a village where 66% of the population belongs to this ethnic group, the President of the district has sometimes obliged the parents to enroll their children at school. These children thus attend several classes, though they rarely continue their studies. Indeed, their families cannot see the advantage of educating their children, thus of spending money, as their main activity, ricegrowing, does not require learning what is taught at school. Traditionally, education is done through fostering. The children are entrusted to their namesakes by whom they will be educated. The namesake is generally a relative, a brother or sister, or uncle or aunt of the father or mother, but they can also be someone outside the family though nonetheless close to it. Fostering is intended to socialise the children as it is thought that they may become capricious if they stay too long with their mothers. More often than not, the child is entrusted immediately weaning begins. Fostering thus does not participate in increasing the average number of individuals in a household since the children “circulate” from one household to another.

Ethnic Habitus and Cultural Determinism

The ethnological approach permits awareness of the meaning and rationales that actors give to their behaviours, and going beyond the demographic or sociological measures when seeking explanatory factors. Consequently, we consider that ethnology raises more questions than demography, even though the latter is indispensable for building responses. The observation of the four ethnic socioeconomic systems described

previously returns us to the question of the sense of the causality between rationalities and economic facts, demographic behaviours, and cultural belonging (Godard 2010). Following on from Godelier (1966, 1996) and Cordell and Gregory (1994: 23–32), we tend to think, when examining the facts, that the economic and the demographic are to a great extent embedded in the cultural (values and ideologies), and that this determines the actors' margins of action and evolution. Culture also mediates the appropriation of the environment (Descola 1981; Descola and Palsson 1996).

We observed that the nature of economic activities and social organisation are strongly intertwined and that they imply references to a specific model: the importance given to the nuclear family and individualism for the Peuhl; strong family and community solidarity for the Diakanke and the Nalu-Baga-Landouma. These models are however not simply juxtaposed in Guinean society taken as a whole. They complete each other with respect to the activities and knowhow developed and the produce and products sold. Complementarity sometimes evolves towards a situation of dependence when the economic situation worsens. This is the case that has gradually set in between the Peuhl and the Nalu-Baga-Landouma. Competitors regarding the appropriation of space, they have become economically interdependent. The ricegrowing peoples have been obliged during the lean season to opt for the usury practiced by the Peuhl, who find themselves in a position to lend money due to their commercial activities. The ricegrowers fail to develop activities not related to the production or sale of agricultural products. Thus there is little diversity in their economic activities which generate only low monetary incomes. More than any other ethnic group, the natural and social environment pushes the ricegrowers to indebt themselves to the Peuhl. The consequences of this situation generate two cycles: that of enrichment for the Peuhl and that of impoverishment for the Nalu. These two cycles fuel each other. Thus the ethnic dimension is primordial when analysing responses to poverty since it shows that each ethnic group develops an economic niche allowing it to cope with the change from a self-subsistence economy to a market economy, both economically and sociodemographically, by adjusting its behaviours in specific ways.

Nonetheless, underlining ethnic specificities should not hide the fact that intra-ethnic differences exist: not all the Peuhl are large livestock breeders or traders; not all the Diakanke are grand karamakos. A cross-disciplinary analysis of income levels and social classes should complete the approach developed by us to avoid falling into absolute cultural determinism. The notion of *habitus* defined by Bourdieu (1970, 1980) as a "set of inculcated arrangements interiorised by individuals such that they tend to reproduce them by adapting them to the conditions in which they act" can lead to solving the false dichotomy between the individual and the social, and also to linking the constraints and margins of change available to each individual in the context in which they live. The latter must be analysed as a group of constraints in relation to the ecological environment, to social relations and thus power relations, to economic opportunities, and to the cultural heritage of which it is the driving force.

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Chapter 5
Education Confronted by Rural Poverty

Alhassane Balde

Agriculture in Guinea

In spite of Guinea's rapid urban growth (5.8% between 1990 and 1995), 68% of the population is rural (Bocquier and Traoré 2000) with agriculture being their main activity. Due to the extensive and traditional agriculture practiced, and the low sums of money generated, Guinean agriculture is mainly oriented towards family subsistence with the main objective of ensuring food security. Multiple activities that ensure additional though modest incomes throughout the year have increased in localities in which the development of other types of activity is possible, such as artisanal mining in mining areas, the extraction of salt in coastal regions, and the sale of farm produce in peri-urban villages.

Agriculture remains the main activity in Kanfarandé, the area studied. It is practiced by 68.6% of the men and 60.1% of the women (Table 5.1). However, it essentially concerns the cultivation of rice and groundnuts, crops whose exploitation requires the mobilisation of a large number of persons and the optimal use of available labour. The organisation of labour within the family therefore entails the gender and generational distribution of tasks, meaning that all the members of the family are rarely called on to perform the same activity (Sandron & Gastineau 2002). In Kanfarandé as in the rest of the rural areas of Guinea, the participation of the largest number of people in the economic activities of the household is "imperative" to satisfy the food and financial needs[1] of its members. They can participate in

[1] The money must ensure the payment for the services and other primary needs of the members of the family (health, clothing, education).

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Table 5.1 Main activity declared by men and women

Activity	Men	Women
Rice growing	40.3	36.4
Groundnuts	24.3	22.0
Other crop	4.0	1.5
Artisanal	2.3	8.0
Commerce	5.6	22.0
Other	23.5	10.1
Total	100	100
(N)	375	327

Source: Balde (2009)

four ways: by domestic work (for example, the work done by a child in the family circle: looking after the youngest, carrying water for domestic use, washing clothes and other fabrics), by non-domestic family work (participation in farm activities, salt farming, mining, petty trading), by earning a wage (services for payment in cash or in kind[2]) that is used to maintain the household and, lastly, by learning a trade for which the income generated by the child is wholly destined for their teacher.

Child labour takes several forms and the age at which active life starts depends on several factors: the conception of the work done by children by the societies themselves, the economic capacities of the household, the economic and ecological contexts of the localities and the child's degree of physical maturity. In addition, the organisation of farm labour involves sociocultural dimensions that structure how rural inhabitants function: agricultural practices are based on a gender system, social networks, intergenerational relations, and gerontocratic management.

Despite the predominant place occupied by children in the domestic economy, particularly in agricultural activities, some households succeed in educating them despite the fact that farming is the main activity practiced by the population of the sub-prefecture, and that it demands considerable human resources to work the fields, a task that occupies a large portion of the year. Consequently, this chapter proposes to assess the relation between education and the participation of children in farm activities in a context where the agricultural and school calendars overlap, by focusing in particular on the social organisation of the production system within households.

The quantitative data were collected using two instruments. A census form was first administered to 364 households to measure the size of the population, establish its structure by age and gender, identify family structures and link them with the information collected on the level of education of the population (Chernichovsky 1985; Marcoux 1994). It was completed by a series of questions on the respondents' housing conditions, the number of fields in the farm and those farmed directly by the head of the household.

There are also two types of qualitative data. The first were collected and recorded on the sheet describing the village: its social, economic and cultural situation, an

[2] This implies either food or manufactured articles.

inventory of available resources (infrastructures, goods and amenities), information on health and education in the locality. These data help understanding the needs of the community and the constraints to which it is subject. The second type of qualitative data were obtained from interviews held with privileged informers chosen by taking into account their social role (notables, political and religious leaders) or their specific competences (health post personnel, traditional healers, teachers, schoolmaster, development actors), and from inhabitants chosen from the overall population according to the depth of analysis performed. For example, parents with at least one child at school at the time of the survey were chosen in order to analyse their perceptions and motivations in relation to the children's education. The objective was to contextualise the quantitative data as well as possible and highlights the underlying rationales of the actors concerned.

The Organisation of Farm Labour: A Mirror of Social Organisation

Preparing the Fields is the Work of the Young and Adult Men

Identifying and Choosing Fields for Cultivation

The cultivation season begins in earnest around March. However, two months beforehand – after the village heads have designated the cultivatable areas – the men seek and mark out the plots that will serve as fields in the plateau areas. They speak of "good land", also called "virgin land". These are the lands that have not yet been slashed and burnt or which have remained fallow for several years. They have the advantage of containing large quantities of humus (nutritive elements) that plants require to ensure healthy growth. This race for good land starts earlier due to the scarcity of fertile land and the lack of fertilisers whose use would enrich poor quality land. The plots are occupied by a few swings of an axe or machete to mark out the boundaries of the future field. This traditional rule of land use holds for both the indigenous population and for persons having acquired this quality through alliance. For the other residents of the village it requires a free loan or, in the case of non-residents, the payment of a tax in cash or in kind to the head of the village. In Kibanco, the tax amounts to Gf25,000[3] whatever the surface area of the field. A non-resident is introduced to the local authorities by his tutor who, according to his affinities with the authorities, can lower the tax to GF10,000 or negotiate a payment in kind after the harvest. Part of the harvest is therefore handed over to the head of the village in payment of the tax. Although little employed, fertilisers are spread on arable soil by a small part of the population, the Fulani of the village Koukouba. Traditionally livestock breeders become traders, the Fulani are farmers of circumstance. They cultivate small plots of land fairly close to their homes. During

[3] 1 euro = 9400 Guinean francs on the date of the survey (2003).

the dry season, their cattle stay the night in the compound reserved for crops, which permits fattening the cattle and lessening the Fulani's dependence on the Nalu, the original occupants of the land, from whom they must borrow every time they need new land. The advantage of this is twofold: on the one hand they keep their cattle in safe places, while on the other they can collect the cow dung, reputed to be a good fertiliser.

Clearing, Labour and Weeding

Work to exploit the field starts in March with clearing, which consists in cutting the trees, lianas and grass. This stage of the work, the most difficult, is done by the men. It can last several weeks. The bared field is left to rest to allow the plants that have been cut to dry before being burned. To stop the fire from spreading, the peasants are helped by other men from the village who encircle the field at its boundaries to circumscribe the flames. Once this step has finished, the households wait for the first rains to fall at the end of April to start their labour. Contrary to the first step which is a wholly male affair, the second step involves the youngest members of the family and their mothers. Nonetheless, the latter start working in the true sense during seeding, though intermittently. Not long after this step, both girls and boys participate in almost all the activities that take place in the field[4] from the age of eight years old and they spend more time there than the adults. Seeding starts at the end of May and ends in June if the peasants want to stick to the agricultural calendar and thus hope for a good harvest. During this period, all the inhabitants of the village leave for the field at eight o'clock in the morning while the first people to return home arrive at about five o'clock in the afternoon.

To satisfy the imperatives of time, households can call on their family labour force as well as call for aid outside the family. The head of the household therefore activates his social networks. Permanent and temporary mutual aid groups (*kilé*) are contacted. Composed of friends or members of the wider family circle, these social entities play a primordial role in the organisation of the different activities planned. The tasks are performed indifferently of gender or age. In this case, the indisputable authority of the patriarch over the organisation of family labour is overridden. He contents himself with encouraging his guests (*walikè*), never talking to anyone but the leader of the mutual aid group, the only person authorised to organise the distribution of tasks. What counts is to perform the works of this crucial phase of the agricultural calendar as soon as possible. Little is asked of the children up to the end of this phase and the adults are relatively undemanding regarding their participation in the work. However, their aid is called on occasionally when deemed necessary.

[4] We will not dwell on the mutual aid practiced in for certain activities in the fields since they have little or no relation to the tasks given to the children. Thus it does not infringe on the children's free time.

Women and Children: Surveillance and Weeding

For the children, the end of sowing signals the beginning of long days of labour in the fields. Once the sowing has stopped, they must return every day very early in the morning to the fields that have been sown and remain there until nightfall to prevent birds from eating the seeds. Nonetheless, the organisation of surveillance depends on the number of fields to be watched, their surface area and the demographic composition of the household. The children and the women of the household may all be required at the same time or, when possible, to relay each other in turn to watch over the fields. They return every day until the seeds start sprouting and the plants start growing. This phase of the work lasts until July. These three months exactly overlap the period of the courses of the third term which ends with an examination in mid-June. This is immediately followed by the end of year exam marking the termination of the school calendar.

Once the plants are no longer vulnerable to the birds, at least during this stage of their growth, they must be protected against other predators such as agoutis[5] and monkeys. It is during this period of the year that the first works are performed to maintain the fields and all the members of the family are called on to "eliminate the weeds" that prevent the plants from growing properly. The fields are weeded twice a year during the agricultural season. This activity is compulsory for the women and children whereas it is optional for the men. This is followed by a period of intensive surveillance of the fields. The grasses[6] whose heads have grown and the fields of groundnuts are coveted by birds, rodents and primates. The children watch by day, while the men take over in the evening. Although widespread, laying traps remains an inefficient form of protection and cannot replace the presence of humans. In reality, the traps fulfil a totally different function, that of providing animal protein to households. In this case, the fields serve as bait. This period of the agricultural calendar is crucial for the head of the household since it represents the guarantee of food reserves and part of the household's expenses for the twelve following months. However, in Guinea this period coincides exactly with the official start of the school year in October.

[5] Agoutis are small rodents the size of a hare that live in Africa. They eat the rice stems, which they cut with their teeth. The peasants consider them to be their "worst enemies" because they attack the fields just at the moment when it is impossible to re-sow them. The peasants say that agoutis can destroy a whole field in only one night.

[6] A family of monocotyledonous plants whose stems produce stubble (rice, fonio, millet, etc.).

The Involvement of the Entire Household: Harvesting and Transport

The period when the crops reach maturity depends on the variety of plant and the date they were sown. The first harvests take place in September and concern early varieties of rice and certain root crops (manioc, potatoes). The months of October and November remain periods of intensive harvesting in the sub-prefecture of Kanfarandé. This is evidently the reason why harvesting is the responsibility of the household. The members of the household work as a chain during this period and a missing link can have severe consequences for the harvest.

Here, the internal organisation of labour also depends on the gender composition of the household. Generally, excluding the groundnut harvest in which the whole family, including the children of eight years old and over, participate, this activity is essentially male. Threshing the rice and the separation of the groundnuts from the chaff are done by the adult men whereas the seeds are sorted by the women. However, when the women outnumber the men in the household, some of them join the latter to do the threshing and they can alternate between the two activities depending on the workload to perform. During this period, the children carry out associated tasks. The girls prepare food and offer drinks while the boys help to extract the cereals threshed or to prepare the crops that will be.

The grains are sorted using winnowing baskets that they move rhythmically in the wind by raising and lowering their contents to separate the grains from the chaff. The grains are progressively separated from the chaff which is ejected from the winnowing basket. The cereals are then placed in buckets before being poured into recycled rice sacks of Asian origin. The transport of the harvest to the home continues until the end of December. The imprecision regarding the end of the agricultural season stems from the fact that the harvest is staggered and follows the maturity of the plants. The harvest is transported on the head, by bicycle or by cart. Traditionally, this task is accomplished by the children. But in certain households, both the men and women participate to ensure that the whole of the harvest is transported home more quickly. In parallel, December also coincides with the end of the first term of the school year, when an exam whose marks count for the final result is held. The decision of whether or not the child should move up to a higher class depends on this result.

Contradiction Between a National Policy and Local Realities

Reorganising the School Calendar to Improve Education

The transport of the harvest marks the end of the agricultural calendar. As shown by the gender and generational division of tasks, linked to the age-old and customary tasks befalling each member of the family, children have between 5 and 6 months

Table 5.2 Overlapping of the two calendars and its impact on children's education

Terms	Month	School calendar	Agricultural calendar
1st term	October	Official start of classes	Surveillance of fields, weeding, harvest, transporting harvest
	November	Lessons and exams	
	December		
2nd term	January	Lessons and exams	Period of agricultural inactivity
	February		Slashing and burning
	March		
3rd term	April	Lessons	Labouring
	May	Exams	Sowing
	June		
4th term	July	School holidays	Surveillance
	August		Weeding
	September		

Periods when the calendars overlap and affect education
Source: Balde (2009)

flexibility in the year (December to May) to devote to their studies. Although this period is covered by the school year, it is clearly insufficient to allow a child who participates in agricultural activities to attend school normally, since these occur in the middle of the school year (October to June), which has a total of 9 months (Table 5.2).

The education of children is even more uncertain when the fields are far away. "Virgin lands" are increasingly rare around villages and are rationed. To procure them, the men are obliged to go ever further away. Given the distance separating them from their village, they are often unable to go back and forth from field to home without jeopardising the smooth operation of their agricultural activities, thus they are obliged to settle close to the fields for several long months. The men therefore build a camp on site to accommodate the rest of the family. The definitive return to the village only occurs after six months have passed, with the transport of the harvest to the village marking the end of the agricultural season. The school year is lost for those children attending school. According to the director of a primary school: "*Last year* [2002]*, I lost 15 pupils out of 20 in the fourth year. Around May, they left the village without telling me. It was afterwards that I learned that they had joined their parents in the camps. It's only been a few days since they returned* [December]. *I'm in perpetual conflict with the children's parents who don't want to do without the help of their children. Most of them don't warn me when they need their children's help as I refuse when it means their absence is needed for more than one day*."

Finally, due to the time taken by their agricultural work, the children are only able to sit for one of the three end of term exams, that of the second term. And, given the importance of each exam in the final score, it is necessary to obtain very good results in two exams in order to move on to a higher class, although this progression is often refused due to the disciplinary measures that result from the non-evaluation

of the pupil's last lessons. In this case, repetition is automatic and the chances for the pupil to continue their studies diminish.

Child labour is condemned in particular by the International Labour Office (ILO) and Non-Governmental Organisations (NGOs). In 1989, the United Nations drafted an *International Convention on the Rights of the Child*[7] of which an extract of article 32 stipulates that "The signatory governments recognise the right of the child to be protected against economic exploitation and not to be obliged to perform any work including risks or likely to jeopardise their education or harm their physical, mental, spiritual, moral and social development." Nonetheless, at Kanfarandé and in the other rural areas where economic possibilities are limited due to isolation and where agriculture dominates household life, the participation of the youngest children in household domestic work and agricultural activities is the rule (Kamuzora 1984). This process occurs progressively according to two characteristics: the child's age and their physical development. It is seen as a natural process of social integration. The progressive socialisation of the child is prepared by learning the collective norms of their society, thus they will be take on their future role of father or mother. By assisting the adults to perform their activities from the earliest age, the child learns how to master the techniques used in different areas: the seasonal calendar, the succession of crops, the codes that govern the organisation of work at the micro-level (individual), the meso-level (household) and the macro-level (community). Child labour is not seen as a form of slavery but as a process of socialisation allowing them to profit from the only economic path available. *"*[…] *this "informal" education [is] confounded with the very life and development of the child."* (Vinokur 1994: 81). Therefore it is not possible to broach the question of school without mentioning that of child labour (Schlemmer 1996) as they are intertwined and appear inseparable. If we agree with Fukui (1996) that school activity does not exclude the child from the world of work whereas the world of work can exclude the child from school, then it becomes pertinent in the case of Kanfarandé to ask the question of what place the school and education would take in the village if the school calendar were rearranged according to the agricultural calendar?

This question is especially important since, contrary to what can be expected from the locality in terms of low rates of education, given its poverty, isolation and the primordial position of agriculture, when the survey was performed in 2003, the gross enrolment rate[8] (GER) for primary school (67.3%) was appreciable in comparison to that of all the rural areas which reached 58.8%. In addition, the GER for girls (58.9%) and boys (74.5%), although lower than that obtained at regional level, 66.0% and 77% respectively (MEPU-EC 2003), it expresses the interest that these populations have in educating their children. Far from being a regression, the reduction observed in 2007, 61.1% for girls and 76% for boys (MENRS 2007), expressed an improvement of the indicator. For several years, there had been a general decline in the number of repetitions in the Guinean education system and education involved

[7] This convention was signed by Guinea in 1990.

[8] The gross education rate in primary schools is calculated by the ratio of all the children of a locality enrolled at primary school to the children of this locality of the age required to attend this level.

an increasing number of children old enough to go to school and children entering school at an earlier age.

The assumption that sociocultural brakes are stronger in rural environments than in urban ones cannot be justified regarding the ratio of the inhabitants of the subprefecture of Kanfarandé to the school. Indeed, the difference between the GER of the girls and that of the boys is on average 15% whatever the spatial scale considered (national regional and local). Nonetheless, these figures that account for enrolment at the beginning of the year do not take into account dropping out during the rest of the year. However, as we saw in the field and confirmed by our interviews, there is a high number of school drop outs throughout the year, in particular due to the participation of children in agricultural work.

The seasonal nature of agricultural work and the distribution of tasks between the members of the household entail that the participation of children in these task is intermittent. Consequently, adapting the school calendar would therefore permit educating more children with respect to the notable importance of age in the assessment of education strategies within households. Indeed, the latter is decisive for determining the child's level of involvement in agricultural activities. In these villages, the number of activities in which the child is involved is proportional to their age and size: the older the child, the more tasks there are to perform. Furthermore, the child's educational fate depends on the age at which they go to school. The earlier they are educated, the greater the chance that they will stay at school longer, in turn increasing the chance that they will complete their education, at least at primary level. Completing this level allows them to learn to read and write, competences with many advantages that permit those possessing them to draw greater benefit from the opportunities of daily life (economic activities, improving farm production techniques, posts of decision, claims for individual and community rights, etc.), in sum to improve their conditions of life and existence. Although this is a plea for greater flexibility in the school calendar and in general applies to the rural environment, it should be applied with the utmost rigour by above all taking into account the exigencies of school and the right of children to education that promotes their physical, mental and intellectual fulfilment.

Family Choice and Strategies Regarding Education

We observed that certain families adapted the working calendar to give the child tasks in addition to those on the traditional agenda, that is to say participation in domestic and agricultural work. Henceforth, for these households, the child's education also requires learning the lessons taught at school, as the knowledge learned will be useful to the child in their adult life and they will benefit both directly and indirectly from it. From the identical reproduction of traditional production methods, households will move on to a new form of knowledge production leading to upwards social mobility (Vinokur 1994) through the acquisition of the social capital provided by schools.

Nonetheless, the economic and demographic context of households drives them to take into account the direct and indirect costs of education, which are high (Pilon et al. 2001). Therefore only some of their children will have the privilege of being educated. It is precisely at this level that calculations are made on the choice of child to be educated. The field interviews led to the identification of five education strategies:

- keeping the oldest children at home to participate in family production and the education of the youngest with a view to the long term;
- educating the child [generally a boy] deemed the most intelligent in the family;
- the temporary education of children [boys and girls] of low age to ensure their literacy since the template for success points elsewhere;
- educating all the boys [if there are not too many of them] but not the girls, as they are destined for marriage;
- educating all the children. This solution is rarer and is found in households holding an administrative post.

The refusal to educate all the children can also be explained by the desire of the parents to diversify the "professional" orientation of their progeny (Vinokur 1993). With the crisis of employment in the civil service and the under-development of the private sector, this strategy allows parents to diversify their own sources of income. Indeed, when old they are assumed to be taken in charge by their children. The fact that learning a skill, for example, can be done outside school or that petty trading requires almost no specific skill facilitates this practice. A young woman of the district of Kibanco and mother of three children, her eldest boy of 7 years old, a second of 4 years old and a little girl of 8 months, explained to us: *"My first boy was educated by his uncle who wanted him to become a school teacher, a desire I shared wholeheartedly. As for the second, when he is 6 years old, I have chosen to give him*[9] *to a very famous Koranic master who lives in a village a few kilometres from here and from whom he will learn the Koran and become, I hope, an Imam. My girl will stay with me and help me with the housework and pretty trade, above all producing salt."* The parents therefore appear to be rational actors who measure the costs and benefits of their choices. "Several studies have in particular revealed the diversity of the "choices" made by the parents: not all of them educate their children in the same way; their behaviours differ according to the number and gender of their children. Neither do all of them opt for the same sectors of education. […] The parents therefore choose differently as a function of the sectors of education available" (Gérard 1999: 155).

[9] Meaning that the child will live with his Koranic master for as long as his education lasts. A priori, his parents cannot count on his help in any activity.

Giving More Responsibilities to Grassroots Partners

A decentralisation policy that grants local structures with competences enabling them to take decisions on the content taught, the recruitment of teachers and supervisors and the organisation of the school calendar would certainly improve quality indicators. Policies at the national level matter little; the goals sought can be achieved if communities are closely associated with the other actors of the education system in decision-making. "Despite their extreme poverty, the populations living in rural areas are ready to make sacrifices to develop the education system, and their contributions must be taken into account at the level of the system" (Midling et al. 2006: 55).

In many cases, we saw community organisations[10] involve themselves in mobilising resources to build schools, recruit teachers, provide a decent salary and better living conditions to their teaching staff than in urban areas. Through their actions, these associations contribute towards improving access by stimulating social demand for education by developing supply and participation in awareness campaigns in favour of education. At Kanfarandé, outside the main town of the subprefecture, the primary schools are all the work of the communities that build or enlarge their schools in a climate of emulation. In the district of Kibanco, the teacher was recruited and his salary paid by the community for several years before being taken in charge by the public authorities. In the sector of Madina, in the district of Koukouba, the villagers continue to pay the salary of the teacher to give classes in their two classrooms.

It is noteworthy that there are as many Students' Parents and Friends of School Associations (APEAE) as schools and as many Rural Development Communities (CRD) as sub-prefectures. It is even more important to rely on these local structures if they are managed by elected individuals capable of achieving a certain level of consensus. One of the advantages of this proximity is the ease with which messages of awareness circulate. This is how national campaigns in favour or educating young girls were able to obtain estimable results. An education system that takes into account local specificities and constraints through strong reliance on local authorities is the key to improving education.

Conclusion

The geographical location of these villages, characterised by considerable isolation, has contributed to creating and maintaining an almost autarchic situation (Ministère du plan/Direction Nationale de la Statistique & POPINTER 2003). Trade with the exterior is rare and hardly developed in the village. Since money is not often used in

[10] Rural Development Communities (CRD) and Students' Parents and Friends of School Association (APEAE)

trade, the basis for exchanging goods is barter. Direct trade, loans and exchanges of services are generally done using this system which asserts the importance of local resources, especially those obtained from farming, the main occupation of the populations living in these localities. They not only serve to feed the household but also to satisfy the other essential needs of its members.

Just like a good harvest, success at school requires conforming to the pertinent calendar of activities. However, despite the fact that they start on slightly different dates, the school and agricultural calendars have the same duration over the year (9 months). In the localities of Kanfarandé, Kibanco, Koukouba and Lansanaya, the main activity of the population is agriculture (Godard 2007). However, it requires calling on considerable human resources. The larger the field and the more the crops are diversified, the greater the number of people necessary. In this context, the participation of children in the family's agricultural and domestic activities is an important asset for a household in its quest for food security. This is especially the case because the lean season[11] returns cyclically and the fear of this period lives on vividly in the memory of the region's inhabitants, as it has severe repercussions on future harvests. Children's education and keeping them at school are therefore strongly linked to the household's financial independence and labour (Warren 2000), which allow it to protect itself from food needs and pay for health, clothing and education, for example.

The pressure exerted by the inactive population on the rare resources available, combined with the economic conditions of the households and social pressure, oblige it to work, early in the case of the young, and late in the case of the old. In this context, the presence in the household of a large number of people able to participate in agricultural activities is a considerable advantage for satisfying the household's labour requirements, as their investment in the family production unit ensures that the family is self-sufficient.

The simultaneous participation of the child in family production and in school, suggests that families must find a compromise between the need to feed themselves and the constraints of education that demand from the family that the child attends school for nine months and succeeds their learning exams in order to move on to a higher class. Finally, both calendars overlap at a time of the year when the child's presence is essential for the success of one or the other activity, raising the problem of poor adaptation between the supply of education and demand from the standpoint of availability and time.

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[11] This corresponds to the time of the year (July – October) when food stocks, mainly cereals (rice, fonio and millet), are at their lowest. To satisfy the family's food needs, the peasants have to borrow cereals or money to purchase them.

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Chapter 6
The Motors of Change in Seismic Risk Management Policy in Turkey: The Multidimensional Nature of Response

Nazan Cömert-Baechler

Introduction

The Marmara earthquakes that occurred in 1999 marked a turning point in public crisis management policies in Turkey in several ways. Firstly, the magnitude of the devastation triggered collective awareness about the state of the country's vulnerability to this type of risk. Secondly, it was the first time that Turkish civil society had mobilised itself so strongly in such circumstances, as it was involved in post-disaster management and in the critical debate on the State's capacity relating to governance. Lastly, with the hindsight that we now have fifteen years afterwards, we can consider that they contributed to the emergence of new risk management tools susceptible to reduce vulnerability to seismic risk in Turkey.

This vulnerability is located at the confluence of a situation of physical exposure to natural risk, an institutional configuration that influences management capacity in the case of the occurrence of this risk, and individual behaviours liable to strengthen or weaken it. Studying the links between these three parameters should lead to understanding the results of earthquakes such as those of Marmara, and also the conditions under which a future earthquake (predicted for Istanbul) could occur. From this perspective, disasters such as earthquakes are seen more as social catastrophes than natural ones, since their consequences are to a large extent the result of social construction, in that the capacity to respond is influenced by the social context in which a disaster occurs.

In this chapter we focus in particular on the evolution of this social context following the Marmara earthquakes. The aim is to understand how they affected the three parameters identified above: collective awareness of a state of vulnerability,

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the mobilisation of civil society, and the emergence of new risk management tools. Thus in the first part we will see that the Marmara earthquakes were both a major crisis and a catalyser for change. The second part will draw the conclusion that the post-earthquake period was unfavourable to this change, due to both the failure of the government's crisis management and to individuals' misconception of risk. The third part will show that a multidimensional change is in progress in the longer term, and that it implies evolutions in the legislation on land use, in the political-economic environment and in the system of individual incentives to take earthquake risk into account in urban habitat management.

Crisis and Perspectives of Change: The Marmara Earthquakes and Turkey's Vulnerability to the Risk of Natural Disaster

The Concept of Crisis and Crisis Strategy: Disruption and Perspective

Whatever the nature of the catalyser, all crises underline the malfunctioning and fragility of a structure that were not necessarily visible beforehand. Thus a crisis reveals what must change to avoid its reoccurrence. All crises result from a complex process that contributes to the progressive accumulation of its constitutive components, which can be identified as a combination of a pre-existing state of vulnerability and disruption. Consequently, its form, duration and impacts are often independent of the nature of the threat itself, and go far beyond the catalysing event, which in our case takes the form of two successive earthquakes in the region of Marmara in Turkey.

Furthermore, a crisis occurs in a specific political and economic context that both determines the conditions of the occurrence of the disruption and influences the way in which it develops subsequently. This second characteristic obliges the observer to consider the evolutive dimension of any crisis, which should be understood as both the process of managing the crisis situation itself and as the way in which the actors involved grasp the event to develop solutions liable to reduce future vulnerability to the same type of risk.

These characteristic elements of a crisis can be found in both the etymology of the term and its definition. Crisis is derived from the ancient Greek word *krisis* or *krinein* which means "assault, separate, distinguish, pull, decide, make a choice" (Crocq et al. 2009). As for the definition, it refers to an event that occurs suddenly, that threatens existence and values, which causes damage, which disrupts a routine, which provokes a feeling of loss of control of a situation, and which implies the participation of many actors identified beforehand or not.

The definition of a crisis therefore evokes the idea of a disruption triggered by the strength of a threat that has materialised, since "nothing will be the same as before".

To this must be added the notion of the perspective and change required to adapt to the new situation. From this angle crises are essential for driving the actors involved to make the adjustments required to reduce their vulnerability. But these adjustments do not occur automatically. Changing a negative situation caused by a crisis into an opportunity depends on the capacity to analyse the situation of crisis, develop a strategy and implement a system of response that resists the effects of potential crises more effectively. Thus each experience of crisis is a learning process signalling a level of awareness. A crisis strategy must also be conceived as a will to learn from the lessons meted out by a negative event to improve one's future situation.

The problem of conceiving a crisis management strategy can be subdivided into two distinct sub-problems. On the one hand there is the need to take decisions under the pressure of emergency in such a way as to solve the immediate problems and prevent the situation from worsening. On the other, it is necessary to anticipate the possible impacts and consequences of these decisions in the longer term, so as to reach the fundamental objective of reducing vulnerability to the same type of risk. It is therefore crucial that a risk management strategy relies on prior understanding of the potential long-term impacts of the decisions taken in the post-earthquake period.

Hence drawing lessons from events experienced is integral to the process of preparing for crisis management. That is why the processes under study here fall within the theory of change, understood as the link between a change resulting from a constraint ("we change because there is no other choice") and the change resulting from the strategies deployed by the actors involved ("it is the interactions between the actors that explain the change") (Muller 2005). In the case that concerns us, the distinction between the two modes of change nonetheless proves to be complicated by the fact that crisis management is based on both a reaction to a constraint caused by the impact of the earthquakes, and on the strategic decisions taken to reduce vulnerability to this type of crisis in the long-term. For the sake of clarity, it is however pertinent to break down the analysis and distinguish that which belongs to a reactive response or to a proactive response to the Marmara earthquakes. We start by identifying the elements explaining the impacts of these earthquakes and the constraints brought about by the meagre capacity of response and the vulnerability of Turkish society confronted by such events.

Vulnerability to Disasters in Turkey: The Marmara Earthquakes

Human vulnerability means all the conditions or processes resulting from material, social, economic and environmental factors aggravating the sensitivity of a community to the impact of hazards (PNUD 2004) On the one hand this definition covers a state of fragility, while on the other the difficulties of responding to external aggressions and shocks, and the capacity to change the negative consequences of an event. As for resilience, it is the capacity of a system or society to resist and to change in such a way as to achieve an acceptable level of functioning. It comprises

"the capacity to organise and increase possibilities of learning and adaptation, including capacities to recover from the consequences of a disaster" (ISDR 2005). Thus vulnerability does not depend only on the state of fragility of a system revealed by the physical impacts of an event such as an earthquake. It also evokes the capacity of resilience that relies on anticipation of the consequences of a negative event, in this case an earthquake, on reaction when it occurs and on the capacity to recover from its impacts.

Turkey is a good illustration of a zone vulnerable to seismic risk. The statistics show that on average an earthquake causing destruction occurs every seven months (Özmen 2000). 98% of Turkish territory lies in a seismic region, of which 66% is in first and second degrees seismic hazard zones. High seismic hazard zones concern 71% of the population and 73% of industrial installations (Erdik 1999). Very destructive earthquakes are not rare in Turkey, and those of Marmara in 1999 were the latest to have caused massive destruction. Their specific nature can be seen in their results and their economic and sociopolitical consequences, making them particularly interesting for analysing the vulnerability and resilience of Turkey to seismic risk. These two earthquakes occurred in the region of Marmara: the first, on 17th August 1999, was of a magnitude of 7.2 on the Richter scale; the second, on 12 November 1999, was of a magnitude of 7.5. The human and material damage caused was considerable: 18,358 deaths according to official figures; direct costs estimated at $7.5 billion (i.e. 4% of the Turkish Gross Domestic Product in 1999); major destructions in the eight departments of the Marmara region covering an area of 64,000 km^2 and representing 23% of the total population, 34.7% of national GDP and 46.1% of the country's industrial added value (DIE 1999; IUIFMC 2000). It was one of the most destructive earthquakes of the twentieth century in Turkey after that of Erzincan in 1939, and it occurred in the most populated, urbanised and industrialised region of the country. Their amplitude shed light on the accumulated level of risk in a developed urban area and the multidimensional nature of the threat of seismic risk, due to the specific characteristics of risk exposure, the degree of vulnerability of Turkish society and the system set up to respond to this risk.

Generally, the physical vulnerability to seismic risk in Turkey can be explained by shortcomings in territorial development policy, and in particular by the lack of taking seismic risk into account in urban planning management, which had manifested itself in the condition of the housing stock, highly vulnerable to all types of disaster risks. The development and expansion of Turkish towns remains a thorny issue that escapes any attempt at control through urban planning.

There are 19 million buildings in Turkey of which 67% were built without building permits. The state of housing stock is extremely fragile, with 60% of buildings damaged and 40% requiring consolidation[1]. The large cities are particularly concerned due to chaotic and accelerated urbanisation characterised by illegal constructions, a lack of open spaces, shortcomings in infrastructure planning, the intensity of high rise construction, and the multiplication of industrial-residential cohabitation.

[1] Source: http://www.emlakkulisi.com/turkiyede-12-milyon-bina-kacak/184110 [consulted on 2 January 2015].

Thus vulnerability to seismic risk is not only due to deficiencies in earthquake-proof construction. More generally it relies on a phenomenon of urban fragility underpinned by the accumulation of various risk factors[2].

Another particularity of the Marmara earthquakes is that they augured a major earthquake to come in the same region, probably in Istanbul, which is Europe's second most populated city after Moscow, and one of the cities in the world most under threat of the occurrence of an earthquake. The probability of occurrence of a major earthquake (of a magnitude higher than 7 on the Richter scale) in the next thirty years was estimated at 70% for Istanbul following the Marmara earthquakes (thus in 1999), versus 70% for San Francisco and 80% for Tokyo (Hitz et al. 2003; Barka and Er 2002). The cost of a major earthquake in Istanbul has been estimated at $50 billion (ISMEP 2012). Much of these potential costs can be explained by the state of the housing stock of which the illegal share amounts to a total of 70%, and even 90% if account is taken of illegal modifications made to legal constructions (addition of extra floors, extension of internal spaces, etc.) (Balamir 2004).

Thus the Marmara earthquakes not only represent a major disruption due to their exceptional consequences, but they also represent a warning of a similar event that could occur in an even more populated area. Hence they can serve to emphasise the level of individual and institutional awareness of seismic risk following the events of 1999. After having studied the consequences of these earthquakes, we will now focus on how the main actors concerned reacted to this disruption and modified their perception of seismic risk.

Management of the Post-Earthquake Period: The Failures of the State and the Inertia of the Actors

The Marmara earthquakes constitute a major disruption in the seismic history of Turkey due to both their magnitude and the reactions they stirred in the population. These reactions resulted from the impacts of these events and the many flaws in the way the public authorities handled the post-earthquake situation. It can be said that these earthquakes have deeply modified the perception of seismic risk in Turkey, insofar as they are no longer perceived as a fatality or a natural event, but as a risk whose management relies on political will and economic capacity. But this change of perception takes time to set in and influence individual behaviours and the organisation of institutions. In the short term, inertia and numerous resistances to change were somewhat more apparent. Our aim now is to see how the management of the post-earthquake period was addressed by the authorities in charge of the situation and by the population concerned.

[2] On 28 April 1993, the explosion of a pocket of methane in the public rubbish dump of Ümraniye, one of the most rapidly urbanised districts of Istanbul, with a population of 660,000, caused 40 deaths and destroyed 11 houses. On 9 September 2009, 31 people perished in a flood in Istanbul.

Flaws in the Post-earthquake Policy Deployed in the Area Damaged

In the short term, the vulnerability of the damaged area is strongly affected by the post-earthquake management deployed. In the absence of a multifactor approach to the risk, the policy to rebuild the damaged area focused only on building does not necessarily have the desired effects on reducing long-term vulnerability for several reasons. First, the dwellings built rapidly outside the sites affected for those who had lost their homes (often on unstable ground or ground unfit for construction due to the lack of public land and the absence of land use plans) channel urban extension to unstable areas. In these circumstances there is a need to build a large number of buildings within a minimum time at reasonable cost. However, the studies performed (Aysan and Oliver 1987; Lewis 2003; Mileti and Passerini 1996) showed that the emphasis placed on the purely technical dimension of earthquake resistance is not enough to reduce vulnerability in the long-term[3]. Secondly, monetary aid to pay for rebuilding dwellings (part of the aid offered to individuals) immediately after the earthquakes, when individuals were in a situation of precariousness, had perverse effects on their vulnerability, since the reduction of seismic risk was not their priority in this circumstance. Thirdly, the anti-seismic quality of the reinforced buildings in the damaged sites raised concern in the long-term due to the haste in which the works were performed. Lastly, the new earthquake proof dwellings built for those who had lost their homes raised several problems: in the absence of consultation with the project designers and the users of the buildings, the discontent of the latter risked leading to modifications to the living spaces that did not comply with the earthquake resistance regulations (Cömert-Baechler 2008)

These multiple shortcomings in the post-earthquake policy led to increasing long-term vulnerability to seismic risk. In turn this caused a loss of trust in the authorities responsible for implementing the policy.

The Community's Loss of Trust in the Public Authorities

The Marmara earthquakes turned out to be a vector for mobilising the community in Turkey, and thus modified the relationships between the government authorities and the community citizens. This was especially the case as the institutional response to these events led the community to question the legitimacy of government action in these circumstances. As in any crisis situation, the post-earthquake period was characterised by a loss of the community's trust in the public authorities, the government at national level and the elected representatives at local level.

[3] This was the case in particular in the damaged town of Sakarya. Following the Marmara earthquakes, the town developed towards unstable areas where new dwellings were built for the homeless (Akyol and Hayir 2007).

The winners of the municipal elections of 1999 (before the earthquakes) lost the following elections in 2004 throughout the area damaged by the earthquakes. In the case studied here, this loss of trust was linked to the shortcomings of the system intended to provide protection against the impacts of an earthquake, and even more so to the inefficiency of post-earthquake works and the way in which they were perceived by the actors involved. These deficiencies mobilised members of the community who spoke out and took an active role in managing the crisis. It is normal to observe this type of mobilisation following a disaster like an earthquake, but in the case of the Marmara earthquakes, a change from protest to claims for community participation in decision-making was observed. This was the first experience leading to the meeting between government agents and the volunteers and actors of the informal sector, permitting interaction in the field.

The similar meetings were held afterwards in other contexts, of which the most symbolic were the events of Gezi in 2013[4], which relayed claims from the community for greater participation in urban policies. These demonstrations can be considered as a form of reincarnation of the rescue and emergency aid associations founded after the Marmara earthquakes, apart from the fact they agitated to save urban parks. In line with E. Mahcupyan[5], these events can be considered as a "crisis of adolescence of Turkish civil society" more than the genuine emergence of civil society. However, these events were without doubt important in the democratisation process in Turkey. As such, the speed of mobilisation facilitated by the Internet and the heavy mediatisation of the works, notably due to live television broadcasts, played an important role.

Although this was not the first protest to call into question the legitimacy of government authority[6], the particularity of the events of 1999 was that for the first time they signalled the potential of civil society to become a legitimate partner of the State. The loss of trust in government authorities caused by the numerous deficiencies in the post-earthquake policy resulted in an increasing desire by the community to become fully-fledged actor-citizens, despite the fact that the perception of seismic risk by individuals was not radically changed by the Marmara earthquakes.

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[4] The Gezi demonstrations began on 31 May 2013 to claim the right to have a say in the project to redevelop Gezi Park in the heart of Istanbul in Taksim Square. Heavily mediatised and politicised, the movement grew throughout Turkey, calling into question the legitimacy of the political authorities. The Gezi platform led to the emergence of eight forums to protect district parks, and they are still active today.

[5] Source: http://www.zaman.com.tr/etyen-mahcupyan/ergenligin-hazin-siyaseti_20986117.html [consulted on 6th November 2014]

[6] A car accident on 3 November 1996 in Susurluk, a small provincial village, made Turkish public opinion aware of connivance between a well-known Mafia boss, a member of the nationalist party, the councillor for security of Istanbul, and the chief of a Kurdish clan and member of parliament of the Liberal Centralist Party and also member of the coalition government of the time. This revelation of an "embedded State" led to strong mobilisation of public opinion in Turkey, via in particular the movement known as "a minute of obscurity for eternal light", whose protagonists lit candles and placed them in their windows for one minute every night.

Flaws in the Individual Perception of Seismic Risk in the Post-earthquake Period

Despite the magnitude of the Marmara earthquakes and the difficulties of post-earthquake management, it can be seen that experience on the one hand, and the information disseminated by the authorities on the other, did nothing to change individual behaviours at base regarding the perception of seismic risk in Turkey.

Generally, it appears that individuals think that the damage caused by an earthquake can be reduced, but they also think that the measures they could take themselves cannot do much to change the situation, insofar as the protection of individuals against seismic risk falls under the responsibility of the government. Furthermore, it was seen that experience does not always play a decisive role in changing the behaviour of individuals to reduce their exposure to risk. On the contrary, risk can even be seen as something routine (Lagadec 1981). Lastly, some of the information learned by individuals from their own experience can have perverse effects on their vigilance: the fact that devastating earthquakes remain rare on the scale of a human life; the idea that once an earthquake occurs, it will take a long time for another one to occur due to the long cycle of major earthquakes; the idea that if an earthquake does not cause destruction, the buildings can last forever.

In addition, objective information on seismic risk does not necessarily result in preventive action being taken. In other words, being informed about a possible risk does not necessarily result in effective perception of the danger. Perception is a complex notion, assembled from social, psychological, political and cultural factors, thus it cannot be direct (Douglas and Wildavsky 1990). The evaluation of a situation relies on judgement specific to an individual, and which depends on their experience, their manner of informing themselves and how they use this information. Seen from this angle, the fact that the Marmara earthquakes portend a major earthquake in Istanbul with a 70% probability of occurrence does not appear to have changed the community's perception of this risk. Thus there is a difference between the "technical" information received in relation with a specific risk and the way in which this information is perceived. Slovic (1992) puts it otherwise. For him a distinction must be made between the perceived risk and the objective risk, thus the subjective dimension of the perception of a risk makes it a social construction.

Information liable to lead to a change in individual behaviours in terms of risk prevention must in one way or another have an impact on the cost/benefit ratio of the situation in which the individuals find themselves. From this standpoint, taking preventive measures against a risk does not depend only on the perception of danger, it also involves the evaluation of the benefits and costs linked to them. Individual commitment cannot be considered unless there is a perception of a threat and a potential short-term cost. In the case in question, individuals perceive seismic risk as a long-term threat which they find hard to imagine occurring in their daily lives. Thus, following the Marmara earthquakes, the surveys performed on the populations affected (Cömert-Baechler 2008) showed that individuals felt more threatened by risks of war, economic crises and even the rise of Islamist extremism, omnipresent

in the media, than the risk announced of a major earthquake in the Istanbul region, which remains for them a blurred and imperceptible danger. From this angle, efficient communication in terms of impacts on individual behaviour should focus on precise information closely linked to the level of individual vulnerability.

For all that, certain preventive measures are easier to take than others, notably those that do not involve significant additional expense like fixing to walls furniture and objects likely to fall during an earthquake. But these measures are very often insufficient to reduce vulnerability significantly, or they have no lasting effect as people forget them when they move to another home. Besides, the new earthquake-proof dwellings do not comply with this type of measure. However, analysis of the toll inflicted by the Marmara earthquakes confirmed that 50% of injuries and 3% of fatalities resulted from non-structural causes. In other words these causes could have been avoided if the measures regarding internal layouts and furnishing had been complied with[7].

The example of the 1999 earthquakes shows that the experience of a major earthquake is not enough to spur awareness and behaviours in individuals likely to reduce their future vulnerability. To achieve this, the institutional parameter is decisive as it influences the capacities of individuals to respond.

The Many Faceted Evolution of the Capacity of Institutional Response to Seismic Risk

The Evolution of Legislation on Seismic Risk

Studying institutional awareness liable to transform vulnerability into resilience demands hindsight and employing a broader analytical focus than one which covers only the impacts of the earthquakes studied. The analysis here must be based on the parameters of the change in interaction with the economic and political context of Turkey.

During the 15 years that have passed since the Marmara earthquakes, the responses provided by the Turkish government to reduce vulnerability to seismic risk indicate a complex process of structural changes. This complexity stems not only from the nature of seismic risk, which concerns the whole country and many areas of activity, but above all from the political dynamics of the adjustments made as they affect the efficiency of the measures considered. To approach this more easily, it appears necessary to refocus our analysis and examine the policy implemented in the areas of territorial development and crisis management, for which the State is the main actor.

[7] Source:https://www.afad.gov.tr/Dokuman/TR/18-2012092815547-yapisalolmayanriskler.pdf [consulted on 10 January 2015]

Generally, following an event of the magnitude of the Marmara earthquakes, analysis of the adoption and revision of legislative texts in the area concerned provides significant results and gives an idea of the institutional vision for improving management capacities. Two types of text are concerned: those promulgated to solve specific problems occurring by way of the events studied, and which can shed light on the deficiencies of the legislative system; and those which belong to a longer term perspective, and which point to the type of lessons learned from the experience.

In the case of the Marmara earthquakes, legislative inflation was observed in the post-earthquake period. If taking into account the period from August 1999 to July 2000 alone, 38 laws and decrees of application, 28 decrees, 6 rulings, 17 notifications and 9 circulars to offset the impacts of earthquakes were signed in Turkey (Ergüner 2011). In addition, the following years saw the promulgation of a large number of texts in many areas: the organisation of disaster management, a new law on municipalities, the organisation of aid, regulations on the control of constructions, insurance against seismic risk, the urban transformation of land exposed to risk. Analysing these texts one by one would be too complicated and would divert us from our goal. It is more interesting to study the dynamics at work in these legislative adjustments from which several lessons can be drawn.

Firstly, the inflation of texts in this area up to now underlines both the difficulties of making these texts operational and the deficiencies of a more global overview of risk management that takes risks other than only seismic risk into account. Other difficulties are more notably linked to the problems of technical infrastructures linked to seismic risks: the conversion of scientific information resulting from specific maps for micro-zoning into technical tools, the creation of active fault maps, terrestrial and marine seismological studies and the observation of seismic activity demands considerable investment and is time consuming.

Of all the laws modified the only one showing any progress regarding the perception of risks was that of 1957 relating to disasters: previously it placed emphasis on the areas affected once the risk had occurred; henceforth it insisted on the potentiality of the risk. Apart from the texts bearing on territorial development and post-earthquake policy, legislative texts focusing on the creation of new institutions responsible for disaster policy were also adopted: the use of credits to organise emergency operations, the reduction of vulnerability, the introduction of insurance systems, etc.

Their legitimacy was further reinforced by international funding agencies such as the IMF and the World Bank which contributed to financing the reconstruction of damaged areas and to the creation of an institutional structure to improve Turkey's readiness to cope with disasters. One example was *the Emergency Situation Management General Directorate* (TADUY), reporting directly to the Prime Minister, set up to manage the funds obtained by avoiding problems of lack of transparency, ensuring the best possible use of the funds and better inter-ministerial coordination. This institution remained non-operational until 2009, when it was dissolved by law 5902 which led to the creation of a new government organisation, the AFAD (*Emergency and Disaster Situation Management Directorate*), that henceforth

groups three agencies: the Disaster Affairs General Directorate (reporting to the Ministry of Public Works), the Civil Defence General Directorate (reporting to the Ministry of the Interior), and the TADUY mentioned above. Thus three functions are now exercised directly under the responsibility of the Prime Minister (intervention, planning and risk reduction) to avoid problems of inter-ministerial coordination.

Although legislative and institutional innovation demonstrates the will to improve the capacity to respond to seismic risk, the same does not apply to the transformation of these initiatives into concrete measures liable to provide satisfaction. The economic and political context in which these measures were adopted proved to be a barrier in this respect.

The Economic and Political Context of Change

The Turkish economy was very fragile when the Marmara earthquakes occurred, notably from the second quarter of 1998 onwards, as the economy slowed down despite the implementation of different stabilisation programmes under the aegis of the IMF. The occurrence of these earthquakes in a region in which a large number of industrial activities are situated slowed the economy still more, with the direct cost of the impacts estimated at $9–10 billion, causing the GNP to fall by 2.5% in 1999 (IUIFMC 2000).

The transient upswing attributable to the reconstruction works and the new IMF programme signed in June 1999 were unable to prevent the financial crisis of February 2001 which paralysed the Turkish economy. The post-earthquake policy was implemented when the Turkish economy, struck by the worst financial crisis it had ever undergone, was at its lowest point. This led to several consequences, one of which was that the cost of the earthquakes dented the already fragile economy still further. However, "thanks" to these earthquakes Turkey was able to obtain international loans, in particular from the World Bank[8]. Furthermore, a "special earthquake tax" was introduced. Through lack of specific attributions, and despite the considerable sums required to cover the cost of the damage, the receipts obtained from these tax measures served to pay the interests of the public debt between 1999 and 2002 and to stabilise the budget deficit rather than cover the costs of the earthquakes. These tax measures, which can be considered as a visible vector of social consensus originating from the earthquakes, were intended to be temporary (in fact they were essentially existing indirect taxes collected for the occasion, in theory until 2002), but they finally became permanent[9]. The final consequence of this conjunction between earthquakes and economic crisis was that the former,

[8] Initially $1.5 billion in loans from the World Bank, followed by $500 billion in loans from the IMF (World Bank 1999)

[9] The income collected to date is about 60 billion Turkish pounds, i.e. nearly $30 billion. However, little is known of how this sum is allocated. Source:www.dunya.com/depremvergileri-136477yy.htm [consulted on 10 December 2014]

by aggravating the seriousness of the crisis, finally legitimised the economic and financial recovery measures adopted by the government.

Furthermore, it could be seen that the integration of seismic risk in Turkey's long-term development strategy had suffered from the fluctuations of the economic and political context. The 8th plan (2002–2007, corresponding to the AKP's first term of office) partially incorporated seismic risk, reflecting the intensity of the debates at the time on the need for the State to take into account this type of risk in long-term development strategy. The 9th plan (2008–2013, the AKP's second term of office) omitted it, as priority was given to supporting economic growth in the aftermath of the crisis of 2008 originating from the United States and Europe. The 10th plan (2013–2017) reintroduces the reduction of seismic risk as an integral part of development strategy. In addition, there is now a national strategic action plan for seismic risks (2013–2023) (Kalkinma Bakanligi 2013).

Already severely affected economically, Turkey was also struck by a serious political crisis during the same period. It started with a series of scandals in November 1998, during which the coalition in power (the ANAP and DSP parties) fell due to corruption linked to a call for bids for the sale of a Turkish bank. This led to the sentencing of the Prime Minister of the time, Mesut Yilmaz, by the High Court in 2006 (a first in Turkey). Then followed the formation of a coalition government composed of three political parties in January 1999, after which a bank scandal in November 2000 obliged the government to intervene to reorganise the banks involved and, lastly, there was a crisis within the National Security Council in February 2001. This troubled period ended with the AKP (Party of Justice and Development) taking power after the elections of 2002, opening a period of political alternation that has continued to the present.

Throughout this period, following a series of major economic reforms implemented after the financial crisis of 2001 (notably under the aegis of the IMF), Turkey underwent a period of exceptionally stable economic growth, reaching an average of 7% a year between 2002 and 2007, due, among other things, to inflation being kept at single figures. Real living standards rose by almost 60% from 2002 to 2010, corresponding to the multiplication of the nominal GDP per capita by 3 (thus without account of inflation) (OECD, 2014). This progress led Turkey to become a net contributor to the IMF for the first time in 2014, whereas it had always demanded financial aid since its adhesion in 1947, the last time being after the earthquakes of 1999.

Already facilitated by the economic dynamism of the mid-2000s, the return of concerns relating to seismic risk management increased due to the occurrence of new destructive earthquakes in eastern Turkey: the first was in the region of Bingöl on 1 May 2003, with a magnitude of 6.4 on the Richter scale, causing 176 deaths; then two in the region of Van, the first on 23 October 2011, with a magnitude of 7.2, causing 604 deaths and serious damage; the second on 9 November 2011, with a magnitude of 5.6, causing 32 deaths[10].

[10] Source: http:// www.afad.gov.tr/tr/IcerikDetay.aspx?ID=30&IcerikID=269 [consulted on 3 January 2015]

It is in this renewed context that we analyse the emergence of new seismic risk management instruments in Turkey, leading us to assume that they will be more efficient than the previous ones.

Two Sides of Reducing Vulnerability to Seismic Risk in the Long Term: Urban Transformation and Specific Insurance (DASK)

In this part we describe two components of the strategy employed by the government to reduce vulnerability to seismic risk, to examine how they are incorporated in a wider perspective of urban development strategy, considered as a pillar of Turkey's economic development. The first covers all the urban renovation projects on the scale of Turkey, though for reasons of space here we study only the projects applicable to Istanbul. The second concerns the establishment of a specific insurance system against seismic risk, an individual mechanism which, as we will see, significantly contributes to reducing collective vulnerability by inciting awareness of the risk.

A characteristic of urban transformation projects is that they involve existing vulnerable housing stock, contrary to previous preventive measures (inspection of constructions, earthquake resistance regulations, etc.), which were aimed at buildings to be constructed. The aim is to renovate and rehabilitate the urban fabric throughout Turkey, by demolishing and rebuilding in the framework of the law known as "*transformation of urban areas subject to risks of disaster"* passed on 31 May 2012. This type of project existed already in the form of more limited pilot projects carried out after the Marmara earthquakes of 1999[11] and are henceforth applicable for the entire country. Their main aim is to correct problems relating to chaotic urban planning in large cities, all the more crucial given that the seismic risk for Istanbul has been clearly identified. 1.5 million buildings have been counted in the city, of which 80% are considered illegal (TMMO 2004). According to a scenario formulated by the metropolitan municipality of Istanbul in collaboration with the Japan International Cooperation Agency (JICA), a major earthquake could cause 50 to 60000 buildings in the city to collapse. Thus the implementation of these projects in Istanbul makes the city a laboratory for this new approach. Although the law on which the action is based concerns disaster risks in general, in practice it is being implemented with emphasis placed on seismic risk. The programme includes several types of project generating several types of urban transformation. Jean-François Pérouse (2011) has distinguished four: cleaning up illegal constructions;

[11] They recall law no. 5393 on municipalities, law no. 5216 on metropolitan municipalities, law no. 5436 on the protection and renovation of functional historical heritage and cultural buildings, and the law on the urban transformation project at the north entrance to Ankara. Furthermore, also noted were projects such as the urban transformation of the Dikmen valley by Ankara city council between 1984 and 1994, and the pilot urban transformation project for the Zeytinburnu area in the Istanbul master plan adopted in 2002.

the reconstruction of sensitive areas by taking seismic risk into account; the removal of industrial installations away from urban centres; the restoration of the city's historic fabric. At the end of 2013 nearly 20,000 buildings had been destroyed or undergoing reconstruction in the framework of these projects in Istanbul, while the annual increase in number of building concerned reached 30%[12].

Following the first phase of implementing this policy on which broad consensus was reached between the government, the municipalities and the professional associations (architects, town planners, engineers, etc.) on the need to focus on reducing vulnerability to seismic risk, growing divergence between these actors has been observed regarding the design of the projects. The main hurdle is the growing suspicion that the government has used seismic risk as an alibi for developing urban projects not exclusively intended to reduce vulnerability, despite the fact that the constructions are effectively earthquake proof. The government, through the Ministry of the Environment and Town Planning, and the public body responsible for reconstruction after the disasters, TOKI[13], took control over determining the risk areas scheduled for reconstruction and the implementation of the projects[14]. The philosophy of the urban projects was initially based on the ideas of participation, renovation and beautification, but the recentralisation of the decision-making process resulted in distancing the actors involved from the project designs (foremost of which were the residents themselves), strengthening the phenomenon of urban gentrification, and standardising constructions in a style disconnected from their physical and social environment[15]. In particular, the phenomenon of urban gentrification is part of a process of changing the land status in the renovated districts which thus become too expensive for the resident populations[16].

Therefore criticism against these urban renovation projects has strengthened, as to many observers they increasingly appear to be an opportunity grasped by the government to renovate the urban fabric and bestow it a new identity, above all in view to making Istanbul an international metropolis. Indeed, as from 2007 the urban development projects in Istanbul started to take on Pharaonic dimensions, and the list of works projected is stupefying: a third highway and railway bridge to cross the Bosporus, the construction of a major financial centre to form a junction between those of Frankfort and Dubai, two tunnels underneath the Bosporus (for the subway system and road traffic), a third airport which will be potentially one of the largest in the world, a gigantic canal project doubling the Bosphorus on the European bank,

[12] Source: http://www.csb.gov.tr/gm/altyapi/ [consulted on 10 February 2015]

[13] Council housing administration, under the authority of the Prime Minister.

[14] The reconstruction by the government of the areas damaged by the Marmara earthquakes restored the legitimacy of the public organisation, TOKI, which became omnipresent in property development from 2007 onwards.

[15] A symbolic illustration of this phenomenon is the district of Sulukule, initially populated by many Gypsies, but which became too expensive for them following the renovation of houses which were converted into apartments, between 2005 and 2008.

[16] The price of property in Istanbul increased by 25% in 2013, while the average increase for the rest of Turkey was 7.8% (Gyoder 2014).

a network of subway lines covering the greater part of the city over nearly 800 km, etc. In spite of the exorbitant costs of these works and their impact on the municipal debt, it is noteworthy that the credit rating attributed to Istanbul by the rating agencies (Fitch Rating and Moody's) remains favourable, with a BBB index (IBB 2015).

The second significant component of the government's strategy to reduce vulnerability to seismic risk involved setting up a specific insurance system. This was one of the original conditions demanded by the World Bank in return for granting loans. The role of the public agency founded in 2000 for this purpose, DASK (Natural Disaster Insurance Agency), is to manage a special fund to cover the material damage caused by disasters. This agency was set up to fulfil several objectives. The first was to establish a sustainable fund to manage reconstruction periods, fuelled by its own resources, meaning the money paid to take out insurance policies. DASK effectively took over another special fund whose financing remained shaky as it was linked to the national budget, which led systematically to increasing indebtedness and the creation of ad hoc taxation in the case of damage (as was done after the Marmara earthquakes). Another objective was to make the utilisation of the funds collected more transparent, a characteristic that should be guaranteed by the systematic allocation of the funds managed by DASK in the case of an earthquake. The third objective is the empowerment of individuals by setting up compulsory insurance. The final objective is to wield control over constructions, a field in which the crucial problems are the lack of construction inspections and non-compliance with the earthquake resistance regulations [17].

Regarding the last two points the new system is still seeking an efficient mode of operation, though it has come up against much resistance. Regarding the inspection of constructions in particular, the proposal to introduce insurance for the risks of damage caused by construction projects and integrate it in the DASK system to make the construction companies more responsible for their acts was not approved by the public authorities. One possible explanation for this is that the principle of third party civil liability insurance is still totally unknown to the Turkish insurance market, and to the culture of insurance in general in Turkey[18]. What can be seen above all is the determination of the government to proceed in steps, without overdisturbing an economic sector characterised by the almost total absence of insurance culture[19]. The construction sector is indeed the driving force of the Turkish economy (it represented 6% of GNP in 2013), and it is out of the question to bridle this engine by suddenly burdening it with additional costs. The lack of such an

[17] The data of the Ministry of Public Works show that most property projects are affected by errors of design and static calculations; also they are not subject to controls. In addition, 90% of construction sites use concrete that does not conform to regulations (Kocu and Dereli 2004).

[18] On the site of the Federations of Turkish Insurers, the column dedicated to the types of insurance sold does not indicate any sale of this type. Source: http://www.tsb.org.tr [consulted on 10 December 2014].

[19] Turkey is third worldwide and first in Europe for work accidents of which those occurring in the construction sector take first place in Turkey (ILO 2014).

insurance based on responsibility fifteen years after the Marmara earthquakes remains one of the major weaknesses of the system against disaster risk.

Progress has been made in empowering people, but remains insufficient. The previous legislation gave the government exclusive responsibility for rebuilding damaged areas, and people accepted this paternalistic role, thinking that it was after all up to the government to manage reconstruction. However, the government carried out this task badly for different reasons: procedures bound by bureaucratic and legal red tape, the financial magnitude of the projects, and the dissatisfaction of people once the projects had been completed. Very often too many or not enough dwellings were built, so that some remained empty or not all the people concerned were rehoused. Sometimes, the government gave these dwellings to people unable to repay their debt. The new law was supposed to overcome these difficulties, but its scope of action is limited insofar as it only covers legal buildings, with the exception of public buildings, industrial buildings and areas included in the urban transformation projects mentioned previously. In addition, recourse to private insurance is not yet widespread in Turkey which is below world averages regarding insurance against all types of risks, the payment of insurance premiums for full coverage amounting to only 1/5th of the world average. Lastly DASK is considered compulsory but this is not always the case in practice[20]. Conversely, people are increasingly encouraged (since 2012 in particular) to take out this special insurance for various reasons that range from obtaining property loans to signing contracts to different utility networks (water, electricity, Internet, etc.), or to the need to present this insurance when selling one's dwelling. In addition, taking out this insurance is influenced by two other parameters: the level of seismic activity in the area concerned and the level of economic development. According to official data, the number of insurance policies taken out was 2428 in 2001, 3725 in 2011, 4786 in 2012 and 6029 in 2013. The rate of penetration rose to 28.5% in 2012, after measures to encourage people to take out this insurance were bolstered. This rate of penetration is higher in the Marmara region, the most developed in the country (44%), whereas it is lowest in the region of Southeast Anatolia (23.6%), the country's least developed region (DASK 2014). According to a recent survey performed on insurance policy holders, a change has been observed in behaviours relating to insurance. Until recently people took out insurance because it was compulsory, though their perception of seismic risk now has a greater influence on their choices. The results of a survey performed on people insured by DASK showed that 44% of purchasers in 2011 took out insurance because they were obliged to. This figure fell to 28% in 2012, whereas the motive "earthquake readiness" increased from 39 to 49% (DASK 2013).

Finally, the last criticism levelled against the DASK system concerns the calculation of the insurance premiums. It should be based on the value of the goods insured and the related risk. In this case, no account is taken of the market value of the goods

[20] This is also the case for automobile insurance which is compulsory, but 20% of drivers have no insurance. Source: http://www.dunya.com/sigorta-sektorunde-dunya-gerisindeyiz-122685h.htm [consulted on 10 December 2014].

insured; it is replaced by a property surface area criterion. As for risk, it is determined by the government and not by insurance companies. The resulting insurance product provides little protection for the insured and is hardly an incentive for the insurers. However, the instrument has the merit of existing in a country where insurance products are scarce.

In parallel with this special insurance scheme, DASK has set up a system that issues insurance bonds based on the cat bond principle introduced in the United States in the mid-1990s following Hurricane Andrew and the Northridge earthquake, to compensate the difficulties of insurance companies to cover the cost of the damage incurred. The principle is simple: investors purchase bonds linked to a specific risk issued by an insurance company. These bonds generate an income as long as the risk concerned does not occur, otherwise the funds invested are lost by the investors and go to the bond issuer, i.e. the insurance company. The issuer of these bonds (named *Bosphorus 1*) in this case is DASK, which can therefore increase its financial capacities to cover the potential cost of earthquakes. The scheme is linked to a system that observes seismic activity in real-time, giving investors precise indications on the level of risk attached to the bonds purchased. This instrument has been heavily criticised all around the world, mainly due to the fact that the investors always try to interpret the risk coverage criteria in favour of their interests once the risks have occurred, in order to pay nothing to the insurance companies.

Lastly, setting up DASK has led to progress in the active mapping of risks in Turkey, so that its role covers not only disaster situation management but also seismic risk prevention.

In all, the result of this new insurance scheme has had less impact than expected. On the one hand it responds to several demands for reducing vulnerability to seismic risk, as it effectively combines increased financial resources, the empowerment of individuals and improved knowledge of seismic risk. But on the other hand it still suffers from distortions and is far from having been generalised due to the considerable inertia of institutional procedures and individual behaviours.

Conclusion

More than fifteen years after the Marmara earthquakes, the management of vulnerability to seismic risk in Turkey provides rich ground for exploring change at work in public policy, involving a large number of players acting in a complex situation. In 1999, when the earthquakes occurred, the perception of risk of individuals liable to exposure appeared limited, while the government took a paternalistic stance regarding seismic risk management. The results of this situation were presented in the first two parts of this chapter: the human and material toll of the two Marmara earthquakes was very severe, revealing Turkey's particularly high vulnerability to seismic risk. This vulnerability then continued due to the large number of deficiencies in government management of the post-earthquake period which stirred discontent in the population. However, while they complained about these deficiencies,

the people continued to rely on the authority and capacities of the government to manage this vulnerability. A major lesson drawn from this experience was that the main driving force for change was not the occurrence of the risk itself, which is astonishing when taking account of the magnitude of the disaster. The probable explanation is that people feel that the threat of an earthquake often remains blurred, and that once it has occurred an earthquake does not leave a clearer perception of the risk. Rather, it leaves the feeling that such an event cannot occur again in the short term. From this angle, of all the systems mentioned previously, it was the introduction of special insurance in the case of Istanbul which led to assigning an economic value to seismic risk, in other words it gave concrete reality to the costs incurred by this type of risk, which otherwise remain imperceptible (Ewald 1986). The scheme is far from being generalised, but it already portends appreciable changes in the behaviour of the actors concerned, if only because it obliges them to gradually take account of the potential costs of an earthquake in their real-estate decisions. The driving force of change in this case appears to be the most basic economic incentive, that is to say the cost/benefit ratio for the person concerned.

This new incentive did not arrive spontaneously for the reasons mentioned above; in addition, recourse to the principle of insurance is hardly widespread and little used by people in Turkey. It was necessary for the government, the major actor in seismic risk management in Turkey, to adjust its behaviour to the new information provided by the post-earthquake situation. Its response to these events was dictated by a number of parameters whose links progressively gave rise to the changes described in this chapter: the catastrophic toll of the earthquakes, whose cost greatly exceeded the government's capacities to manage the aftermath; the discontent of the population regarding the deficiencies of post-earthquake management, and the rise of protest movements in civil society; the new opportunities provided by the exceptional economic boom subsequent to the macroeconomic recovery after the crisis of 2001. We can probably add the desire to see Istanbul play a larger role in economic and financial globalisation (from 2008, corresponding to the AKP second term), and to making it a world-class city attracting foreign investors. The refusal by public authorities to recognise the existence of seismic risk in a densely populated area has shown itself to be an increasingly less profitable strategy (Nations Unies 2014: 268). On the contrary, it appears that cities and countries that manage their disaster risks efficiently are better equipped to attract foreign investment and strengthen their international competitiveness. The strategy deployed by the Turkish government to reduce vulnerability to seismic risk can therefore be summed up as follows: the recentralisation of decision-making processes regarding territorial development through urban transformation projects; and the transfer of part of the costs linked to seismic risk through the introduction of an insurance scheme intended to strengthen community empowerment.

The change in progress in Turkey in managing vulnerability to seismic risk is a multiform, slow and complex process that impacts equally on the institutions, the community, behaviours and individuals. Its two main macro-social motors appear to be relative political stability and the return of economic prosperity since the beginning of the 2000s.

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Chapter 7
Sociodemographic Pressure on Land in Madagascar

Mustapha Omrane

Demography and Land

Since the 1980s, the socioeconomic and political crises that have affected the countries of the South have brought to light the fragility of rural populations and their vulnerability to crisis situations in a context of poverty, lack of arable land, land insecurity and unfavourable geoclimatic conditions. Here, the question that interests us is demographic pressure: growing demand from the population for land in limited supply and without possibility of extension.

The idea according to which demographic pressure threatens the availability of land has been raised with respect to many countries (Ruanda, Somalia, Kenya, Burundi, Lesotho, Malawi, etc.), whose land can only feed half their populations if they continue to undergo demographic pressure at present rates, even when using optimised agronomic techniques (Roca 1991). According to the *State of the World's Population* 1990, "in Ruanda, the peasants cultivated an average area of 1.2 ha in 1984. With a synthetic fertility index exceeding eight children per female, half of which are males, each son will receive an average of 0.3 ha at the time of their marriage (with the hypothesis of very low mortality). On the basis of projected fertility rates, the grandchildren will receive less than 0.1 ha towards 2040. Thus, in only 60 years, the size of the average farm will fall by more than 90% due to demographic pressure" (Sadik cited by Roca 1991: 10). Consequently, this situation may lead to high rates of emigration by the heads of households and their children in search of other sources of income, just as it could encourage a reduction of fertility in response to shrinking land resources.

The rural peasants of Madagascar hand down plots of land that shrink from generation to generation, often without legal deeds of ownership due to an administrative

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system poorly adapted to managing land. Thus the average surface area cultivated and available per household declined from 3.8 ha in 1993 to 1.3 ha in 1999 according to the nationwide priority household surveys (PHS), whereas the agricultural census performed in 2004–2005 revealed that each peasant had an average surface area of 0.87 ha.

Therefore certain sociodemographic behaviours, especially fertility, are considered as factors of rarefaction of arable land, while migration and late marriage are seen as responses to the shortage of such land. To our knowledge this topic of research has not given rise to works on the Madagascan Highlands or for the whole of Madagascar. Working in other geographical contexts, Schutjer et al. (1983) analysed the impact of access to land on fertility in Egypt using two indicators: the mode of acquiring land and the surface area of the farm. The latter influences fertility positively insofar as a household with access to large arable surfaces can increase its income by employing a large number of its members on the family farm. This assumption linking fertility with the issue of labour has been called the "*land-labour demand hypothesis*" (Stokes and Schutjer 1984).

Sharif and Saha (1993) showed that in Bangladesh the fact of being an owner is a decisive variable in the level of fertility. Clay and Johnson (1992) emphasised that the size of the farm had a significant effect on fertility, although the relation between the number of children and arable surfaces was particularly discernible above seven children. Moreover, they showed that the category of larger farmers can ensure better nutrition for the mother and children, increasing the children's chances of survival and thus supplying more labour for the family farm. The probabilities of infant mortality are higher in the category of small landowners who would have less labour to work the farm. The land-fertility relation is therefore a question of the supply of children.

Cain (1978, 1985) put forward the premise of "*Reverse causation*", by claiming that households increase or "*adjust the land according to family size*", as a function of the increase in the number of children, whereas the "*land-security hypothesis*" postulates that land plays a role of pension insurance for elderly individuals in rural areas. Land substitutes children and reduces their economic value, and thus negatively affects fertility in the long term. This premise was also validated by, among other authors, Stokes and Schutjer (1984), and Sharif and Saha in Bangladesh (1993). The fall of fertility in rural areas in North America and in Europe in the nineteenth century was attributed to the shortage of arable land. Rising land prices in Pennsylvania during this period led to a significant decrease in the fertility of farming households (Alter et al. 1978). As for Boserup (1985), she observed that common ownership of land tended to encourage fertility whereas the privatisation of land could discourage it. A quite similar argument was proposed by Caldwell et al. (1982), who opined that the appearance of capitalistic production methods in farming reduced fertility.

In brief, a majority of authors seem to consider that land is a determinant of fertility whether direct or indirect, dependent on the farming system, income and the economic activity of children in rural areas. However, as far as we know the reverse effect of fertility on land availability and, to a greater extent, on land ownership, has not been sufficiently investigated. Nonetheless, the reduction of surface areas is

directly linked to the number of heirs, thus understanding succession procedures is fundamental for deciphering this relation between land and demography. We will attempt to understand the sociodemographic responses of the population to the lack of arable land in Madagascar.

Land ownership in the Malagasy socioeconomic framework is vital. The legitimacy of the land rights of an individual farmer are historic, linked to the heritage handed down from their ancestors who founded the village. Socially, the notion of ownership is based on links of kinship in the area. Therefore, the local community acknowledges the rights of an individual over his land through his belonging to a lineage, even if he has no official property deed. In the Malagasy rural world, the history of *fokontany* (village) goes back to that of the first occupant who "opened" the land. Opening in this case means the appropriation of new lands, and certain populations in the south of the island make it the object of a religious rite in which individuals ask for their ancestors' permission to work the land and thus enjoy their blessing and protection against evil spirits (Ottino 1998).

The social identity of an individual in the rural environment comprises three main elements: being the descendent of the founding ancestor of the village, owning land, and having a family tomb in the village in which members of the family group are buried. Malagasies, like the villagers we met, consider that they honour the memory of the ancestors who left them their land by farming it. Abandoning the land or else leaving it in the hands of "foreigners" (Malagasies consider that a person with whom one has no family relation is a foreigner) invokes "*The curse of his ancestors and great misfortune can strike the person responsible*". These ancestors therefore play a predominant role in the collective consciousness of the populations and more than 40% of the island's population say that are faithful to the traditional religion based on ancestor worship, in which certain rites such as *famadihana* (exhumation of bodies) are still practiced Augustins (1973). The relation of rural Malagasy populations with land resources, thus with the environment, must be interpreted via the registers of economics and anthropology. The challenge of sustainable resource management is to reconcile these two dimensions. By virtue of this, the kingdom of Imerina confers an essential power to the village committees (*fokonolona*)[1] to manage land and social relations. The members of these committees are drawn from the community.

[1] The term *fokonolona* evokes the community of descendants stemming from the same ancestor and living in a precise area (the people from here). The term *foko* means the descendants, and *olona* means the person.

Access to Land in The Highlands

Duty of Handing Down the Land of the Ancestors

Intergenerational succession is the main means of obtaining land in Madagascar. On the basis of their research area in the Highlands[2], Blanc-Pamard and Ramiarantsoa (2000) identified three main means of access to land: (i) clearing and growing crops on non appropriated land (right of first occupier); (ii) inheriting land and, lastly, (iii) acquiring land by purchasing. At the national level, inheritance represents 53.2% of modes of access, followed by purchase in 24.1% of cases, then renting and share-cropping with 10.6% (République de Madagascar 1999)[3]. In our research area (the rural commune of Ampitatafika)[4], access to land is obtained more through succession, since this method involves about 84% of the cultivated plots.

The issue of ancestors in Madagascar is crucial. For Malagasies such as those of the Highlands, kinship is based on relations with ancestors. An individual's identity in relation to their ancestors is based on the succession of the latter on "family" lands located in a known village. This localised family heritage forms a genuine foundation for social and family links. Thus the ancestor is not only a forebear; he lies at the origin of the land handed down through his role as the founder of the village: "It's a society of ancestors. The societies of Madagascar effectively base the collective and individual identities of their members and the hierarchies of their social orders on the idea of ancestrality" (Ottino 1998: 51). One is linked to an individual if one shares a common ancestor, living or dead, on either the father's side (*fokon-drae)*, or on the mother's side (*fokon-drene*).

Land pressure is very high in Ampitatafika[5]. Whereas the average size of the plots cultivated is 0.7 ha for all the Highlands and 1.2 ha at national level (République de Madagascar 1999), it is only 0.46 ha in Ampitatafika. The figures speak for themselves, nearly half the households cultivated less than 0.25 ha (Table 7.1), indicating the meagre size of arable surfaces following the succession of several generations in the same area. The young peasants are undoubtedly more numerous in owning small parcels.

The land received from parents at the beginning of married life makes up most of the property belonging to these young peasants. The meagre capital in terms of land

[2] Their research was conducted in the towns of Tsarahoenana and Andranomangamanga, situated about twenty kilometres west of our research area of the 4D Programme.

[3] To which must be added 10.8% of land distributed by the village 1.3% of "miscellaneous".

[4] The data was collected between 2003 and 2006.

[5] Unless mentioned otherwise, all the data are taken from the Survey Programme Demographic Dynamics and Sustainable Development in the Madagascan Highlands, carried out in 2003 on a sample of 1621 households in the commune of Ampitatafika. This programme associates six Malagasy institutions (Institut Catholique de Madagascar, INSTAT, Ministère de la Population, Centre National de Recherche sur l'Environnement, PACT Madagascar, Ecole Supérieure des Sciences Agronomiques) and three French institutions (LPED/ IRD-Université de Provence, Popinter/Université Paris V, Forum/Université Paris-X).

Table 7.1 Distribution of households according to the surface area cultivated

Surface area	Number of households	%
< 0.25 ha	768	49.1
0.25 to 0.49 ha	434	27.7
0.5 to 0.99 ha	211	13.5
1 ha or more	150	9.6
Total	1563[a]	100.0

[a]Of the 1621 households surveyed, 58 did not have a farm land

now inherited by young heads of households can be explained by two main facts, by the high fertility (6.9 children per woman for the period 2000–2002), leading to high demographic growth and by the inheritance of a relatively inelastic supply of land. The local population is generally divided into lineages which share the area whose perimeter has remained the same as it was since it was initially founded by the ancestors. Thus the peasants farm the land inherited within their lineage. The crucial logic underlying the transfer of land to new generations of peasants is that it reflects social and family values. The villagers perceive it as the parents' duty to their children and grandchildren. The role of the peasant household head is to preserve and hand down the goods[6] of his ancestors to his offspring, which in the case of the population of the Highlands means land.

The Rules of Sharing

Traditionally, land is donated to the children of this population when they marry, after the child has founded a household independent of that of their parents. The endowment is granted during the father's lifetime by virtue of the principle "*One does not inherit from living parents*". The lands are transferred in usufruct and the endowment operation is called "*natolotra*" by the donators. If the child cohabits with his parents after the marriage, he generally continues to cultivate the family lands and receives his share once he has left his parent's home. In other though less frequent cases, the young peasant can receive a share before entering into union to prepare for his marriage.

As the years pass, the joint heirs will receive, in turn, a share when they marry. With this type of endowment, very rarely subject to a written deed, the beneficiary only accedes to the right to farm the land, as the father maintains his full rights over it and does not consider his children as owners. According to the traditional law of the Highlands, the individual is *masi–mandidy*, that is to say absolute master of their property. Therefore the distribution accorded by the owner during his lifetime and

[6] In the spirit of traditional law, like that applicable to Malagasy individuals, the notion of heritage basically concerns land, a herd of cattle and a home.

after his death must be respected, and jurisprudence recognises this distribution even when verbal. The land is donated so that each child will have at least one plot. This principle can also be found in the logic of acquisition applied by the villagers who, not having enough plots to give to their children, try to acquire new land by purchasing it. However, the low supply in the village and limited monetary resources restricts this method of obtaining arable land.

In Malagasy law (Article 79) "the division is made in equal portions between the joint heirs. As much as possible this is done in kind or, failing this, at least with the attribution of cash payments to offset the inequality of the lots" (République de Madagascar 1968). Whereas the populations apply a wide variety of norms, the system of division in the population we studied was not very equal, contrary to other rural populations of the island such as the Bezanozano in the east who divide their legacies into very equal portions (Aubert 1999).

The households in the villages of the rural commune of Ampitatafika appear to be divided into three groups regarding access to land:

1. Households belonging to a tradition according to which girls have no right to inheritance. "One of the most indisputable customary rules: goods stemming from the paternal family can only be passed on to the relatives of the paternal line; the goods stemming from the maternal family must remain in the hands of the maternal relatives". (Thébault op.cit, p. 576). The individuals surveyed in Ampitatafika confirmed that this rule was still present in customary practices[7];
2. Households that apply the rule of one third or one fifth. This rule consists in attributing one third, the most usual share, or one fifth of the father's land to be shared between his daughters. This means that the girls must provide a third of the expenses linked to family obligations, especially the ceremony of *famadihana*, while the boys provide the other two thirds;
3. Lastly, certain more innovative households, or those whose ancestors were already innovative, opt for equal shares between daughters and sons. Therefore the joint heirs participate equally to joint family expenses. For the three groups, all the boys are treated equally, and little preference is observed between elder and junior brothers in terms of surface area. Rights of access to land for individuals depend on rules, and a distinction must be made here between rights and rules: "rights are the product of rules and not their equivalents. They designate specific actions authorised by the rules whereas the rules designate the prescriptions that give rise to authorisations" (Schlager et Ostrom 1992, cited by Chauveau 1998: 68).

[7] Article 83 of the official law of Madagascar stipulates that "joint heirs can agree that female heirs will receive their share of the succession in the form of an amount of money. In this case, the act of handing over the amount must be preceded by an estimative inventory of the goods to be shared, said inventory being officialised by a notarial or certified deed" (Republic of Madagascar 1968).

The Demographic Scapegoat

As we have seen, access to land for young peasants occurs almost simultaneously with a demographic event: marriage. Two other demographic factors, the number of children and the *gender ratio*, are also observed when the land is shared after the death of the father.

Some heads of households do not apply the rule of one third or one fifth even if it is practiced in the family group. The meagre availability of land, at least availability perceived as such with respect to the number of boys, leads some peasants to exclude their daughters from the share-out. Thus the principle of equal shares may be abandoned by peasants in favour of them due to a lack of land. Hence, when the gender ratio weighs heavily in favour of the sons (e.g., five sons and one daughter), applying the rule of one third results in the sons receiving individual shares with smaller surface areas than their sister. In this case, the rule of one third is abandoned. To sum up, the higher the number of daughters in comparison to the number of sons, the less chance they will have of receiving land.

Another "arithmetical" factor plays a role in the fragmentation of plots and the mode of sharing. The fact that the number of plots divided by the number of beneficiaries does not result in a round figure (for example fifteen plots for six children) will determine the rules for rounding off or arrangement generally in favour of the sons. Hence one donator declared: "*If the plots can be divided between the children* (for example, one or two per child), *I will give equal shares, if not I'll apply the rule of 1/3 for the daughters and 2/3 to the sons*".

Schematically, bearing in mind the theoretical rule of "*at least one plot per child*", and assuming that the surface areas of the plots are comparable, the practices observed in the area can be summarised as follows: if the number of plots is equal to the number of sons, the daughters have less chance of acquiring land; if the number of plots is higher than the number of sons, the daughters have more chance of acquiring land and of sharing the remaining plots; if the number of plots is lower than the number of sons, the latter take priority; lastly, if the number of plots is equal to the total number of children, the daughters have more chance of acquiring land, provided that they do not outnumber their brothers. In this rural environment, marriage is traditionally contracted outside the family, thus often outside the village. This tradition is not without links to the daughters' right to inherit land. Indeed, for these rural inhabitants, giving their daughters the land of their ancestors amounts to giving it to individuals outside the family, thus to "foreigners".

The plots do not always have geometrically simple shapes, thus the villagers' rather unusual notion of surface area further complicates the donation, making it approximate. We recorded a single case in which the plots were measured by the donator, although this is common practice in the case of land transactions. For the peasant owning several plots of unequal size, sharing them out is still more complex, especially if the plots are distant from each other.

Donation is therefore a complex operation, comprising not only the dimensions of land and demography, but also a socio-historic one. The rules and norms of

sharing reveal flexibility in the case of "scattered" land, evaluated in a very approximate way and presenting varied quantitative and qualitative characteristics. Demographic and land aspects combine with social norms, resulting in modes of sharing left to the appreciation of the head of the household. Thus, for a number of households having an equal surface area and according to the same sharing rule, the individual plots left to children can finally prove to be quite different as a function of the household's demographic structure and the number of plots owned by it.

Sociodemographic Responses to The Lack of Arable Land

Regarding access to land, most heads of households are the owners of their land, even though a small number of them work plots as sharecroppers or rent them, in addition to those that they own. Sociologically, the situation observed is unlike that seen, for example, in Bangladesh or in India, with rationales diverging between sharecroppers and tenants on the one hand and landowners on the other. The fact of not being the owner of the land one farms leads to an economic rationale different from that of owners, which could justify demographic behaviours in accordance with the mode in which peasants are able to acquire arable land. For example, sharecroppers do not benefit from all their production, causing them to maximise it and to maintain specific social relationships with the owners, and also with the children in terms of arms and mouths to feed. In the Highlands region, intergenerational succession is the main mode of access to land and it has led to the rapid reduction of surface areas. As noted previously, the lack of arable land is a constraint for the villagers in the same way as the lack of money and the inadequacy infrastructures.

Observed Fertility

Is the reproduction of rural couples driven by the need for labour for the family farm, as proposed by the hypothesis of *farm labour demand*? Indeed, agricultural activity requires a great deal of labour in a context of little mechanisation. The size of the household and that of the farm are two key variables in the relation between land availability and demographic behaviours. In this part, we above all try to know whether surface area has an impact on the number of children.

Generally, the larger the surface area of the farm the more children the farmer has (Table 7.2). The proportion of peasants who have seven or more children increases with the size of the family farm. Family needs for farm labour at first sight appear to drive the demand for high fertility, therefore supporting this theory. In a context in which agriculture is hardly mechanised, the number of individuals available for the family is a fundamental factor of production. In this case, the cost of a child does not represent a barrier for parents whose fertility answers the need for farm labour.

Table 7.2 Number of children according to the size of the farm

Size of farm (in ha)	< 0.25		0.25 to 0.49		0.50 to 0.99		1 ha and more		Total	
N children	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%
0 to 3	273	35.5	141	32.5	52	24.6	38	25.3	504	32.2
4 to 6	170	22.1	120	27.6	62	29.4	36	24.0	388	24.8
7 or more	325	42.3	173	39.9	97	46.0	76	50.7	671	42.9
Total	768	100.0	434	100.0	211	100.0	150	100.0	1563[a]	100.0

P (probability of Chi2) = 0.02: the relationship is significant at 5% (Pearson). V (Cramer) = 10%
[a]The same trend is found if the heads of households without partners (310) are deducted

A priori, the economic value of a child's labour outweighs the costs it generates (Omrane and Ramasinjatovo 2005).

The great majority of peasants do not have a precise idea of the surface area of the lands they farm. Their unit of measurement is the number of women required for transplanting and the number of men needed for daily tillage. As a general rule, a salaried woman can transplant 200 m^2 in one day, i.e. fifty women for one hectare, whereas two men are necessary to till two hundred m^2. This approximate notion of farm size is made even more approximate by the scattering of plots and their sometimes heterogeneous geometries[8]. This makes it difficult to analyse a correlation between surface area and fertility. Owning one or one and half hectares is not always enough to ensure total food security for a large family with seven or more children. Cash is also needed to finance agricultural work, spend more for education, clothing and healthcare. The reality of rural agriculture in the Highlands, as elsewhere, certainly shows that farm size is an important determinant of the level of production, but it is not the only one.

Desired Fertility

Is the number of children peasants wish to have related to the land surfaces farmed? In this area, the peasants marry in order to have children to which they must bequeath their land. Rural farmers are convinced that they lack land. This resource is increasingly insufficient to produce the crops necessary for the subsistence of their households, as can be seen through the purchase of rice and other food products. This perception is part of the local context of insufficient land. Furthermore, the category of large farmers is not big enough to warrant a clear cut division between large and small owners, but it does bring to light a trend and permits building solid hypotheses. The link between desired fertility and land surface confirms the same

[8]When collecting data on surface areas, we asked the farmers how many women (transplanting) and men (labour) were needed to perform the work on their farms in one day. We then converted the number of wage earners into surface areas. To validate the conversion, we compared the surface areas measured of about sixty plots with the estimated surface areas.

Table 7.3 Ideal fertility of heads of household according to farm size

Size of farm (in ha)	< 0.25		0.25–0.49		0.50–0.99		1 ha or more		Total	
No. of children desired	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%
0 to 3	56	16.5	42	17.8	10	9.6	15	20	123	16.3
4 to 6	185	54.4	129	54.7	60	57.7	31	41.3	405	53.6
7 or more	99	29.1	65	27.5	34	32.7	29	38.è	227	30.1
Total	340	100.0	236	100.0	104	100.0	75	100.0	755	100.0

P=0.02. The relationship is significant at 5%. V (Cramer) = 6%

orientation which we underlined with real fertility[9]. The heads of households desiring seven or more children are more numerous in the case of those farming large surface areas (Table 7.3).

The reproductive behaviour of the villagers therefore appears to fall within the logic of farm management. By comparing smallholders (less than half a hectare) with larger farmers (one or more hectares), the villagers' behaviour regarding fertility appears to correlate with the size of the surface areas farmed. Thus children are a source of wealth which, along with land, forms the socioeconomic capital of rural households. What is more, the lack of land does not necessarily lead to lower fertility. In a context of scarcity of arable land and poverty, households can maintain high fertility in order to diversify their resources and increase family income (Tabutin and Mathieu 1996).

The ideal solution for the individuals met is to have *plenty* of land and *plenty* of children[10]. The availability of land – as a condition – is mentioned first. It is thanks to the land that the peasant is able to feed his children until they are old enough to work. The peasants prefer to have a lot of land and few children rather than the contrary. At present, limiting the number of births is mentioned as a response to the *crisis*, as the reduction of available surfaces for the young leads them to desire fewer children than their parents. In their eyes, there is less and less land available for subsistence. Even households with seven or eight children would prefer to have only half this number. Men and women have the same desired fertility and expressed no preference for one gender or the other, though they generally preferred to have an equal number of boys and girls.

Such patterns are linked to the economic role of women and their involvement in the main steps of family rice production. Women's status is heightened through the sale of their labour for a wage in return for the same activities during the transplanting season. All said and done, given the high value placed on fertility, the fact that a number of peasants sometimes wanted fewer children than their parents signalled a change to be underlined by a downwards trend of fertility.

[9] The information on the number of children desired concerns only the heads of households under fifty years old, living in a couple.

[10] It is the custom in Imerina that an individual is called by the name of one of his children (Bontems 2001).

The Issue of Age

What role does age play in the land-fertility relation? The fertility desired by the young is lower than that of the older members of population. This result modifies the hypothesis of fertility according to needs, though for some authors the land-fertility relation is only a question of age, and the link forged does not vanish when controlling for age of head of household (Clay and Johnson 1992). This is because the quantities of land owned can increase through acquisitions occurring during the peasant's life (and that of his wife), as can the number of children in the rural contexts of underdeveloped countries in which family planning is little practiced. Therefore there is a "false relationship" between land availability and fertility (Clay and Johnson 1992). To clarify this ambiguity, we have calculated the average surface areas farmed by the members of the household broken down by the age group of the head of the household (Table 7.4)[11].

This distribution is theoretical and represents the surface area which would available for each member of the household if the land were shared equally between all the children. Allowing for fluctuations perhaps due to the variability of parental donations, the older the head of household, the larger the area farmed. This leads to two conflicting hypotheses:

– (i) the peasants increase their surface area as a function of the number of children (theory of reversed causation), but new acquisitions require the availability of cash, which is less obvious for large families;
– (ii) individuals increase their offspring inversely according to the surface areas they acquire (theory of *farm labour demand*). At a more basic level, regarding land transfer practices, the acquisition of new surface areas does not necessarily occur with the birth of children. Most young people receive the major part of their land from their parents. Thus *reverse causation* does not apply to this area subject to high land pressure and intergenerational succession.

Table 7.4 Average surface area by member of household according to the age group of the head of household

Age groups	Ratio of surface area farmed (are)/number of resident members
16–24	08.6
25–29	09.2
30–34	07.5
35–39	08.0
40–44	09.8
45–49	11.1
50–54	12.7
55–59	11.6
60 and over	14.9
Total	10.4

[11] Only 5.0% of the population is sixty years old or older.

Table 7.5 Surface areas farmed according to the age of the head of the household

	< 35 yrs		35–49		50 yrs and above		Total	
Size of farm (in ha)	(N)	%	(N)	%	(N)	%	(N)	%
<0.5	461	83.8	276	74.0	465	72.7	1202	76.9
0.5–0.99	60	10.9	53	14.2	98	15.3	211	13.5
1 ha and more	29	5.3	44	11.8	77	12.0	150	9.6
Total	550	100.0	373	100.0	640	100.0	1563	100.0

Despite a very low intensity (V = 7.1%), a relationship exists between the surface area of the farm and the age of the head of the household (the value of Chi^2 is 32.2 and is significant at a threshold of 1%)

More generally, identifying the content of the land-fertility relation is in itself an important scientific result as it permits distinguishing between dependent and independent variables. Analysis of our data shows that would be foolhardy to focus on only two variables, namely farm size and the number of children. The expected reduction of fertility with the reduction of surface area does not stand out clearly from the quantitative analyses; other variables are needed as well as qualitative information. In truth, the variable "surface area", contrary to the two variables "number of children" and "resident individuals", is interpreted in reverse direction, i.e. downwards. The surface area does not increase as a function of the number of children or resident individuals (theoretically joint heirs), quite the contrary, it falls as a function of these two variables, via intergenerational succession. The young have less land than their parents, and their children will have, all things being equal elsewhere, less land than them. Table 7.5 displays surface area farmed according two three categories of age of heads of households.

Indeed, those under 35 years old more often cultivate small farms (less than 0.25 ha). A greater number of peasants in the two older age groups cultivate larger surface areas. We should have, especially for those over 50s, relatively fewer individuals possessing large surface areas, since the peasants of this category transfer the usufruct to their children after their marriage. The latter cultivate the land, but it is the parents (often the fathers) who remain the owners. The figures, above all for the 50+ age group, do not therefore reflect the fragmentation of family land capital through time: the surface areas are over-estimated[12]. Furthermore, when the heads of households answered the question on surface area, they included the land that they had donated to their children. The latter, if they were heads of households themselves at the time of the survey, declared only the land that they had received from their parents. Therefore, this shows that the process of donation had not been completed since the heads of households counted the land given to their children.

Hence quantitative information is insufficient for taking into account the obviously complex relationship between farm size and the level of fertility. Acquisitions

[12]The information is reliable as it concerns the great majority of surveys.

remain rare outside family succession, so it is difficult to establish a link between surface area and the number of children in a context in which arable land is scarce and where rights to land seldom go beyond the family circle. Generally, individuals do not own all the land of their inheritance at the time they marry, thus before they have children, but they can have an idea beforehand of the size of the land they will inherit from their father before they have a certain number of children. If one accepts that an individual orients their fertility according to their economic situation, this can exceed the capital represented by land. Economic capital has different sources, the first source of financial income being, we recall, wages from farm labour (23.5%), followed by farming (17.4%), livestock breeding (16.7%), wages from private non-farm work (14.6%) and commerce (12.6%). An individual can therefore consider other sources of income, or else hope for a limited number of births while waiting for *"better days"*. By considering land surface areas as an independent variable for the population of Ampitatafika, the distribution of peasants according to their age does not provide a pertinent explanation here for the quantities of land farmed as a function of age. Neither is it pertinent to compare –in order to reach solid conclusions– a small category of owners (about a tenth) with more than one hectare to a majority less well-endowed with land; it is only possible to identify a trend.

Child Migration

The Migration of Heads of Household

In this rural area, 83.6% of the population surveyed was born in the commune of Ampitatafika. Of the 7820 individuals surveyed, only 16.4% were born outside the commune, 3.6% came from another *fokontany* of the commune and 11.8% came from other regions of the Province of Antananarivo. The past migration of current heads of households, before setting up definitively in the rural commune of Ampitatafika, highlights that many of them had travelled for short, medium and long periods. 698 heads of households had migrated at least once, and many of them had migrated several times. Migrants are most usually single when leaving (61.7%), since more often than not they seek work at their place of destination. Half of them migrate to find work, about a third migrates for family reasons, notably marriage (9.1%) and only 6.6% leaves to follow studies. The migrants frequently leave alone (53.3%), and 28.2% of them leave the commune with their spouses, some of whom have children. These individual heads of household have travelled considerably in the past, as each of them has made at least one trip. They generally go to urban areas, although a not inconsiderable number of heads of household go to rural areas, in particular to sell their labour during the seasons when the need for farm labour is greatest. The quest for financial income is not a new phenomenon, and appears to be linked to the socioeconomic reasoning of the villagers.

We identified 1726 migrant children in the study area. This emigration involved 620 households (of 1621), i.e. more than a third of them[13]. It is noteworthy that 61.8% of households have no migrant child, whereas 38.2% of them have an average of 2.8 migrant children. The children of heads of households emigrate at a relatively young age, since the median age at the time of departure is 18 years old. Girls make up 55.6% of migrant children, though the primary cause of migration of both girls and boys is to seek work (52.8%). Given that nearly 30% of departures are due to marriage, this concerns girls more than boys. Globally, the migration of children reflects that of their parents, but seems longer and ends in installations at the first places of destination. More girls leave than boys. We shall see further on that this can be explained for the most part by the question of labour supply.

The Hypothesis of Land Availability

Are the households that own the smallest plots of arable land those whose children are most numerous in leaving the commune of Ampitatafika? The hypothesis of the effect of land shortage on migration can be justified by the local context, influenced by the lack of sources of income outside farming, which remains basically a family affair and oriented towards self-consumption. One could expect less mobility for children from households better endowed with land. For the first category, leaving becomes a strategy of survival to overcome a situation of poverty. The distribution of households by size of land and migration shows that every category of farmer is concerned (Table 7.6).

Proportionally, households with large farms appear to be more involved in migration than the other categories. However, this concerns the oldest heads of household who of course have more (and older) children than persons owning less than 0.5 ha (mostly young people). The oldest heads of household own more land than the

Table 7.6 Distribution of migrant children according to the size of their household's farm

	Households with at least one migrant child		Households with no migrant children		
Size of farm	(N)	%	(N)	%	Total
< 0.25	79	36.3	489	63.7	100.0
0.25 to 0.49	161	37.1	273	62.9	100.0
0.50 to 0.99	81	38.4	130	61.6	100.0
1 ha or more	72	48.0	78	52.0	100.0
Total	593[a]	37.9	970	62.1	100.0

Scores: $X^2 = 7.09$ is lower than the value read in the table of khi2 (within three degrees of freedom)
[a]The surface areas cultivated are unknown for 27 households

[13] Information was recorded on the children of the head of the household who had left their parents' home for another commune, and on the migratory history of the head of the household.

young who receive an ever-shrinking heritage in land. In the Malagasy rural world, an individual acquires most of his arable land through succession from his parents, since acquisitions through purchases are rare and indirect methods of exploiting one's labour such as sharecropping are not commonplace. The statistical relation between the level of land availability and the fact of having or not having a migrant child does not demonstrate a solid link. Once again, qualitative information is vital for better understanding of the migratory logic within the population.

The interviews held with fourteen households having at least one migrant child showed that all the children, except for one case, received offers of migration from members of the family, made from the village or employers met in the area. Some migrant children proposed to members remaining at home to join them. This logic holds for both genders and sometimes leads to the departure of all the boys or all the girls, and even all the children. The offer is made by members of the family by solidarity with the original family, and also to strengthen their social networks in the place of residence and to profit from cheap labour. This can be the case of girls recruited for domestic work. The offer is generally accepted by the future migrants and their parents, and most usually, the activity is known in advance, likewise sometimes for the wage. This practice shows that individuals are less inclined to leave for *"an adventure"*. 89% of them leave knowing someone in the place of destination, the relation between the employer and the migrant child is ostensibly important for the parents. In addition to the security sought through social links, the economic logic consists in not wanting to lose an active member for the family farm without a minimum return.

The Reasons for Departure

A relatively small number of interviews held in several villages revealed a fairly homogeneous strand of motivations for departure: "*My children decided to leave for Tana to find work, because we're poor and can't live only from working our land*". The inheritance of family land is no longer sufficient to satisfy subsistence needs, making migration a clear response from the population confronted by this lack of land, and thus poverty. For Bonnemaison, "migratory movements are less the effect of attraction from the outside than the result of a vital need for the demographic and economic equilibrium of village society" (Bonnemaison 1967: 69).

The role of land is implicit in the need for security, since the villagers reason in terms of the global profit derived from the farm, thus essentially quantities of subsistence available for the members of the household from one harvest to another. It is true, however, that income is not the only reason with respect to children (Bonnemaison 1967). There is also the hope to live in a different environment and have a regular wage, since economically the incomes earned at the place of destination are not always higher than what could be earned at the place of origin. It should be recalled that nearly a third of the emigrants leave this rural environment for another one, probably with the same stage of development as that of the region of Ampitatafika. Deschamps raised the question of the return of young migrants in the

middle of the twentieth century by placing emphasis on their aspiration to a different life: “this freedom, far from the surveillance of their village, pleases them, even if it is miserable. Many do not return …” (Deschamps 1959: 98).

The heads of households and their spouses questioned did not seem averse to the possible departure of their remaining children: “*I think that my children who stay in the village could leave, since if we had continued to farm the land (live only from the land) they would be exhausted*”. Their logic of survival appeared to be founded on two main options: that of having enough land locally, or that of leaving. The weakness of the local economy, periodic crises (political stability, generalised rice shortage) and the limited outlook also drives the children of large landowners to leave. For them, education can result in lengthy migrations for children. The latter leave their family homes at the beginning of secondary education to pursue their studies in schools outside the commune or even the region in the case of higher education. Education opens up the outside world to the young from this rural environment, and it can also offer them a certificate and thus access to the labour market in urban areas.

The Financial Contribution of Migrant Children: The Replacement of Labour

On average the children of the area visit their parents 2.9 times a year, 19.5% of them did not visit their parents and 35.1% had only returned once during the year prior to the survey. The same proportion of children (35.1%) returned to visit their parents from two to five times. The visits are awaited and interpreted by the villagers as the children’s desire to return. One possibility that cannot be ignored is that migrant children feel more secure when they maintain their family ties. The hypothesis of a relation that can be put to good use on returning to the village in the case of unemployment (with the hope of having a share of land) was proposed by Lucas et Stark (1985). In the population studied, 74.4% of children help their parents by giving them money and nearly as many (70%) regularly send them gifts. The households appear to use these resources mainly to purchase essential products and to pay wages, expenses otherwise ensured by the sale of harvests, or another activity such as trading or livestock breeding.

Transferring funds does not only express the desire to participate in the household’s income, in solidarity or in view to maintain strong ties with their village, but also to offset the loss of their labour. The parents expect to receive this money, essentially to run the farm and ensure the household’s survival. Such recruitment at least helps to replace the labour of departed children, thus the household can envisage becoming an employer. The availability of money is therefore central in the scheme of hiring labour, and it can be linked to the number of children. The contribution of children to the household’s overall income must be viewed before and after their departure. More generally, this issue brings to light the issue of the economic profit that households generate from their children.

Income Security

In the households with migrant children, a higher wage in the place of destination is not a *sine qua none* condition for departure. The declarations made did not reveal a calculation of the difference between the wage in the region of destination and that obtained locally, though leaving for a town provides the migrant with long term income security, even if they worked regularly as a wage-earner in the area beforehand. As has been seen, migration –apart from placing children– is not negotiated but perceived as a solution to a situation of poverty, mentioned by the villagers themselves, even if the income *elsewhere* is much lower than that earned locally.

The demand for labour in Ampitatafika increases during the tilling-transplanting season and the tilling-planting season during the lean period, when the households plant off-season crops. Crops other than rice provide additional food and possibly the sale of part of the harvest to compensate the lack of rice and the higher prices demanded for it. An individual can therefore sell his labour during these two periods for a total of two to four months of the year, whereas their financial needs are pressing throughout the year. Confronted by income instability and dependent on farming subject to constraints, households appear to prefer a sustainable salary throughout the year for their children, so they can benefit in turn during hard times[14]. The logic of rural households leads them to prefer lasting and even minimal financial security to the acquisition of occasional sums of money.

Selling Land

Financial Transactions Between Relatives

The literature on land in Madagascar, especially on that of the Highlands, emphasises both the exo-inalienable nature of land for rural populations and its high social value. Land for the rural population is a source of survival and is rarely offered for sale, rent or for sharecropping. However, the increasing frequency of land sales observed in our study area over a five-year period, justifies attention being given to the issue of selling land. The social management of exchanges of arable land reveals new dimensions of socioeconomic life in the rural environment, as much regarding relations between individuals as between individuals and the State.

The strong growth in the number of property transactions since the 2000s, identified[15] from archives made available by a village leader, at first sight mitigates the notion of the inalienability of land often underlined by the population. Its sale and above all the formalisation of "*little papers*"[16] prove that selling is increasingly

[14] Cyclones are frequent in Madagascar.

[15] On the strength of qualitative surveys of 27 individuals, 14 transactions were identified by seeking the seller and purchaser for each transaction. We did not find archives from before this period.

[16] An informal and non-legally binding deed written on paper before the local authorities.

Table 7.7 Evolution of transactions in the village of Masoandro between 2001 and 2005

Years	Number of transactions identified
2001	10
2002	17
2003	25
2004	34
2005	39

Source: archives available from the head of the village of Masoandro (rural commune of Ampitatafika)

accepted socially. Whereas elsewhere, for example in certain regions of the Ivory Coast, a downwards trend in the number of land transactions has been observed among rural farmers to conserve the family land heritage following a period of heavy selling (Chauveau 1995). In the case of the rural commune of Ampitatafika, we are currently witnessing the reverse: despite the scarcity of land, the number of commercial transactions has increased considerably (Table 7.7).

One may ask whether this increase reflects a real progression of the market or that of recourse to written documents. Fieldwork showed that these figures expressed a real increase of sales. By taking a Malthusian viewpoint, it can be said, *a priori*, that the rapid increase of the population in this village within a limited area of arable farmland has led to an increase in the number of transactions. The reduction of available land per household and per individual appears to drive certain individuals to increase their land capital, notably through purchase, to ensure the provision of sufficient food for their household. Thus regulation mechanisms linked to access to land have become apparent in this rural area in the form of land transactions. In Boserupian terms (Boserup 1970), the frequency of land transactions may indicate the development of commercial land transactions between actors, along with their associated rationales, socioeconomic responses and institutional innovations. Thus the growth of the population may underpin the development of this market, leading the actors to find arrangements over transactions and also to secure property rights.

The transmission of the *land of one's ancestors* to one's children and even grandchildren is a social value still entrenched in the population in which parents are conscious of a duty. The transfer of part of this land, especially to foreigners, is seen as a "betrayal" of one's ancestors. The villagers declared, "*For a long time, land could not be sold*". The disparity we observed in terms of supply and demand on the one hand, and the desire to hold on to land on the other, favours and justifies the practice of peasants. They choose a purchaser for the land, thus it is the vendors who contact the purchasers. A peasant cannot tolerate seeing his land abandoned and poorly exploited as it would be morally difficult to accept.

These transactions do not obey the rule of the highest bidder. The sale of part of the land, although owned individually, is a family question, as underlined by this often recurrent declaration in interviews: "*If one wants to sell a plot, it's better to speak within the family, meaning myself, my wife and my children. Afterwards, we*

speak with the wider family. The sale can be made if the whole family agrees. The money obtained from the sale must be used for a good reason, it cannot be wasted". The objective of these steps in the procedure is to (i) inform and involve the members of the family group in the decision; (ii) justify the sale; (iii) and find a buyer as close to the family as possible.

Nonetheless, the inalienable nature of land does not withstand the situations of stress prevailing in rural life, one of which is the situation of chronic poverty in the region of our study. Although social conventions rule that the close relatives of the individual wishing to sell are informed by the offer of sale so that one of them can purchase the plot, the realisation of such a transaction is not always possible[17]. The response of the villagers is formal, whatever the generation, consultation at family level is indispensable. This consultation is not a formality, but a request for the family's authorisation (especially that of the father, the owner and donator), before selling the land. If a member of the family cannot "take over" the plot, the offer can then be made to *foreigners*.

Thus the members of the family will have shared the "moral cost" of the separation of the plot, often owned for generations. For all this, the financial value received must be used "for the right ends", thereby making the contract of sale morally acceptable and economically useful, and even profitable. The social dimension of land quickly becomes visible, and in these areas the question of social links often leads to the analysis of family links.

Commercial Transactions: A Question of Opportunities and Constraints

Apart from succession from parents, individuals living in the area can most usually obtain arable land by purchasing it, though the supply does not match the strength of demand. In most cases, the peasants have been obliged to sell a plot as a last resort to satisfy a pressing financial need, notably during the lean season: to buy food or pay hospitalisation costs for a sick child. It is noteworthy that we did not observe any sale due to family events or ceremonies such as marriage or exhumation, for which households can anticipate the expense.

For the local population, land constitutes a form of saving and old-age insurance in the absence of a social security or credit system. The fear of expropriation hardly encourages farmers to privilege renting land out, for example, to obtain cash. One of the major challenges of securing official recognition of land rights is to ensure a stable environment for land management, enabling the development of different means of obtaining farming rights. Some owners decide to sell their plots following a migration. For the migrants, the sale of land can also be motivated by the fear of

[17] In certain cases, the preference to sell within the family circle can be interpreted as a kind of disguised financial loan, with the vendor hoping to buy back the land if his financial situation improves.

usurpation in the absence of local social links to *watch over it*. In addition, confronted by the lack of direct proof of ownership, individuals prefer to sell their shares of land instead of leaving them to their brothers to farm them "free of charge".

Some transactions obey a logic of quality. Climatic risks lead peasants to develop farm management based on the distribution of crops on plots distant from each other (on the plain and on *tanety*) to minimise the risk of flooding, which for many peasants affects the quantities of crops harvested. However, the limited surfaces dedicated to rice and the lack of means of indirect exploitation undermine this strategy and drive peasants owning floodable and thus unprofitable land to sell it and replace it with safer land. Therefore the choice of land to be sold may concern a deeded plot in order to: (i) sell it at a higher price or convince the buyer; (ii) maximise security when the purchaser is a very close relative; or (iii) when the deeded plot is larger and/or more fertile, thus more expensive.

The young villagers also participate in financial transactions. It is they who are most affected by the accelerated decrease of arable land surfaces, which reinforces their desire to own land. Some of them consider non farming activities such as commerce, locally or as migrants, to break away from farming whose proceeds are less and less sufficient. The need for start-up funds in this rural environment drives them to sell a plot or a group of inherited plots to finance a project. However, it is not uncommon to find behaviour to the contrary in the same age group: some young people become wage-earners in order to devote their savings to buy land. The approach taken by vendors to ensure their security is as much social as institutional: close relatives are consulted to share the moral responsibility of the sale and avoid challenges made to the contract. Also, the sale is declared to the highest village authorities.

Conclusion

The descendants of Malagasy Highland peasants allow the latter to fulfil their traditional ancestral role, that of bequeathing their land to their children. The will, or at least the desire, exists to reduce the number of mouths to feed. But besides this economic argument, undoubtedly valid for all poor communities, there is a will to reduce the number of heirs, since parents consider their children as heirs who are entitled to receive the land left by their ancestors. This is the ancestral-spatial context now threatened by the effect of the ever smaller size of the plots handed down. The two main components of the social system are affected by this decomposition: land, and thus the reduction of available surface areas, and the population through emigration, since it is the heirs that leave. Fertility must be seen in the light of this movement. Here, it is not a question of a fall in fertility, which is the case of other populations, notably those of so-called developed countries undergoing a process of cultural change and modernisation, but a fall in the size of the progeny that reflects that of the inheritance. We term this aspect *inheritance-related fertility*.

Inheritance-Related Fertility

For the rural populations of the Highlands, the village in which an individual's ancestors are buried is the centre of the kinship system. The geographic background of kinship is essential: "Expressed otherwise, ideas of ancestors and ancestrality, as well as the individual and collective identity they produce, have a dual dimension whatever the typology of lineage of the society concerned: a spatial or territorial dimension and a genealogical dimension. These two dimensions combine in the person of the original ancestor and/or in the tomb in which he is buried" (Ottino 1998: 51). As mentioned previously, the heads of households nonetheless want a minimum number of children, since that is the goal of their marriage. Having descendants is important, individually and socially: it ensures the continuity of the lineage and that of the succession of land.

The mindset of the villagers would have it that immediately less land is available, the response is migration and they do not wish to have lots of children they cannot feed and to whom they cannot hand down enough land when they become adults. This breakdown of the socio-land pattern has been caused by the advent of non-rice growing villagers and emigration, calling into question the very foundation of the villagers' social system. The individuals of previous generations were linked together by a common ancestor, the founding father of the village, and land. Now, the villagers are witnessing the fragmentation and reduction of surface areas due to fast demographic growth and difficult rural economic conditions. As seen above, their responses are demographic and socioeconomic.

The children are initially expected to carry out complementary farm-domestic tasks, then to cultivate the family land as members of the household, then independently. In addition to the cost/benefit relationship represented by the child for their parents until adulthood, they become an heir as soon as they marry, generally at a young age. The rationality of the peasant consists in considering his children as heirs, thus his fertility is inheritance-related. The reduction of the capacities of succession appears to follow the same trend as the fall in fertility. Tradition would have it that the peasant waits to be buried in the family tomb beside his ancestors and in turn becomes an ancestor whose progeny will recall the memory and conserve the good he handed down to them.

Even when alive, the peasant upholds ancestral traditions by donating his land to his children, provided he can pay for the *famadihana* (exhumation of bodies). Here, the villagers seek a minimum amount of continuity, whether they are large or small landowners. Consequently, all the peasants we met wanted at least one of their children to stay in the village where the family land and tomb are situated. Fertility is an element that should be placed and analysed in this context of identity composed of land and ancestral reference. The fact that the children are perceived as heirs is certainly not specific to Malagasy society, but the specificity of the notion of heritage within the island's populations is that cultural heritage underlies land heritage. The Merina are rice growers, so not being a rice grower due to a lack of land saps the peasant's cultural identity, his presence in the village and his socioeconomic

status in his community. These are the reasons why the sale of land, which should go to the children and their descendants, is done as a last resort and under pressure by the sellers.

The Departure of Heirs

Children's mobility depends on the opportunities, social links and socioeconomic relations that exist with the exterior. The choice to leave appears to be a personal choice made by the children, as we saw with the choice of marriage, and their independence from the parents' home when entering into marriage and obtaining a plot of land. This choice nonetheless requires the parents' blessing before a project to migrate can start. Earning wages from farming is not seen as a lasting solution to the lack of land. At the individual level, entry into adult life leads children to accustom themselves to earning a wage as a farm labourer, encouraging them to consider a more durable activity that they esteem achievable *elsewhere*.

Confronted by the fragmentation of family land in a context of poverty, a child appears to be more useful in the eyes of their parents if they emigrate, as this reduces pressure on the land. Peasant thinking regarding this point is explicit: "*We can't all stay here*". Migration plays the role that fertility could have played through a reduction in the number of children and thus the number of mouths to feed and the number of heirs, especially since the need for labour hardly appears to be satisfied by fertility. The children can leave; those who stay *get by*. To the thinking of the households, the short-term goal of departures is that each child finds an income to overcome the situation of poverty, since the household is unable to provide sufficient plots for each child. This solution permits the household to maintain the same social fabric (in number of ties), an income for each member and avoid selling its land. It also permits sharing the land and food between fewer individuals. At base, emigration is not a behaviour that runs counter to ancestrality if it permits its perpetuation through the funds sent back by those heirs that have migrated, thus the exploitation of the land left by their ancestors. Nevertheless, the departure of all the children undoubtedly runs counter to the village mindset based on ancestral culture and land resources. Also, parents fear not being able to participate financially in their family obligations to the village for certain "landless" children. As emphasised previously, each member is less and less responsible for the survival of the group, but their contribution, even symbolic, is expected, as are the relations they maintain with the group remaining in the village. The desire in the village to have at least one child is not only related to the hope of ensuring security during old-age, there is a deep-laying objective to perpetuate the family history in the village and hand down the land of one's ancestors to future generations.

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Chapter 8
Female Genital Mutilations and Population Policy in Djibouti

Véronique Petit

The aim of this chapter is to examine the relations between sociodemographic behaviours and population policies by analysing the implementation of a population programme intended to eradicate female genital mutilations (FGM) in Djibouti. The positioning of the institutional actors involved and their perceptions of the population concerned in this process of social change will be analysed. They will be contrasted with the behaviours and attitudes of the population through the use of original data to identify the divergences existing between these two types of actors. Thus the purpose is to understand the specific dynamics composing the ensemble of social expectations and political responses, and the way in which the production of indicators can lead to a breakthrough in the situation. The analyses presented here are based on the results of a multidisciplinary survey performed between 2005 and 2008, funded by UNFPA and UNICEF. They comprised two successive phases: a demographic measure of FGM employing an innovative methodology to which we will return later in this chapter, and an anthropo-sociological survey of the population to analyse the decision processes linked to the practice of FGM. Women and men with different sociological profiles were questioned in all the districts of the capital of Djibouti, knowing that this city groups almost three quarters of the country's population. These two methodologies were completed by secondary analyses of the PAPFAM sociodemographic survey (Belbéoch et al. 2008).

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Population Policies: A Tool of Governementality

Political decision-makers can call on a tool, population policies, to orient the practices of individuals towards new societal models (Foucault 2009). Jacques Vallin defined a population policy as a "political action aimed at modifying the course of a population's evolution and which can assume the consequences. Too often limited only to measures (limitative or incentive) taken to influence fertility, the concept can however be extended very widely or, on the contrary, be very restrictive" (Vallin 2011). In the perspective chosen by us, the goal is not to limit "the scope of population policies to actions aimed at changing the demographic parameters (size, growth, structure)" of a population, but to also include policies that produce a new normative scope with the goal of obtaining the regulation, adaptation and production of a new social individual through the emergence of new categories ("a good patient", a "good migrant", a "good citizen"). The implementation of population policies is more or less coercive according to the ideologies and traditions specific to each society.

In the case of developing countries[1] population policies are frequently defined as a response to international pressure. Indeed, whereas by definition policies are defined at national level, they are also influenced by the external context when taking into account increasing integration in a globalised world. In return for the funds they make available, the international agencies, cooperation systems and NGOs that sponsor development seek to either reorient the philosophy of the policy being formulated, or to decide on a concrete dimension of its application[2].

The adoption of a population policy is a powerful indicator of the tensions and ambiguities that drive all societies and governments. The latter were led to ratifying conventions and protocols in order to signal their entry into modernity and a certain form of respectability in the eyes of the international community. These commitments henceforth limited their action and led them to adopt a new rhetoric. The State as contractor must adjust its legislative framework to transcribe the adoption of new values and the promotion of new behaviours into law. Population policies in the area of health, and in the more limited area of reproductive health[3], and education,

[1] The so-called developed countries are also affected by their alignment with increasingly international norms.

[2] For example, during the last mandates of the Republican administrations of the United States, the latter chose not to finance family planning programmes including measures to legalise abortion, so as not to upset the conservative religious electorate. In this extension, the choice and order of the words of the slogan "*abstinence, being faithful, condom use*" in the information campaigns of the combat against HIV/AIDS were also determined by the influence of religious values (being faithful and abstinence). If the primary goal had been efficiency, then the condom would have been presented as the first means of protection against the virus, as the notions of abstinence and being faithful are relative, as shown by certain anthropological and historic works in other contexts.

[3] Reproductive health (a concept defined in 1994 at the Cairo Conference) covers the following areas: general well-being, meaning physical, mental and social, for everything concerning the reproductive organs, their functions and functioning. Reproductive health is broken down into five sections: 1/ family planning, contraception; 2/ the combat against HIV/AIDS and sexually trans-

therefore frequently introduce new rights for the entire population (universal access to education, generalised vaccinations), or for "target populations" (specific categories such as children, minors, women, adolescents, men). However, there is nothing mechanical about the production of this new normative framework, it is not enough to change the law for it to work, it must be driven by strong political will, symbolic acts and concrete measures. The divide between intention and implementation can be observed via the double-speak sometimes expressed by governments: an initial discourse made for the outside world, in which they commit themselves to promote "modern" social standards in exchange for financial aid, and a more conciliatory second discourse addressed to national conservative forces reluctant to see their authority called into question.

International pressure on governments is exerted subtly through systematic comparisons of countries made on the basis of rankings drawn up by international institutions (UNDP, WHO, IMF, World Bank, etc.) at regional level (Africa) and international level. On the strength of the indicators chosen, these rankings distinguish governments that succeed positively (for example, Thailand in the combat against HIV/AIDS), whereas they indicate the efforts to be made in such and such a sector by other countries. Population policies are therefore defined in relation to objectives set at international level (embodied by the system and agencies of the United Nations), such as the Millennium Development Goals. In the example described here, the policy aimed at eliminating all forms of FGM was designed in concert by national institutions (Ministry of Health, Ministry for the Promotion of Women, Ministry of Religious Affairs) and the United Nations' agencies concerned (UNFPA, UNICEF). For all that, this does not imply that these institutions promote exactly the same values, that they uphold them with the same energy or that they put them to use in the same way. Specific positions can, for example, be observed within what may appear *a priori* to be a single reference framework (the United Nations system or the government) and between ministries. These institutions are subject to balances of power and specific challenges, and not all of them share the same interest in formulating this population policy. Consequently, they do not develop the same strategies.

The Context of Djibouti

Before going to the heart of the subject, we provide a brief history of this State. Djibouti is situated on the west coast of the Red Sea. This region came under French rule in 1862. The country is home to different ethnic groups. A long process of settlement and urbanisation began and continued during the twentieth century. The colonial power developed port activities and built a railway line linking Djibouti

mitted diseases (STD); 3/ the combat against female genital mutilations; 4/ the combat against infant and maternal mortality; 5/ the combat against sterility. The control of fertility is encompassed in a wider approach including maternal and infant health.

with Addis-Ababa in Ethiopia. Following the visit by General de Gaulle and the referendum of 1967, Djibouti became the French Overseas Territories of the Afars and the Issas, and became independent in 1977. The first legislative elections were held in 1981, and a multiparty system was instituted in 1992. A period of inter-ethnic conflict (1991–1998) was settled in 1999 by presidential elections that brought Ismael Omar Guelleh to power and he was re-elected later on. Djibouti is an Islamic Republic whose official religion is Sunni Islam.

The lack of a recent census at the time of our survey led to varying estimations of the population, ranging from 500,000 to 804,000 people in 2005[4]. The question of census is not without importance, since the denominator of a certain number of sociodemographic and economic indicators depends on the figures obtained and it is on these indicators that the aid and facilities granted to Djibouti rely. Immigration contributes to half the country's demographic dynamics. Indeed, Djibouti receives a large number of refugees from other countries in the region (Somalia, Ethiopia, Eritrea, Yemen).

This micro State generates its income from gas, gold, copper, iron and salt. Its geostrategic position and political stability in the troubled region of the Horn of Africa also provide it with several sources of income: France and the United States pay it significant sums in lease fees in return for the installation of a military base, the modernisation of the port (construction of an oil terminal to transport oil from Chad) and the creation of a free zone to stimulate trade, and banks have set up branches there to stimulate their financial activities in the region. The service sector represents about three quarters of its GNP. The State is the country's leading employer. In 2005, Djibouti was ranked 148th out of 177 countries by UNDP according to the HDI, and is characterised by insufficient levels of literacy, education and health.

Since his election, Ismael Omar Guelleh has sought to eliminate ethnic specificities and claims in preference for the construction of a Djiboutian national identity. From the statistical standpoint this elimination has resulted in the absence of communication of data pertaining to ethnic belonging. Regarding the issue of FGM, it is impossible to obtain statistical data according to this criterion, although ethnographic field data highlight different practices according to ethnic group[5].

Social Norms and Statistical Norms

FGM is a norm in Djiboutian society in addition to the different practices that this generic term covers. According to the WHO it covers all operations including the partial or total ablation of the external female genital organs or any other lesion of

[4] Sources: http://www.dj.undp.org/abtdj.html consulted on 8 April 2010. http://www.unicef.org/french/infobycountry/djibouti_statistics.html consulted on 8 April 2010. In 2008, the UNDP put forward 620,000 inhabitants while UNICEF put the number at 849,000.

[5] All mentions of ethnicity had to be deleted in the reports submitted to the institutions that funded this survey. Owing to the civil unrest marking its recent history, the Republic of Djibouti seeks to build a "national identity" and is therefore opposed to bringing ethnic specificities to light.

the female genital organs practiced for non medical purposes[6]. The definition of a norm infers a social consensus that has been forged over time, but taken from a more modern perspective it also infers the establishment of a statistical frequency. We will now examine the reality of this issue.

Social Norms: Generalised and Interiorised Practices

FGMs are a custom whose practice has been passed on from generation to generation in the different groups that currently compose the population of Djibouti. Belonging to the sociocultural heritage in which traditions and religion combine and are part of the socialisation process, FGMs are deeply internalised by women and men. Mothers are responsible for raising their daughters as well as possible by preparing them for the future tasks they will have to perform in their role as wife. The family's honour and reputation are at stake in this socialisation process in which FGMs represent a step. Excision and infibulation allow families to have daughters "worthy" of entering into a matrimonial transaction: "Our daughters can never be married if they have not been excised" (W15)[7]. By virtue of this, FGMs are a family matter: "It's a lump of meat that had to be removed. It had to be done quickly before I grew, to find … you know what our parents say? To find a 'good husband'! To find a good husband, to be accepted, be a good mother, a good wife" (W2). They contribute to changing little girls into young women eligible for the reproduction of the social system and for upholding social order. FGMs are therefore a primary condition for marriage and fertility, the latter being conceivable and legitimate only within marriage. "The imposition of procreation ranges from the interiorisation of norms by education to coercion, and from the surveillance of physiological events to the 'symbolic and also physical marking (mutilation) of women as reproductive bodies" (Bonte and Izard 2002: 663). From this angle, marking bodies signals "a change in an individual's state or status (birth, puberty, initiation, marriage, death). Body marking allows an entire community and its individual members to express the specificity of its collective and individual identity" (Bonte and Izard 2002: 63). Whatever their opinion regarding the perpetuation of FGMs, the men and women questioned spontaneously asserted that an "uncut" woman will have problems in finding a husband and thus obtaining the status of married woman, the only respectable social position a woman can hold.

Young girls must enter marriage as virgins to "be opened" by their husband during the wedding night. A young girl who has not been infibulated is immediately suspected of having had prenuptial sexual relations: "It's shameful in our epoch to find a girl who hasn't been sewn up. Because the people of our epoch, especially the

[6] It is noteworthy that this definition runs counter to the traditional idea according to which circumcision may have a prophylactic value.

[7] To ensure the anonymity of the people questioned during the ethnological survey, they are identified only by a W (woman) or M (man) and a number in this chapter.

men, when this girl marries and, if she isn't sewn, she'll be considered a whore…all the girls have to be sewn and infibulated so that no one can say 'she's a whore'" (W5). This representation is confirmed by the men: "The story they tell about the girls is that they become easy women if they aren't excised," (M3). FGMs are supposed to prevent women from having sexual relations before and outside marriage by controlling their sexuality, considered as "overwhelming" or subject to "impulses". Besides guaranteeing filiation by imposing virginity, the corollary function of FGMs is to dampen female desire, upheld as dangerous if not controlled or surveyed by the elders, as it disturbs the social order[8].

FGMs also fulfil an aesthetic role by making the "genitalia smooth" according to an expression recurring in the interviews. Smooth genitalia are described as a "clean, beautiful and pure" organ. Associated with this aesthetisation is a prophylactic dimension. Contrary to a "hanging organ", smooth genitalia protect against sexually transmissible diseases. Women and men associate non excision genitalia with the terms "stain", "impurity", "dirt", "disease" and "shame". Ugliness, dirt and impurity are confounded in the imagination: "This clitoris isn't healthy, it's dirty, that's how our grandmothers saw things. They don't see what they did was bad. They thought the act of excising girls was something good" (W3); "The men were persuaded that cutting a girl was in fact an act of cleansing her!" (W2).

Lastly, men and women refer spontaneously to Islam or customs when speaking of FGMs. These two registers of justification more or less overlap according to the persons questioned. Many Djiboutians think that infibulation and excision are ordained by Islam: "Everybody thinks that it is written in the Koran" (W14). Two hadiths are regularly cited to explain the Prophet's position on this issue. He was supposed to have asserted that excision "is to be credited to the merit of girls" and, seeing a women performing one, he added: "When performing a excision, take care to remove everything. The wife will stay fulfilled and the husband will obtain more pleasure". It should be noted here that a revealing shift has occurred: whereas the most widespread practice for generations of adult women has been infibulation, the religious reference concerns excision. Men and women declare that they are acting in the name of religion by invoking their desire to be considered "true believers": "It's something that will render them …that won't do them any harm, to cut a little, and it even relieves us since we carry out a mission linked to the Koran" (M5). This injunction is all the more effective as it is propagated by the imams whose legitimacy no one questions: "I did it because we are people who know our religion. We were taught that it was the thing to do" (W5).

Locally, the perpetuation of practices recommended by Islam and inscribed within an ancestral heritage seems normal, thus a decision no one doubts. Excision and infibulation were practices widely shared and justified in discourses at the time this research was performed (2005–2008). The members of the community (women, men, heads of family, grandmothers) rarely said they wanted to spare their daugh-

[8] According to analyses, mutilations civilise the female body by transforming it, bringing closer to that of men by removing its share of animality. See: Bourdieu, P. (1998). *La domination masculine*. Paris: Edition du Seuil. Héritier, F. (2002). *Masculin/féminin*. Paris: Edition Odile Jacob.

ters. Although the practice of FGM is contested in asides, confidences, and private discussions, public dissensions remain marginal. We will return to this aspect further on. The refusal to impose excision or infibulation on one's child is considered as a major transgression. Whatever the community to which they belonged, the Djiboutians questioned insisted on the weight of conformism and the importance attached to appearances. They recalled that stirring community dissension in a Sunni Islamic republic is viewed badly.

The Sunnis, who are designated in Arabic as being the people of the Sunnah and the community (Ahl al-Sunnah Wa'l-Jama'ah), are very attached to the idea of consensus and compromise. This attitude bestows Sunnism with "dogmatic flexibility and political realism" (Arnaldez 1992: 830–832) and perhaps explains the attitude of the imams of Djibouti who now preach the abandon of FGM. Although compromise is an attitude that can be interpreted positively in an outlook of change, it is nonetheless advisable not to take this interpretation too far as its corollary is very strong pressure to avoid deep disagreement (*ikhtilafat*) within the community. *Ikhtilafat* is considered to be a "radical evil" that should be fought: "it is the duty of the people of the Sunnah to avoid and steer away (…) all those who seek to sow dissension in the community" (Ibn Batta, cited par Arnaldez 1992; Gardet 1982). Social control comprises "all the material and symbolic resources available to a society to ensure that the behaviour of its members conforms to a set of prescribed and sanctioned rules and principles" (Boudon and Bourricaud 1982: 112–113). To be truly efficient, social control must be both external and internal. Durkheim insisted, for example, that moral education is the most subtle and efficient "constraint" that society has over its members. Freud, however, considered that the identification of its members with a shared model was the cement that binds the symbolic unity of institutions. Apart from the women and men publicly committed to combating FGM, most individual fear being suspected of evading this custom, thus becoming the object of opprobrium and rumours in the community. Although distinction and even ostentation in terms of economic success are sought after, discretion is the rule regarding morals. In a society still strongly influenced by mutual acquaintance, what is important is to be reputable and avoid being excluded from links of sociability and solidarity.

Statistical Norm and Political Challenge

This social control is also highlighted by the statistics. At the time of the survey, 98% of women aged from 15 to 49 years old were concerned by FGM according to the PAPFAM survey (DISED 2002). These results place Djibouti in the category of African States (Egypt, Sudan, Ethiopia, Eritrea, Somalia) where this practice is most prevalent (Andro and Lesclingand 2007). Furthermore, three quarters of the women questioned declared that they had been infibulated (74.9% in urban areas, 81.3% in rural ones) and thus concerned by the most brutal form of FGM (Table 8.1).

In addition to the question of measuring the frequency of FGMs is that of their consequences on public health. Although their effects on mortality and morbidity

Table 8.1 Prevalence of FGM according to the woman's type, age and place of residence

	Age	None	Type 1 Sunnah	Type 2 Excision	Type 3 Infibulation	N
Djibouti	15–19	0.0	20.0	15.0	65.0	40
	20–24	3.2	18.6	19.1	59.0	188
	25–29	2.0	12.3	18.5	66.7	351
	30–34	2.9	8.0	12.5	76.5	311
	35–39	1.9	8.5	12.0	77.5	316
	40–44	2.7	6.1	14.1	76.8	263
	45–49	1.3	9.4	11.3	78.1	160
	15–49	2.3	10.4	14.7	72.5	1629
Districts	15–19	0.0	6.8	18.2	72.7	44
	20–24	1.6	4.7	32.0	61.7	128
	25–29	0.8	2.5	20.6	75.6	238
	30–34	0.4	4.0	21.0	74.6	252
	35–39	1.5	1.0	20.6	76.5	204
	40–44	0.6	3.1	19.8	75.3	162
	45–49	0.0	0.0	5.6	94.4	72
	15–49	0.8	2.9	20.8	75.0	1100

Source: Belbéoch (2006), table 22, p.14 (DISED, PAPFEM survey 2002).

are difficult to determine precisely, the list of the effects of FGMs on the reproductive health of women fuels the image of practices belonging to another age and thus unworthy of a modern State. The WHO has made a distinction between the immediate complications and the long-term effects of FGMs. The former involve: violent pain, shock, haemorrhage, tetanus and septicaemia, urine retention, genital ulceration and lesions of the surrounding tissue. The long terms complications include recurrent infections of the bladder and urethra, cysts, sterility, later surgical operations to permit sexual intercourse and childbirth, and complications during childbirth.

Measuring the morbid effects of FGMs requires political will to change the statistical procedure (they must be identified as being the cause of mortality) and how doctors are trained (they must be capable of distinguishing between the different types of FGM). Announcing that infibulation is a cause of mortality and morbidity means taking a stance in the face of a practice up to now considered normal with respect to local history. Thus dual observation of the frequency and intensity of FGMs goes towards changing this "woman's affair", to use the common expression, into a "population problem" that has to be solved definitively by a population policy aimed at eradicating it. The measurement of FGMs thus becomes a methodological challenge as much as a political one. The formulation of statistical indicators emphasises the place given by the political authorities to what has become a question of society with respect to new issues (health, women's and children's rights, the place of civil society) progressively raised in Djiboutian society by various actors.

The Emergence of the Combat Against FGM: The Plurality of Actors and Discourses

The social consensus presented above is in fact more fragile than it would appear, as new discourses have emerged gradually since the 1990s. Who are the actors involved in this combat, what discourses do they hold and how do they target the object of their combat? The initiative stems from the pioneering women belonging to the association Union Nationale des Femmes Djiboutiennes (UNFD). They were the first to demand the abandon of a custom that leaves both physical and mental traumas, independently of any international pressure. More often than not they have attended university studies in France and come from privileged social backgrounds. This protest movement triggered the institutionalisation of the issue of FGMs in Djibouti. However, the UNFD is not a direct protagonist in the construction of the national policy to combat FGMs. It is a pressure group whose members are close to the women managers of the Ministry of Health and Promotion of Women. Despite the founding role played by the UNFD, the action of these pioneering women has not be acknowledged and employed as a force of conviction in awareness strategies. Their actions have neither been built upon, nor given as an example.

The National Committee to Combat Harmful Practices: Tradition Versus Modernity

In 1984, the government gave official recognition to this protest by setting up the National Committee to Combat Harmful Practices (CNLPN). President Ismael Omar Guelleh gave his public support to the combat against FGMs, backed symbolically by his wife in the media. For all that, founding the CNLPN did not mean that the government had committed itself to speedy societal reform. The expression "harmful practices" significantly euphemised the object targeted since excision and infibulation were not named explicitly, thus everyone could associate the term "harmful" with the practices that came to mind. This fog continued in 1995, when the government modified the civil code by introducing article 333 which treated FGMs as an aggression against women and therefore liable to punishment by law. The acronym FGM used in this article is not explained in full, the practices the government intends to combat are not designated precisely as such. Whether excision, infibulation, or the Sunnah, no one can tell what practices are targeted. Likewise, the terms mutilation and aggression are not defined. No sentence has been given up to now. This law is inapplicable from the sociological standpoint. Indeed, it is unthinkable that a woman would bring charges against another woman of her family, a woman of her blood or of the lineage of her husband, for having been excised or infibulated. It would bring dishonour to the family and lead to disputes. Thus the commitment of the political authorities in this case is limited.

Article 333 nonetheless amounts to a symbolic breakthrough in Djibouti, since it substitutes an ancient social norm with a legal norm upheld by a new framework of legitimacy. Due to the heavy media coverage given to the text, the entire population now knows that the forced mutilation of a child is a breach of the law. By passing this law the government changed the question of FGMs; they ceased to be only an issue concerning women and families to become an object of social regulation. The underlying question that remains is to know which authority has most legitimacy in the eyes of women and men: the government, religious institutions or tradition? What is the level of injunction necessary for them to modify their behaviours in an increasingly competitive framework, and where, from now on, can the line be drawn clearly between tradition and modernity?

Seen from the angle of the Djiboutian leaders, this decision belongs to the process intended to modernise the country. All the ministries concerned (Health, Promotion of Women, Religious Affairs) employ the terminology of the CNLPN ("harmful practices"). The purpose of this committee is to develop activities to spread awareness among the different categories of actors liable to change public opinion (women practicing excision, the political class, religious leaders) and in particular women as they are the target population. To this end, a national programme to combat FGM was launched in 1998. It aimed at excision and infibulation by name. In 1999, the Ministry of Health's national risk-free maternity programme included a specific project to combat harmful practices.

The United Nations Agencies

Let us now see how the United Nations agencies concerned participate in this debate. UNICEF uses the acronym "E/FGM", i.e. "Excision/Female Genital Mutilations". The fact of placing excision first and distinguishing genital mutilations is quite ambiguous as it leads to thinking that excision if not actually a type of FGM or that it should be treated separately. What is the reason behind the choice of this designation? UNICEF's doctrine is that social change must be built in agreement with the communities concerned and by respecting their cultural specificities. It is conceptualised more as a process than as a radical change; innovations in social practices must be compatible with the value system to be acceptable to populations. From this perspective, the terms of change must be negotiated and be subject to a "social convention" (Digest Innocenti 2005). This is why, confronted by the aggression represented by infibulation and with concern given to protecting young girls, UNICEF considers circumcision to be a compromise solution acceptable for communities. The Djiboutian population was given the right to pursue excision as an ancestral practice considered essential because of its structural effect on social organisation, while UNICEF could claim to have contributed towards the elimination of infibulation as a cause of mortality and morbidity. The change from infibulation to excision is not seen as a finality, but as a preliminary step to the gradual shift from excision to a lighter form and then the eradication of the practice.

UNICEF's position is debatable from the scientific and ethical viewpoint. It raises the question of the identification of the actors behind this social convention in the community concerned. Put more clearly, what is the place reserved for women in this negotiation process given that they are those most concerned? In our view, the semantic choice –using the word convention- is based on the anthropological illusion which sees communities as homogenous social units, a mere sum of individuals all in step with each other. This vision blurs social hierarchies, power relations, internal conflicts, and maintains unequal access to the knowledge and information inherent to any social construction. The functioning of a community cannot be likened to democratic functioning.

UNFPA, the second United Nations agency involved in this process of formulating a policy to combat FGM, holds a completely discourse. It uses the acronym "FGM" without distinguishing between the types of mutilation. This agency, whose slogan is "empowering women" and whose aim is to defend women's rights relating to health and reproduction, adopts a much more radical stance than that of UNICEF. It supports the idea of a national strategy to eradicate all mutilations which it sees as reprehensible. This maximalist position does not mean that UNFPA lacks political acumen, but that this issue is central in its scope of action. At the time, UNFPA's programme manager was a Djiboutian woman highly aware of the stakes relating to the sociopolitical context and the situation of women in the country. It was she that instigated this research and the results were to provide her with valuable arguments in discussions with her partners.

In the 1990s and 2000s the Djiboutian government ratified a number of international agreements on women's and children's rights, thereby adhering to the universalist discourse of the United Nations' agencies. It progressively assimilated the arguments of UNICEF and UNFPA, despite several divergences. In particular, in 2005 it ratified the Maputo Protocol which extended women's rights (right to life, dignity, education, physical integrity and security, political economic and social protection and reproductive health). FGMs were henceforth considered as a violation of the rights of girls and women. They reflect deep-seated gender inequality and they represent an extreme form of discrimination against women. Because they are practiced on minors, they represent a violation of children's rights. These practices infringe on rights to health, physical security and integrity, the right of protection against torture and cruel, inhuman and degrading treatment, as well as the right to life, as they have fatal consequences. For UNICEF, communities must become the guarantors of their children's health. In 2004, action based on this new form of argumentation led to setting up advocacy workshops, awareness campaigns and conferences organised and widely publicised in the framework of the Information, Education and Communication Project in favour of eradicating FGMs.

Change and Institutional Reconfiguration Brought About by Measuring

This is the context in which POPINTER performed a survey in 2005 in view to obtaining a new measure of FGM at the request of UNFPA and the Ministry of Health.

Rethinking Research on FGM

Hitherto, the surveys carried out had targeted only women since FGMs were unanimously considered to be a "woman's affair" by society and institutions, and even by researchers working on this issue. They are identified as both victims and actors of the perpetuation of these practices. Besides the general population of women aged from 15–49 years old, the surveys focused on women circumcisers as agents of their continuation. Breaking with the rationale of declaratory surveys of adult women, POPINTER decided to establish a clinical measure of different types of FGM. It was performed by Djiboutian doctors during visits to a sample of primary schools in the districts of the country to examine young girls.

Why opt to perform a *clinical* measure? An effect of over-declaration cannot be excluded in declarative surveys: faced by a male or female investigator from their own society, women find it hard to declare behaviour deemed as deviant, to confess to not being excised or of having avoided this operation for their daughters. The health survey in schools was performed on fifth grade boys and girls within a sample of districts of Djibouti. The examination of genital organs formed part of the medical visit covering classical items of child health monitoring, thus it did appear as a specific aspect in order to avoid the practice from appearing as a problem. The parents had to give their consent and they received free drugs if the child was ill. All the parents and teachers subscribed to this medical examination, expressing at the same time a social demand for preventive medicine at school (Belbéoch 2006). The examination distinguished three types of mutilation: the *sunnah* (incision, clamping, bleeding), excision of the clitoris with partial or total ablation of the labia minora, and infibulation, meaning total excision with stitching.

Unexpected Results

Surprisingly for all the observers, the results of the clinical survey showed that almost a fifth of the girls of the capital, Djibouti, had not been touched (17.7%) and that a shift had occurred from infibulation to excision (Table 8.2). Contrary to what had been declared by previous generations, infibulation was not the type of FGM observed most frequently. The age of the girls appeared to make this change irreversible with respect to the age (before 13 years old) when sunnah or infibulation are normally practiced. This result expresses a change in a population where the norm was infibulation up to quite recently and showed a very rapid evolution in comparison to the PAPFAM survey mentioned previously (Belbéoch 2006: 20).

Abandoning a strongly internalised and socially esteemed practice is not an easy process. Being convinced by arguments in favour of women's health and rights is a necessary though insufficient condition for change. Resistance to pressure from one's family and friends is required to implement the decision. The interviews held during the anthropological survey revealed that the parents who decided to forego

Table 8.2 Prevalence of FGM by type for fifth grade pupils

	Djibouti	Districts	Total
None	17.7	2.9	14.2
Type 1 (sunnah)	8.5	19.4	11.1
Type 2 (excision)	25.5	56.5	32.8
Type 3 (infibulation)	27.7	14.1	24.5
Don't know	0.0	1.2	0.3
Refusal	20.6	5.9	17.1
N	141	170	311
Average age	12.8 years	12.3 years	12.7 years

Source: Belbéoch (2006) Pilot survey 2005–2006, table 30, p.19.

infibulation or any form of FGM underwent phases of prevarication. Certain women said that the girls of their circle asked their mother or aunt to *"cut them"* when they saw that they did fully resemble their classmates. In parallel certain women who had succeeded in protecting their daughters confessed to having doubted the pertinence of their choice as their child grew up since their decision would become irrevocable, although these same women were identified as the leading actors in the combat against FGM… They asked whether they ought not to have their daughter excised before she became too old, as they feared that she would be difficult to marry off and be the subject of hearsay. Life stories revealed that among siblings, not all the daughters had been subjected to the same type of mutilation. These variations illustrate that decisions are taken for each child in a specific context. The commitment of the child's father is a new and decisive element in the choices made by couples. The man, as father and head of the family, can legitimately dictate his point of view. Urbanisation, housing conditions and the rising level of education have contributed to the nuclearisation of families. Young couples have more resources than their forebears to impose their ideal of the family. They seek to impose the rationale of the couple rather than that of the wider family. Financially independent, they can loosen the grip of social constraints more easily.

What appeared to be a significant change at the macro-social level turned out to be a random intimate decisional process at the micro-sociological level. These observations concur with the analysis of change developed by Crozier and Friedberg (1977). According to these two sociologists change is not a new step in social evolution that corresponds to more progress, organisation or rationality, but above all to the transformation of a system of action. The actors must appropriate new rules, new modes of control and social relations. Social interchange as a whole is redrawn. The decline of practicing FGMs is occurring at a time when relations between genders, generations and within couples are undergoing change. Understanding of the meaning and reasoning that the actors confer to their behaviours is therefore essential for the analysis of social change. Parents are henceforth placed in a situation of arbitration regarding the perpetuation of FGMs. Decisions between different directions are never given in a raw state "but are embodied in complex and contingent institutional combinations" (Boudon and Bourricaud 1982: 603). Awareness campaigns, the introduction of legislation banning the practice of FGMs and the com-

munication of survey results in the media progressively change the population's perception of its own society, culture and traditions. What was previously taken for granted is no longer received or transmitted as obvious but questioned in the light of a new context. The ritual significance of FGMs has lost its grip. Paradoxically, in the absence of a norm dictated from above, it is quite possible that the dithering of the authorities in fact gave the freedom necessary to individuals to decide for themselves on how they could compensate for the government's slowness.

A Central Argument in the Debate

The magnitude of the decline in the practice of FGMs was unexpected. None of the institutional actors had considered for a moment that a fifth of young girls who lived under their eyes were free of mutilation. Nearly 18% of the young girls of the capital, which, it should be recalled represents 80% of the national population, had not been subjected to any mutilation. This result sheds light on the divergence between the perceptions of institutional decision-makers and the expectations of the population for which they are responsible. The former (ministers, United Nations agencies, associations) considered that a radical change in the practice of FGM could only be achieved over several generations and thus it could only be managed with circumspection. The weight of tradition and the need to avoid ruffling religious convictions were arguments in favour of political deadlock or at least certain delays.

This vision rooted the population in archaism whereas, far from being a closed and immobile society, which in fact it had never been, it or at least parts of it turned out to be open to debate and new ideas. International migrations, notably those of students and the development of ICTs, led to comparisons with other cultural models. France, which to a great extent had provided secondary and higher education to the Djiboutian establishment, proposed a model of society in which FGMs are forbidden, where excisers are sentenced by courts of law, and where mutilated female genitals can be repaired by surgery. By introducing diversity and difference these images fuelled doubt as to the de facto legitimacy of FGMs.

This result also obliges the more moderate actors to revise their position and align themselves with that taken by UNFPA: i.e. the total abandon of all forms of mutilations. The consensual position of UNICEF is called into question. The pioneering women of UNFD say they bitterly regret having agreed to talk with the religious authorities. According to these women, the fact of accepting the practice of excision and the sunnah in exchange for the abandon of infibulation *"lost them ten years"*. The manager of the UNFPA programme was also taken aback by the results of the social engineering she had initiated. The brochures presenting the results remained many weeks under embargo at the port. Even though UNFPA sponsored this research, it hesitated regarding the use of figures that fully vindicated its choice. Producing figures is fine, but for what purpose?

The new policy implemented henceforth aims at the eradication of all forms of FGM (Ministère de la promotion de la femme 2006). Although the statistical result

has accelerated the elaboration of a new population policy, it has also had consequences on how this measure is monitored in subsequent surveys. Although the Ministry of Health still wishes to monitor the evolution of the practice of FGMs, the mode of measurement is re-implemented less thoroughly: the different types of FGM are no longer taken into account, the only distinction being made from the statistical standpoint being that between girls who have been subjected to an FGM and those who have not. This measure no longer permits observing shifts from one practice to another, only definitive abandons. Although it remains consistent with the new strategy –the abandon of all forms of mutilation- the assumption that the goal of change has been reached has perhaps come too speedily.

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Chapter 9
The Policy of Reducing Provincial Inequalities in New Caledonia

Laure Hadj

The Issue of Inequalities in a Postcolonial Context

New Caledonia is an overseas territory *sui generis* in the South Pacific. It is engaged in a process of decolonisation from France scheduled to end with a referendum for self-determination by 2019. This process was brought about by the deep-seated inequalities present in the population. When New Caledonia became an overseas territory in 1946, the economic inequalities existing between the great wealth amassed during the colonial period (1853–1946) and the poverty of the rest of the population were very marked. This unequal relation changed in the 1960s due to two major events. First, the original population, the Kanak, has remained at the margins of economic development, contrary to the rest of society. Second, the migratory policy directed by the French government has damaged the marked demographic resumption of the Kanak population. In 1974, 78,000 non Kanak lived on the island, i.e. 1.4 times more than the Kanak. The numbers of these two sub-populations had been the same ten years earlier. The ethnic dimension - Kanak versus non Kanak – of the unequal relationship overlies the economic dimension.

These relations of inequality were contested by the Kanak leaders in the 1970s. To rid themselves of the yoke of French domination, they claimed independence under the aegis of the *Front de Libération National Kanak Socialiste* (FLNKS), whereas those who wanted to maintain New Caledonia's status as a French territory gathered behind the banner of the *Rassemblement pour la Calédonie dans la République* (RPCR). During the 1980s, the positions of the two main political parties hardened, resulting in a violent and bloody social climate. Finding a political solution to these conflicts became a social priority for Michel Rocard's government, under President François Mitterrand. His action gave rise to the Matignon-Oudinot Agreement in

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1988, later renewed by the Nouméa Agreement in 1998. These texts were signed by the two leading political parties of New Caledonia and the French government. They set New Caledonia on the road to independence through the organisation of a referendum of self-determination and instituted a "rebalancing" policy. This aimed at creating propitious social and political conditions for the development of a stable economy, by reducing spatial-ethnic inequalities. The government therefore sought to defuse possible social conflicts linked to the future results of the referendum on self-determination. It was thus a policy based on macroeconomic development and one designed to integrate the indigenous population in the market economy and the "common destiny" to be forged (Noumea Agreement 1998).

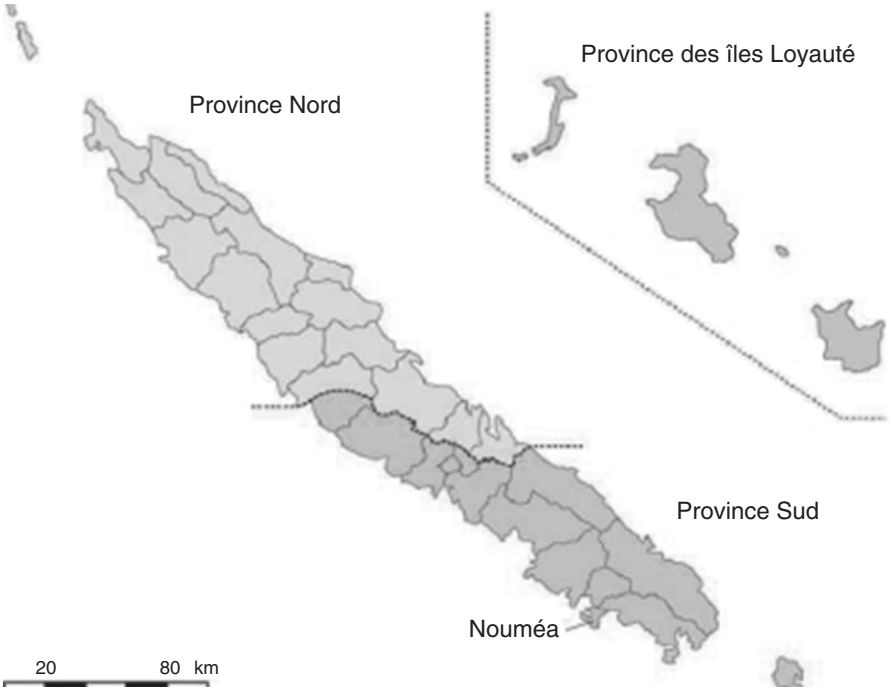
However, considerable inequalities remained in New Caledonia despite the introduction of this rebalancing policy. During the period 1991–2008, the Gini index[1] stagnated at 0.43. By way of comparison, the Gini index of the most egalitarian societies such as Norway and Japan was close to 0.25. How did the most vulnerable households respond to this continuation of inequality? This chapter starts with a description of an institutional instrument designed to implement the rebalancing policy: the division of the territory into provinces. Our evaluation of the rebalancing policy is based on a breakdown of available data on New Caledonians by level of education and standard of living. Two responses of the poorest households are highlighted by an analysis of their resources.

Inequalities and Rebalancing

The Provincial Asset

The signature of the Matignon-Oudinot Agreement in 1988 represented a "negotiated solution" between the two main political parties of New Caledonia and the French government. With the exception of the organisation of the referendum in 1998, the Matignon Agreement did not envisage any other measure of decolonisation. Consensus was based, on the one hand, on the recognition of the inequalities to which the Kanak were subject, as they were qualified as those "most victim of the inequalities resulting from colonisation". This identification was accompanied, by among other things, the establishment of the Agence de Développement de la Culture Kanak (ADCK) responsible for the cultural communication of the "Melanesian character" (archaeological and linguistic heritage) and a professional programme to train future Kanak political leaders ("400 executives" programme, Matignon-Oudinot Agreement 1988). On the other hand, the consensus validated the division of the territory into three provinces. Their boundaries matched the ethnic distribution of the population resulting from the colonial era (Map 9.1). Of the 245,580 New Caledonians censused in 2009, 7% lived on the Loyalty Islands, 18% in the North

[1] The Gini index is a statistical index that compares the inequalities of different distributions of resources. The closer the indicator is to 0, the more egalitarian the distribution.



Map 9.1 The provinces of New Caledonia

and 74% in the South. 97% of the population of the Loyalty Islands declared that they were Kanak. This proportion amounted to 74% in the North Province. The population of the South Province was more heterogeneous[2] though dominated by a community of European origin: 36% versus 27% for the Kanak. The provinces therefore represented a very good proxy of ethnic distribution.

The establishment of provinces can be explained by two facts. The first is that, as territorial authorities, they were endowed with a wide range of competences to introduce rebalancing measures. According to article 20 of the organic law of 19 March 1999, they are competent in all matters not under the direct authority of the State or New Caledonia. By deduction, they are competent for town planning (excluding the master principles of town planning law which comes under the authority of the Congress), low rent housing, construction, maintaining secondary school facilities, and employment through specific programmes and the economic development of the provinces (Riera and Dubois 2006). Each province has a provincial assembly.

[2] Belonging to a community is a specificity of censuses in New Caledonia. An exception to the republican concept of equality, this issue is subject to strict rules applied by the CNIL. Only the breakdown of data at the provincial level is possible. The heterogeneity of the South Province is expressed as follows: 11% Wallis and Futunians, 10% several communities, 7% other communities, 3% Tahitians, 2% Indonesians, 1% ni-Vanuatu, 1% Vietnamese, 1% others and 1% non declared.

The Congress of New Caledonia is composed of seven members of the provincial assembly of the Loyalty Islands, fifteen from the North Province and thirty two from the South Province. The Congress votes the budget and passes the country's laws, specific to New Caledonia. It elects the government which prepares and implements the decisions of Congress. These wide ranging competences aimed at reducing the spatial inequalities that predominated up to the Matignon-Oudinot Agreement. In the period 1987–1989, the average life expectancy of the male population of the South Province was 68.2 years, that is to say six years longer than those of the North and the Loyalty Islands. As for women residing in the South their life expectancy is 75.2 years as opposed to 67.9 years in the other provinces (Rallu and Baudchon 1999). The job market is marked by considerable inequalities. In 1989, the employment rate[3] in the South Province was 57% versus 49% in the North and 34% in the Loyalty Islands. Inequalities are also present in vulnerability to unemployment. In 1989, the unemployment rate of the Kanak reached 28%, followed closely by that of the Wallis-Futunians (21%) versus only 6% for the Europeans. These inequalities on the job market explain the low incomes. In 1991, the average monthly income of a household reached 256,000 FCP. Almost 60% of households do not earn this average wage. The average monthly income of a person in the South Province is 294,000 FCP. This is twice as much as in the North and 2.3 times as much as in the Loyalty Islands (Benoit and Denis 1992; Denis 1992).

Secondly, the provinces are an institutional instrument for sharing political power between the two Caledonian political trends. The North and the Loyalty Islands are controlled by the Independence movement whereas the loyalists control the South. For the leader of the independence movement, Jean-Marie Tjibaou, this distribution permitted the promotion of a "viable independence" (Tjibaou 1996: 234). This form of independence is based on a specific dynamic. First, it requires the establishment of the Kanak "cultural character" (Tjibaou 1996: 14, 131). Jean-Marie Tjibaou played an essential role in rebuilding the Kanak cultural identity by organising the *Mélanésia 2000* festival in 1975 with the financial aid of the State. This event established a cultural inventory making it possible to define the philosophy of the indigenous art of living (dance, singing, craftwork, customs, etc.). The stakes were high since Kanak culture is not experienced in the same way in the Loyalty Islands (or between the three islands) and the mainland, known as the "Grande Terre". Thus the festival was a means of rekindling founding cultural values that allowed the indigenous population to free itself of the alienation caused by the colonial era and assert its "right to cultural being and existence in New Caledonia" (Tjibaou 1996: 14). Lastly, this festival was the means of getting "indigenous culture" known and above all recognised (Tjibaou 1996: 14) by the other communities concentrated around Noumea, in view to forging a "cultural future". Following the festival, Jean-Marie Tjibaou wrote *Kanaké, Mélanésien de Nouvelle-Calédonie*, a book in which he presented the festival, the major traits of Kanak culture and the reality facing the mythical character Kanaké in the contemporary world. Thus he participated in rebuilding the Kanak identity related to a norm of

[3] The employment rate is the ratio of people having a job to the total population concerned.

conscious belonging based on symbolic contrasts. The Kanak "cultural personality" is the expression of indigenous nationalism, a fundamental element in the claim for institutional sovereignty with respect to the French government (Bensa and Wittersheim 1997, 1998).

Next, still according to Jean-Marie Tjibaou, viable independence can be obtained through the active participation of the indigenous population in political power and through control over a stable economy based on the island's "viable mining heritage" as a tool for development (Tjibaou 1996: 116). Controlling development, especially economic, entails both avoiding the mimetic reproduction of the market economy system and freeing the Kanak people from a state of submission under the dominant system left in place since the colonial era. Jean-Marie Tjibaou summed up this position very clearly: "the economic apparatus, including finance and knowhow, is in the hands of the Europeans. The economic system has not stemmed from customs and it is not the heritage of the Kanak. Obviously, they serve as consumers … but today we are trying to trigger a revolution." (Tjibaou 1996: 293).

The implementation of rebalancing actions launched by the provinces is based on financing transfers from New Caledonia and the French government. Firstly, the tax receipts of New Caledonia are transferred to the provinces in the form of subsidies for operating costs and subsidies for amenities. The referendum law of 9 November 1988 stipulates that the distribution of tax receipts is shared unequally, in proportion to the population of the provinces, as the aim is to promote the development of the North and the Loyalty Islands in comparison to the South. The State finances the provinces via a global operating subsidy, and a global subsidy for the construction and equipping of secondary schools (ISEE-TEC 2012: 158). Five development contracts were signed from 1998 with the provinces. According to the Matignon-Oudinot Agreements, these contracts fulfil seven objectives: "the organisation of initial education and vocational training, the economic rebalancing of the territory and the improvement of infrastructures, improved access to isolated areas, the development of health and social amenities, the promotion of Melanesian culture and the development of productive economic activities" (Matignon-Oudinot Agreements 1988).

The provinces pursue orientations of economic development in two ways. First, the provincial subsidies are used to finance projects proposed by private companies. Each province has adopted a code (of development and/or investment) that identifies the general conditions and procedures for applying their respective aid schemes. Second, semi-public companies (SEM), founded by article 139 of the law of 22 January 1989, are managed by private and public partners (ISEE-TEC 2012: 168). In the South, Promosud is active in the sector of the environment, renewable energies, and participates in hotel projects. In addition, it holds significant shares in the mining sector. In the Loyalty Islands, Sodil (company for the development of and investment in the province of the Loyalty Islands) gives priority to transport, hotel and fishing projects. In the North, Sofinor (company for financing and investing in the North province) focuses on the nickel mining sector. Its subsidiary in this sector, SMSP (Société Minière du Sud Pacifique, of which Sofinor owns 87.25%) is constantly expanding (construction of a mineral extraction plant at Koniambo in the commune of Voh, export of low content mineral ore to clients in the metallurgical sector, etc.).

The Bercy Agreement, ratified a few months before the Noumea Agrement was signed, organises the transfer of nickel ore of the Koniambo massif from the SLN (Société métallurgique Le Nickel) to the SMSP and to its industrial partner, Falconbridge. Sofinor uses the financial receipts of the SMSP to promote the development of other sectors of activity such as agro-foodstuffs, fishing, livestock breeding, tourism and the development of the VKP region[4]. Signed in 1998, the Noumea Agreement carries on from the Matignon-Oudinot Agreement. It prolongs the provincial and ethnic rebalancing policy and programmes the referendum on self-determination between 2014 and 2018. It innovates in three ways: the progressive transfer of government competences to New Caledonia is planned, a new Caledonian citizenship has been established which provides the foundation for fostering the "common destiny" of the "citizens of New Caledonia" (Nouméa Agreement 1998).

Rebalancing Parameters

The provinces are intended to drive economic rebalancing based on the deployment of amenities, infrastructures and social initiatives (hygiene, health, education programme). Two constraints to rebalancing can be identified. At the macroeconomic level, the division of the provinces segments development. Roughly speaking, the North has opted for the mining industry while the Loyalty Islands have chosen tourism in order to catch up with the South province. This provincial rationale encloses them within their own geographical boundaries, leaving little place for innovation, and comes into conflict with the historic roots of New Caledonian's economy. The strong reactions stirred by the purchase of the Surf Hotel in Nouméa by the North province during the 1990s shed stark light on the feeling that everyone should stay in their own garden, as pointed out by the socio-economist Jean Freyss. The context (social conflicts and political gridlock) in which the provinces were established in 1988 led to the assumption that their boundaries responded to a desire for division to better foster local development rather than generating territorial dynamism. But in the long term, this partitioned development was certainly not a viable solution for New Caledonia. Rebalancing the provinces of the North and the Loyalty Islands cannot be done without taking account the South province, which from the onset of colonialization benefited from the largest share of economic activity. New Caledonia runs the risk of finding itself in the dead-end of "marginal integration or institutionalised dualism" (Freyss 1995: 432). As underlined by Jean Freyss, "the imperative of development is presented as the problem of the Kanak, as if the European community and the other non-Kanak communities were part of a developed economic system (…). Development does not only concern the Kanak, but Caledonian society as a whole" (Freyss 1995: 229). For all that, the political will set out in the Noumea Agreement to bring into being a common destiny augurs a reorientation in

[4]VKP is composed of the first letters of the three communes of the east coast: Voh, Koné, Pouembout.

provincial strategies towards inter-provincial ones. The measures introduced since the 2000s regarding social welfare give a glimpse of this new ambition. Next, the funds required for rebalancing depend on the transfers made from the French government since the beginning of the 1990s, and which represent a third of New Caledonia's GNP (ISEE-TEC 2012: 137). They are used for the direct expenses on households and the administrations, through development and urban contracts and through the tax exemption scheme (ISEE-TEC 2012: 166). It may appear paradoxical that the government participates in financing the decolonisation process of New Caledonia. Two possible explanations for this are the quest for redemption for the colonial past and the desire of France to maintain its influence in the South Pacific. However, this did not give genuine economic impetus capable of triggering internal growth, nor did it allow the Kanak to control the rules of the dominant system (money, taxation, civil service). Jean Freyss postulates that "it is up to the Kanak to find the solutions to their sociocultural constraints. However, it is the government's task to loosen the constraints of the assisted economy, that is to say the decolonisation of the economic base, by making it efficient and open to development" (Freyss 1995: 430). This runs counter a strategy of "bottom-up decolonisation" (Freyss 1995: 429), which is to say that the process of change through micro-projects cannot lead to a structural change in economic relations. As for the macroeconomic measures implemented, apart from the mining plant project in the North, they remain marginal. This macroeconomic inertia impacts on social change in Kanak domestic society.

The second constraint on rebalancing is microeconomic. In order for rebalancing to function, it cannot be dissociated from the need to integrate (at least partially) the Kanak in the market economy. However, the leaders of the provinces of the North and Loyalty Islands want the population to take over provincial initiatives and development projects while maintaining tradition through the cult of "Kanak cultural personality". This apparent dichotomy means that the Kanak population must assimilate the wheels and cogs of the market system (qualifications, jobs, trading) without altering the structure and jeopardising the integration of the Kanak domestic system; however inequalities in the latter do not have the same meaning. Indeed, the Kanak domestic system is based on a subsistence economy in which relations kinship and place of residence intertwine. This cashless economy is based on farm production, hunting and livestock breeding. Farm practices above all concern the production of root crops comprising the yam and cocoyam. In addition to providing nutrition they possess a symbolic value in customary exchanges between clans (marriage, mourning, childbirth) (Bensa 1990). In her works on Maré, the anthropologist Elsa Faugère distinguished three references to customs. The expression "it's the custom" refers to Kanak tradition, whereas saying "it's a custom" refers to a specific ceremony (marriage, mourning, etc.), whereas "practicing the custom" refers to the gestures and words expressed at certain family ceremonies (Faugère 2000, 2002). According to Polanyi, this type of economy is based on community production processes combining three components. The reciprocity of exchanges in a model organised symmetrically, redistribution through indebted members and domestic organisation are based on the family as a unit of production and consumption.

Thus, in this type of economy, social relations are embedded in the economic system which is merely a simple function of social organisation (Polanyi 1944). The social organisation of the domestic system is characterised by an aristocratic type social hierarchy that "links and integrates groups and people in such a way that the situation of pariah or tramp does not exist" (Bensa 1995: 40). When a conflict leads to the departure of a member of the tribe, he will find another social position elsewhere. The hierarchy in this type of society is a "principle of hierarchal order applied according to circumstance. It entails the qualitative ordering of groups and individuals and justifying, via a rigid system of ranks, relations of political domination" (Bensa 1995: 40). This hierarchy is not averse to a change of social position since the political ground is based on the hierarchy of the clan in which functions are balanced by statuses. The lineages that compose the clans are organised from the most prestigious to the newest. The names of the most important lineages are genuine titles. When a title becomes vacant it sets off competition that results in "a collective decision or a grab for power" (Bensa 1995: 40). Consequently the level of qualification, or the type of job held and its pay are not markers of social distinction in the Kanak domestic system, contrary to the capitalist system. The latter is characterised by the market economy, imports and exports, a limited agricultural market and a highly developed service sector. This type of economy is dissociated from the social sphere since redistribution as a mode of socioeconomic and political organisation replaces the reciprocity of exchanges (Polanyi 1944). Besides the specificity of the two systems that coexist in New Caledonia, it is important to grasp how the capitalist system is embedded in the domestic system. This is illustrated by the distribution of money, which is regulated socially in the Kanak domestic system. It does not permit upwards mobility in the socio-political hierarchy since the latter is based on an aristocracy in which distinction is bound to the status of seniority, "itself manifested by the names of the land from which the identity of lineage springs" (Bensa and Freyss 1994: 4). Therefore money is perceived as a means of acquiring consumer goods and not as the accumulation of wealth indicating social differentiation. In the same vein, the types of clothing and dwelling are far from being ostentatious because "the proud run the risk of attacks by witchcraft" (Bensa and Freyss 1994: 5). Moreover, money represents the commercial thinking of the non Kanak and contradicts the functioning of the domestic economy, since "money is earned by being a civil servant or employee but not as an independent farmer or head of a company" (Bensa and Freyss 1994: 11). While confirming this analysis, Elsa Faugère emphasises the contradiction with actual behaviours, as the Kanak have integrated money in the domestic system, notably through custom. For the anthropologist, this "demonization" of money results from a confusion between money and the market (Faugère 2000: 41). Two examples highlight the controlled recourse to money in the Kanak domestic system. Firstly, money is used in the ceremonial exchanges that punctuate social life in the same way as do their subsistence farm products (Bensa and Freyss 1994; Faugère 2000, 2002), which are given to relatives or allies who return the favour during ceremonies. These give rise to ceremonial exchanges of root crops, fabrics and banknotes which are a means of strengthening family ties (Bensa and Freyss 1994). Secondly, the real uses of mon-

etary exchanges occur at the "periphery of the Kanak socio-ideological system" (Bensa and Freyss 1994: 5). Kanak households concoct a strategy strongly based on multi-activity aimed at generating income (Bouard and Sourisseau 2010: 270). Surplus agricultural production can be sold at markets or on the roadside. The money earned is used to buy consumer goods and both can be reinjected in the circuit of ceremonial exchanges.[5]

From our perspective, the coexistence of two economic systems in New Caledonia should not be studied from the angle of opposing tradition with modernity and still less from that of an evolutionist approach to these two dimensions. Although market logic is not the driving force of domestic society, the economic system of the latter is not bereft of economic rationality. What is more, in order for rebalancing to work, it cannot be dissociated from integration in the market economy. It is therefore necessary to understand the links between these two economies and the social change stemming from it, according to the dialectic of integration in and exclusion from the capitalist system and the forms it takes. Furthermore, the issue of Kanak social mobility in the market system and its consequences on social integration (domestic and market) will be fascinating to investigate. Do they seek to be integrated in the capitalist system? How do they succeed in reconciling the demands made by both the domestic and capitalist systems? Here, we limit ourselves to analysing the level of qualification and living conditions of Caledonians, to evaluate the effects of the rebalancing policy on reducing inequalities.

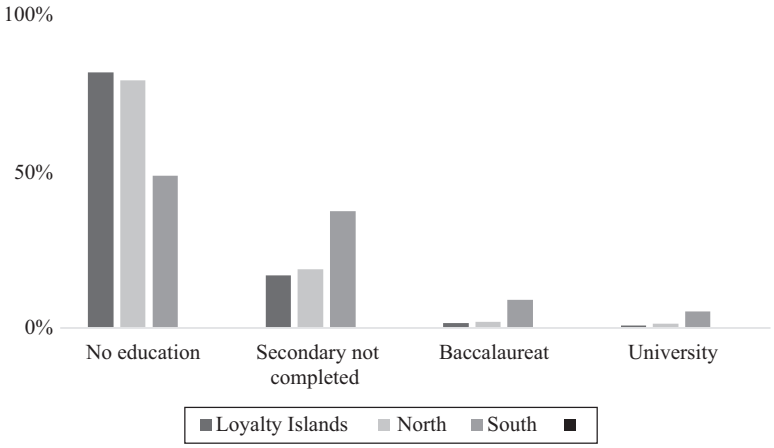
Education and Inequalities

The cost of the education system represented 12% of New Caledonian GNP in 2010 versus 7% in France. Since 2005, domestic education expenditure [6] (DEE) has grown at a rate similar to that of GNP, whereas the population of pupils and students is stable. This can be explained mainly by the young age of the population, of which 34% (versus 25% in France) were under twenty years old in 2009 (Wiorek 2013).

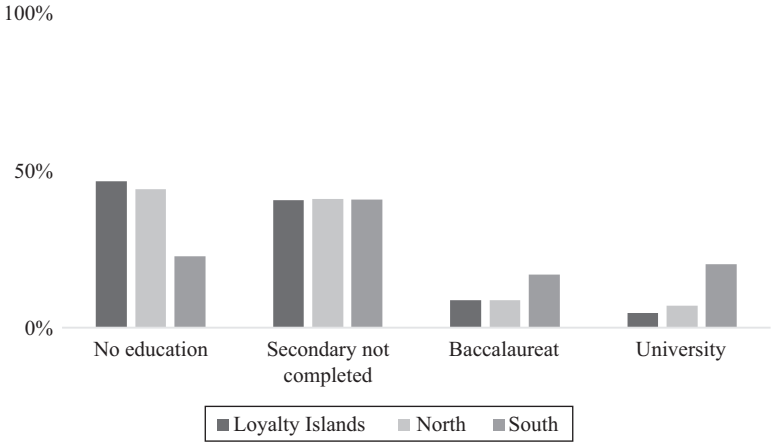
Education in New Caledonia is compulsory for the population aged from 6 to 16 years old and its organisation is shared between the French government and New Caledonia. The Nouméa Agreement partly transferred competences for education to New Caledonia. Today, the government remains competent for awarding degrees, pedagogical management, the initial and continuing training of public secondary school teachers, and higher education and research, which can be transferred to

[5] These data were extracted from a survey performed in the North province in the framework of participatory monitoring scheme of a grouped land development operation (OGAF: local development operation) in three communes (Touho, Poindimié and Ponérihouen) on the east coast, far from the mining and the urban areas.

[6] The DEE is a measure of the effort made by the community in favour of the functioning and development of the education system.



Graph 9.1 Level of education by province in 1989 (Source: Insee- Isee, Population censuses)



Graph 9.2 Level of education by province in 2009 (Source: Insee- Isee, Population censuses)

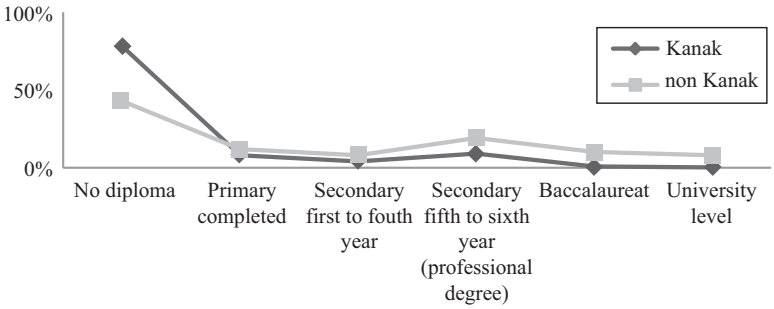
New Caledonia by virtue of article 27 of the organic law. The French government also allocates an annual compensation subsidy to cover operating expenses.

In twenty years, the level of education of the Caledonian population has progressed considerably (Graphs 9.1 and 9.2). In 2009, 28% of Caledonians had no qualification. This figure is half that recorded in 1989. This increase involves the three provinces. The population of the South province has a higher number of qualified individuals than the other two. In 2009, 17% were undergraduates and 20% had graduated from higher education. This is two to three times more than in the North and in the Loyalty Islands. The rise in the level of qualification in these two prov-

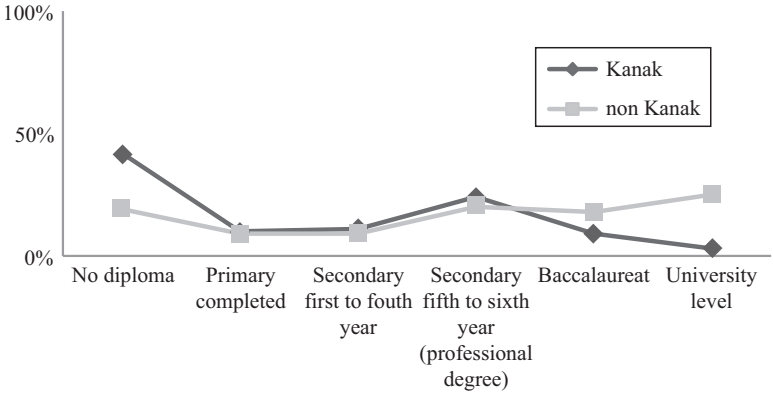
inces above all concerns professional certificates below the level of the baccalaureate. The main explanation is lower mastery of basic learning in the fifth and sixth grades, which more frequently leads to manual professions (DENC 2008).

Whatever the province of residence, the rise in the level of qualification obtained has favoured women. In twenty years, the number of women who have passed their baccalaureates and hold university degrees has increased to now outstrip that of men. It was above all in the period 1996–2009 that the share of undergraduates and graduates from higher education increased the most: 16 points versus 12 points for men. This phenomenon is common to the three provinces and can be explained by a generation effect. Among the 20–40 year-olds, the share of baccalaureate and university graduates has doubled, rising from 21 to 41% in thirteen years. As in metropolitan France, the integration of women in higher education results from their better school results and their longer school attendance. This trend also concerns Kanak women which, according to Hélène Nicolas, can be explained by a dual movement. Firstly, the education policy implemented in New Caledonia tends to bring Caledonian education into line with that in France. This objective favours the mixing of pupils in schools, conveying an egalitarian ideal and developing a psychobiological conception of gender identities, as demonstrated by Duru-Bellat and Jarlegan in their works on the French school system. Secondly, the independence movement supports access for Kanak to managerial posts in view to gaining independence. The girls are therefore educated to obtain a degree and find work, thus they are no longer confined to domestic chores. "From the beginning of the 1990s, parents strongly encouraged children of both genders to succeed at school: the future of the clan, the island and the Kanak people depends on mastering western knowhow" (Nicolas 2010: 233). This dual movement leads to raising the level of education of Kanak women as it is both part of the independence movement's strategy and it plays a role in matrimonial strategies. Indeed, the women's incomes provide support for the home clan and for the husband, as they contribute to daily expenditure and customary exchanges. What is more, their increased autonomy in conjugal relations (for example, leaving home and bringing charges against their spouse for violent conduct), and their increased involvement in politics and in associations protesting against male domination, are other consequences of the increased levels of qualification obtained by women (Hamelin and Salomon 2004, 2010).

The increase in the average level of education of the population benefits all the ethnic communities (Graphs 9.3 and 9.4). In 2009, 20% of non Kanak left school without any qualification. This figure is 2.5 times less than it was twenty years ago. Over this period, the proportion of Kanak without a qualification has also fallen though more slowly: 41% in 2009 versus 67% in 1989. Rebalancing has meshed but there is still a long way to go. Between 1989 and 2009, the differences in percentages remained stable between Kanak and non Kanak regarding those whose highest qualification was the baccalaureate. They became positive only for qualifications of lower level than the baccalaureate in 2009. Thus, percentagewise, the number of Kanak obtaining secondary school certificates, such as the CEP, BEPC, CAP, BEP, as their highest qualification has risen. As with the results obtained by province, this can be explained by the fact that the Kanak perform less well in basic education than



Graph 9.3 Level of education by ethnic group in 1989 (Source: Insee- Isee, Population censuses)



Graph 9.4 Level of education by ethnic group in 2009 (Source: Insee- Isee, Population censuses)

the non Kanak. How can this observation be explained? In the 1970s, teachers put forward a psychological explanation, that of the "Melanesian mentality" (Kohler and Wacquant 1985; Salaün 2005) linked to the material situation of families. This explanation resulted from the definition of the essence of the indigenous" personality" through its non-differentiation with nature, which concords with the works of Maurice Leenhardt, somewhat more philosophical than ethnological. The cultural handicap, related to the linguistic code of Berstein's works, is the second explanation of the Kanak' failure at school: "they lack the linguistic code because they come from another culture" (Salaün 2005: 4).

The third explanation, the paradigm of cultural discontinuities, which received extensive attention in the context of racial inequality and poor school achievements in the United States, which is not the case in New Caledonia. This has led to research on efficient learning methods. Anthropologists emphasise that, paradoxically, consensus has been reached regarding the explanation for the psychological cause for

Kanak educational failure in New Caledonia. For some, these psychological traits justify criticism of the French education system (inherited from the colonial era). For others, it is not the institution that is inefficient but the non adaptation of the "Kanak mentality" to the norms, codes and values of French education. In addition, on analysing the proceedings of the symposium Pour une école de la réussite (For a school of success) held in 2002, Marie Salaün observes that the argument of "mentality" persists. The absolutism of cultural difference leads to the conception that "all the Kanak, because they are Kanak" are indifferent to the education of their children, access to money and thus a salaried job (Salaün 2005: 7). They propose a new approach to the issue of school failure that can be summed up in three points. First, rebalancing did not benefit Kanak in the same way. They do not stand on an equal footing regarding qualifications and the job market. A study of the social stratification within domestic society would make it possible to formulate correlative analyses of levels of qualification. Secondly, relations with culture cannot be thought of as a "whole". Salaün draws in particular from her research on families involved in experiments with Kanak languages in teaching at nursery school to distinguish language competences and attachment to indigenous culture. Bilingualism learned at school is a parental strategy. Thirdly, it is necessary to examine community relations. The Kanak child is not "stuck in the group to the point of never finding individual resources to ensure success at school" (Salaün 2005: 10). This leads to questioning strategies of individualisation and no longer only the link between the individual and the group. These research perspectives are interesting since the rise in the level of qualification (baccalaureate and higher education) achieved by the Kanak since 1989 is undisputable.

In 2009 as in 1989, a non Kanak had more chance of being qualified than a Kanak (Table 9.1). The higher the qualification the more inequalities between the two groups grew. On the contrary, in twenty years, the odds ratios[7] have fallen for all qualifications, thereby confirming that access to qualifications has become more democratic. The odds ratio has decreased most for university qualifications: 9 in 2009 versus 36 in 1989. This analysis focused on the generation of 20–30 year-olds confirms fairer access to qualifications. The odds ratio for this age group varies considerably according to type of qualification. The variance ranges from 1 to 2.2 for any qualification and from 1 to 7.1 for university qualifications (Ris 2014). Thus inequalities have not vanished but have changed. They can now be identified in particular in the heterogeneity of types of baccalaureate and less on access to the latter. In 2009 non Kanak had five times more chance of having the baccalaureate as their highest qualification, whatever the type. When distinguishing the type of baccalaureate, a non Kanak had as much chance as a Kanak of holding a professional-

[7]The odds ratios define the statistical association between two dichotomous variables: here the community of ethnic group (Kanak, non Kanak) and the highest qualification (for example, obtaining the baccalaureate or not). The closer the odds ratio is to 1 the greater the statistical independence, i.e. the chances for the Kanak and non Kanak of having the baccalaureate as the highest qualification are similar (Hadj et al. 2012).

Table 9.1 Evolution of odds in acquiring qualifications, by type and level of education ratios between (Non Kanak and Kanak aged 14 or more)

		1989	2009
All qualifications	Non Kanak / Kanak	2.9	2.8
Odds ratio	Conditional	*	2.6
Baccalaureate (all types)	Non Kanak / Kanak	12.5	4.8
Odds ratio	Conditional	*	4.4
General bac.	Non Kanak / Kanak	15.2	6.1
Odds ratio	Conditional	*	5.5
Tech. prof. bac.	Non Kanak / Kanak	5.4	1.5
Odds ratio	Conditional	*	1.9
University qualification	Non Kanak / Kanak	36.0	9.4
Odds ratio	Conditional	*	8.7

Source: Hadj et al. (2012)
(*) In 1989, the individual data were not available to estimate the regressions and calculate the conditional odds ratios
Interpretation: in 2009, a non Kanak had 4.8 more probability than a Kanak of passing their baccalaureate. When controlling for age, gender and province of residence, this ratio falls to 4.4

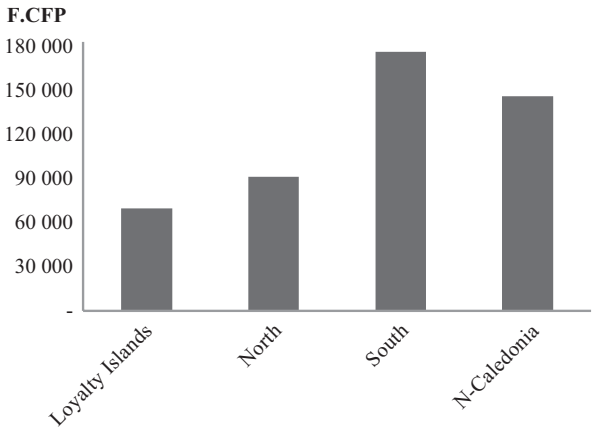
technological baccalaureate. However, this ratio has increased to 6 for the general baccalaureate (Hadj et al. 2012).

Inequalities of access to qualifications are potentially due to observable differences of characteristics such as age, gender and province of residence. When examining these characteristics, the odds ratios decrease. Thus a non Kanak has only 4.4 times more chance of obtaining a baccalaureate (all types) and 5.5 times more chance of obtaining a general baccalaureate than a Kanak. This transfer of inequalities has also occurred in metropolitan France. The democratisation of the baccalaureate expresses the persistence of inequalities in access to higher education. "This restricts the scope of democratisation in higher education, since jobs do not depend on the level of qualification but on the type of specialisation pursued" (Hadj et al. 2012).

Inequalities of level of qualification by province are confounded with those of living standards[8]. According to the household consumption survey (BCM-2008), in 2008, the living standard of half the Caledonians was less than 144,000 FCP per month and per unit of consumption. By way of comparison, the minimum guaranteed wage (SMG)[9] was 123,000 FCP per month. This part of the population concentrates

[8] The standard of living corresponds to the ratio of a household's resources to the number of units of consumption according to the OECD scale of equivalence. Total resources are composed of non monetary resources (commodities produced by the household itself, withdrawals from stock for households with a professional activity allowing them to use gifts received from another household and the advantages in kind received) and monetary resources (income from work, social income, capital income, exceptional income).

[9] The SMG "is the legal minimum below which no contractual wage can be set without penal (art.R.145-3) and civil sanctions. The SMG is applicable to all employees, except those of the agricultural sector for which the Minimum Agricultural Wage (SMAG) is applicable. The SMG and SMAG are fixed by decree issued by the government of New Caledonia after consultation with



Graph 9.5 Median monthly standard of living in 2008 (Source: Isee, BCM-2008)

only 21% of total incomes. This considerable inequality is present between the provinces (Graph 9.5). The inhabitants of the South province are richer than those of the two others. Their median standard of living amounts to CFP.F 173,000 per month/consumption unit. This amount is double that of the North province and two and half times that of the Loyalty Islands. These inequalities can be explained mainly by the much higher wages earned in the South province: they represent 70% of the income of people living below the median standard of living, versus 45% in the North province and 39% in the province of the Loyalty Islands. The other types of resource, notably welfare allocations and non-monetary resources are much higher in the North and the Loyalty Islands, though they are not enough to fill this gap (Hadj 2010).

In seventeen years, the median standard of living increased by 1.3% per year, after accounting for inflation. The standard of living of half the Caledonians was below a monthly living standard of 144,000 FCP/cu versus 116,000 FCP/cu in 1991, at 2008[10] prices, a mechanical result triggered by the rise in the guaranteed minimum wage (SMG). The obligatory average legal minimum legal wage of all workers rose from 89,900 FCP to 123,000 FCP in seventeen years, i.e. an increase of 1.8 % per year, at 2008 prices. The median standard of living during this period also increased for the three provinces. However, intra-provincial inequalities were substantial (Graph 9.6).

In New Caledonia, the living standard of the wealthiest 10% is 7.9 higher than that of the poorest 10%. Inequalities in standard of living are considerable compared to metropolitan France, where the inter-decile ratio is 3.6. In New Caledonia,

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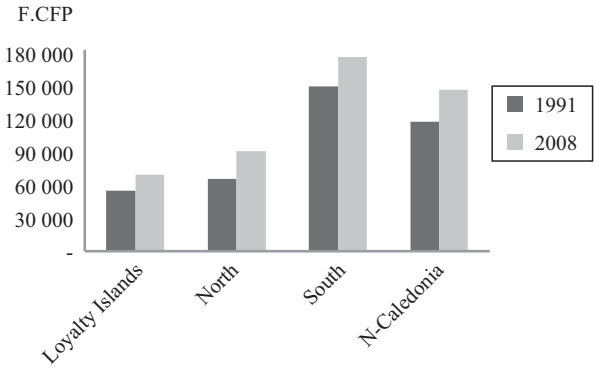
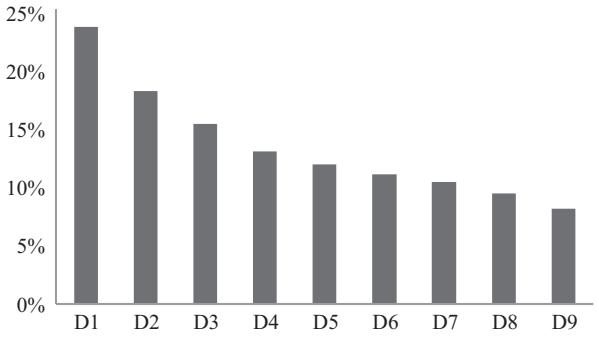
the consultative labour commission. The SMG was instituted by ruling no.85-1181 of 13 November 1985" (ISEE-TEC 2012).

[10] At 2008 prices indicates that the data of 1991 take into account price inflation between 1991 and 2008.



Graph 9.6 Evolution of the median monthly standard of living (1991–2008) (Source: Isee, BCM-1991, 2008)

in 2008, the Gini index amounted to 0.43, indicated strong provincial inequalities. The inter-decile ratio (D9 /D1) of the South province is 6.4. This is the province with the least inequality contrary to the Loyalty Islands, where the standard of living of the richest is 9 times higher than that of the poorest. The inter-decile ratio of the North province is at an intermediate level, 7. Intra-provincial inequalities are thus still marked despite the rise in the median standard of living for the three provinces in seventeen years. They even increased in the South province and the Loyalty Islands. In seventeen years, the inter-decile ratio (D9/D1) of the Loyalty Islands increased from 8.4 to 9.3. The inequality gap between the richest (+1.4% per year) is wider than that between the poorest (+0.8% per year). To a lesser extent, inequalities have also widened in the South province. In seventeen years, the ratio increased from 6 to 6.4. The standard of living of the wealthiest also increased (+0.9% per year) more than that of the poorest (+0.5% per year). The Gini indices of 1991 and 2008 confirm this increase in inequalities: it rose from 0.37 to 0.40 in the South province whereas it rose from 0.42 to 0.44 in the Loyalty Islands. On the contrary, in the North province the inequality between the wealthiest and the poorest lessened over seventeen years. The inter-decile ratio fell from 8.5 in 1991 to 7 in 2008. Between these two dates the standard of living of the poorest increased faster than that of the richest (+2.4 % per year, versus +1.3% per year). The North province underwent considerable development regarding facilities, roads and property in a context of provincial rebalancing and the construction of an industrial plant. This led to the creation of jobs, particularly in the area of construction and nickel mining, resulting in higher wages. The reduction of inequalities was confirmed by the Gini index. This fell from 0.45 to 0.41 in the North province over the seventeen period (Hadj 2010).



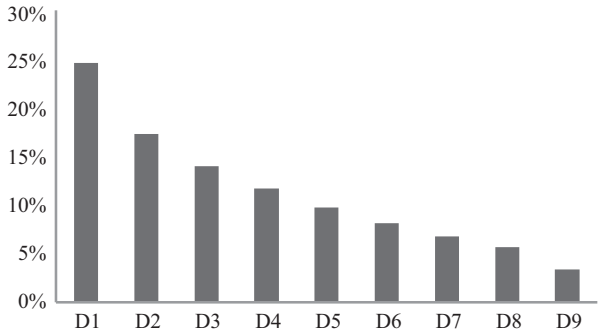
Graph 9.7 Non-monetary resources in percentage of total income per decile (Source: Isee, BCM-2008)

A Dual Response to Continuing Inequalities in Living Standards

In 2008, the gap in the living standards of the richest and the poorest, was compensated by non-monetary resources and welfare allocations[11]. If one of these two resources had been withdrawn from the poorest, their living standard would have been 9.7 less that of the richest, contrary to the 7.9 observed. Recourse to non-monetary income is common practice in New Caledonia. In 2008, each Caledonian household saved the equivalent of 36,000 FCP per month gained from non-monetary resources, i.e. 8% of total resources. 65% of Caledonians are concerned by recourse to this type of resource. At provincial level, 51,000 FCP a month from non-monetary sources was saved by households of the North province, 43,000 FCP in the Loyalty Islands and 31,000 FCP in the South province. These amounts represented 18% of the total resources of the North province and the Loyalty Islands versus 6% in the South province. There, advantages in kind (for example, accommodation and cars provided by employers) are more common since the number of white collar employees in this province is higher (Jone 2010). Per decile, non-monetary resources make up 23% of the total income of the poorest (D1). They stem exclusively from self-production (fishing, hunting, and gardening). At the other end of the income scale, non-monetary income makes up only 8% of the total income of the richest (D9). They are alone in having non-monetary resources of which two thirds are advantages in kind (accommodation and cars provided by employers) (Graph 9.7). As for social allocation (excluding pensions), they also benefit the poorest (D1). A quarter of their income stems from welfare allocations.

For the richest (D9; see Graph 9.8), this proportion amounts to barely 3% of total income (Hadj 2010). The payment of welfare allocations is an essential political stake regarding their amount, distribution and attribution. New Caledonia holds

[11] The social services and welfare allowances in the BCM 2008 corresponded to pensions, retirement pensions, family allowances, postnatal allowances, education allowances, start of school year allowances, social allowances, food pensions, old-age allowances, aid for children and other financial aids.



Graph 9.8 Welfare allocations in percentage of total income per decile (Source: Isee, BCM-2008)

competency in the areas of health, public sanitation and social welfare. It has its own social welfare system distinct from that of France. The Caledonian government monitors and supervises the organisations responsible for social welfare. Under its responsibility, the CAFAT (family allowance and accident welfare fund), set up in 1958, manages five social welfare schemes for employees (work accidents and occupational diseases – old age and widowhood – family – unemployment - and sickness, maternity, disability and death). The social welfare system managed by the CAFAT provides insurance and welfare services to which the population is entitled by law. It is distributed as a function of need and the levies imposed on salaries (taxes and national insurance contributions). Friendly societies (for civil servants, retailers, liberal professionals and nickel workers) and private insurance schemes offer additional cover for illness, maternity and disability. This system is completed by welfare assistance for people who have either not contributed sufficiently or at all, so they can benefit from the protection provided by the general system. New Caledonia sets the minimum legal framework which is then implemented by the provinces. This framework was established by ruling no. 49 of 28 December 1989 and is based on two components. The first concerns legal social welfare through medical aid, aid to the elderly, aid to the disabled and aid to children in welfare establishments. The amounts of these aids are lower in the North and the Loyalty Islands. Those responsible for managing the provinces justify this position by1/ a need for money limited and compensated by the domestic economy; 2/ a limited need for money in the domestic economy. This expresses a political desire not to deregulate ties between and within families, clans and hierarchies through the introduction of money.

The second component of social action is extra-legal social aid. This concerns very specific situations that either do or do not correspond to criteria of legal social aid. The aid granted is not an entitlement but responds to allocation criteria providing flexibility regarding the cap fixed on the aid given. This form of assistance is discretionary as the aids linked to it are granted at the initiative of the social welfare authorities. Covering a larger and less clearly defined scope, they can compensate non entitlement to welfare. Using the Household budget and consumption survey to determine whether the social allocations received fall within the framework of

social protection or social assistance (legal and extra-legal) is difficult. Clarification of this distinction could make it possible to determine the action taken by households to obtain social benefits as it would allow assessing their capacity to seek information and resort to the rights to which they are entitled.

At provincial level, non-monetary resources and those obtained from social welfare allocations play different roles as regulators of inequality. In the Loyalty Islands, the contribution of non-monetary resources, especially all garden produce, reduces the inter decile ratio by four points, from 13.2 to 9.3. But it is social resources (excluding pensions) that reduce inequalities even more substantially. Without them, the inter-decile ratio would rise to 21.8. For the poorer half of the population of the Loyalty Islands, 28% of its income originates from social welfare (excluding pensions). This proportion rises to 59% for the poorest (D1). The size of this proportion can be explained by two types of welfare allocation. The first is the allocation accorded to old people paid to those over 60 years old with an income of less than 31,000 FCP per month. The maximum amount of this aid is 25,000 FCP. In all, the province paid 263 million FCP for these pensions in 2008. The second welfare allocation is the RIL (Loyalty Islands integration income). The amount of this is equal to half the legal minimum wage (SMG) and varies according to family composition. In all, 209 million FCP was spent on this allocation in 2008. The resources of those people eligible must be less than the SMG, they must be jobseekers and have lived in the Loyalty Islands for more than six months. This situation coincides with the evolution of the proportion of non-monetary resources in total household resources. Between 1991 and 2008, the province of the Loyalty Islands was alone in seeing its share decrease from 26 to 18%. This reduction resulted from a decrease in non-monetary resources (-6%), but above all an increase in monetary resources in comparison to 1991 (by more than half). Non-monetary resources reduce inequalities far more in the North province than in the Loyalty Islands. The inter-decile ratio fell from 12.5 to 7, when adding non-monetary resources, i.e. 40% less. The resources resulting from self-production and gifts received are the non-monetary resources. The former concerns a domestic activity that provides additional food. As with the gifts received, such activities fuel a network of exchange and family, tribal and clan solidarity. Furthermore, without social welfare resources, the inter-decile ratio would be higher than 20%, rising from 7 to 8.5. The difference is lower than for non-monetary resources. In the South province, non-monetary resources reduce inequalities little as they concern both the upper and lower levels of the income scale. The richest benefit from advantages in kind whereas the poorest resort to self-production despite the fact that access to a small plot of land in urban areas is difficult. Thus the inter-decile ratio remains stable, with or without non-monetary resources. However, inequalities would grow without social welfare allocations. The inter-decile ratio would rise to 7.3 instead of 6.4 (Hadj 2010).

How can the recourse of the most disadvantaged households to non-monetary resources and social welfare allocations be characterised? Firstly, according to the theory of change and response recourse to non-monetary resources (especially self-production) corresponds to an inherited-preferred response. This is “rooted in the culture, the ethos in ways of being and doing, handed down from generation to

generation" (Charbit and Petit 2011). Recourse to this type of resource is specific to the populations of the North and Loyalty Island provinces, for the most part Kanak. Farm production forms the basis of domestic society. This type of response is characterised by an unconscious rationality" requiring the study of factors that lead the players to change their response (Charbit and Petit 2011). The economic development of the territory, especially in the North, favours the increase of the Caledonians' median living standard. However, the share of non-monetary resources in total resources is stable in the North and South provinces, whereas in the Loyalty Islands, non-monetary resources are giving way of monetary resources, in particular social welfare allocations. This observation leads to a second response from the most disadvantaged households. The interrelations of non-monetary and monetary resources (including social welfare) characterise a hybrid response between the economic systems of domestic and capitalist societies. According to the typology of the theory of change and response, this corresponds to an oriented type response as it is promoted and even built by institutional and political actors through the rebalancing policy. Furthermore, this response is confirmed by the strengthening of social protection. Indeed, the Social Pact of 2000 was formulated with the aim of improving the living conditions of Caledonian employees and their families. Its provisions made changes to the general social welfare system and to the assistance scheme managed by the provinces. These changes can be broken down into two directions. Firstly, three branches of the general social welfare system were developed. Regarding health, the project to extend unified social welfare coverage to all employees was finalised by the Departmental law no. 2001–016 of 11 January 2002. Guaranteed by the RUAMM (unified maternity and health insurance scheme) since 1 July 2002, it covers the employees of the private sector, civil servants and independent workers as well as their dependents against the risks and expenses of the health, maternity and death branch of the general social security system. The implementation of this system has led to much greater access to care than existed previously. For families, the three family allowances that hitherto only existed for employees were generalised in favour of the most disadvantaged by the Departmental law no. 2005–4 of 29 March 2005: the prenatal allowance, the maternity allowance and the new school year allowance (called solidarity allowances). They support families during pregnancy, at childbirth and during the child's education and are considered as a factor of social advancement. These allowances have permitted the identification of populations that previously had no assistance and were therefore unknown to the public or community services, such as single mothers. A two-pronged advance was introduced regarding old-age pensions. First, persons who have contributed for at least five years to the retirement scheme of the CAFAT can apply for a supplemental solidarity pension (Departmental laws no. 2006–13 of 22 December 2006, no. 2009–3 of 7 January 2009, no. 2010–3 of 21 January 2010, no. 2011–7 of 28 December 2011). This aid is redistributed by the government. It completes the minimum retirement pension of the CAFAT (31,950 FCP a month) up to 90,000 FCP a month. Second, persons who have not contributed for at least five years (thus who are not eligible for the CAFAT to draw pensions) can benefit from a minimum old-age pension. The provinces remain responsible for funding and distributing this aid. It replaces the

old-age allowance previously granted by virtue of the provincial social aid system. Its amount has been harmonised for all three provinces. Today, a single person will receive a minimum old-age pension of 85,000 FCP per month, whereas before, according to their place of residence, they received 25,000 FCP in the Loyalty Islands, 30,000 FCP in the North and 50,000 FCP in the South.

Secondly, a housing aid intended for tenants has been introduced (Departmental law no. 2007–4 of 13 April 2007). It is not an entitlement but financial aid for tenants renting their main place of residence. Granted according to certain conditions of resource, family composition and the amount of rent paid, it must be used to pay the rent and the deposit paid to the owner when moving into the dwelling. It is granted according to the same criteria and the same amount is distributed whatever the province of residence. By extending the criteria for eligibility, linked to the introduction of the disability and dependency allowance, and the aid given to elderly persons, this aid can also be paid to retired residents of old people's homes and to students. This is the first time that a social welfare benefit is financed by the provinces, the government and the social housing fund (FSH) in its capacity as the organisation responsible for collecting contributions paid by private employers from wages (the share of the FSH amounted to 2% on 1 January 2013).

In parallel with the social measures resulting from the Social Pact, an allowance intended for disabled persons was introduced. Laws on the disabled persons in metropolitan France have led to the setting up of the *Collectif handicap de Nouvelle-Calédonie*[12]. It demands the recognition of the rights of disabled persons through their full participation (access to culture, sport, education and the job market) and by the possibility of obtaining resources when the handicap prevents the person from earning a wage. To this end, the public authorities have set up an aid scheme: a personalised allowance for disabled adults with accommodation aid, day care, living assistance, aid to help families pay for additional costs and aid for transport (Departmental law no. 2009–2 of 7 January 2009). This territorial aid scheme has replaced provincial aid whose amounts were often far lower, variable from one province to the other, and without continuity from one province to another if the person moved.

Conclusion

New Caledonia has been undergoing a process of decolonisation since the signature of the Matignon Agreements in 1988. This process is occurring hand in hand with a policy of spatial-ethnic rebalancing to reduce inequalities. The implementation of the rebalancing policy is influenced by two parameters. The first concerns the territory's macroeconomic structure which hinders genuine structural change. The second, on which our work focused, concerns the coexistence of two systems

[12] The *Collectif handicap de Nouvelle-Calédonie* was founded in 2004. In 2007 it participated in the General Conference on Disablement in New Caledonia. It now groups 25 associations.

with different implications regarding social status and inequalities: the Kanak domestic system and capitalist society. The rebalancing policy speeds up changes in the domestic system as it implies (at least partial) integration in the capitalist system. Thus, according to the population censuses of 1989 and 2009, quantitative rebalancing appeared to have begun. This period of twenty years witnessed a greater number of Kanak obtaining qualifications, a change illustrated by the number of Kanak passing the baccalaureate (all specialities confounded), the qualification required to continue with higher education. In 2009, non-Kanak had 4.8 times more chance of obtaining their baccalaureate. This ratio was 12.5 twenty years earlier. However, this process of quantitative rebalancing did not occur with qualitative rebalancing. Generally, the level of the qualifications held by the Kanak population is lower than that of the non-Kanak. Therefore, in 2009, a non Kanak had as much chance as a Kanak (odds ratio of 1.5) of obtaining a technological or professional baccalaureate. But the odds ratio was much higher in the case of passing the general baccalaureate: 6.1.

The consequence of implementing rebalancing has been to accelerate social change in the Kanak domestic system and modify the relation of inequality contested before the Matignon-Oudinot Agreements. It is based more on ethnic precepts (Kanak in relation to non Kanak) than on a rationale of exclusion (or integration) from the market economy. From this angle, the persistence of inequalities could be seen through the variances of living standards between the provinces according to the Household budget and consumption survey. Although Caledonians' standard of living has improved over twenty years, the South province remains richer and more egalitarian than the other two provinces. These inequalities can be explained mainly by the significantly higher wages earned in the South province. Infra-provincial inequalities are expressed by the inter-decile ratio (D9/D1). In the Loyalty Islands the living standard of the richest (D9) is 13.2 higher than that of the poorest (D1). This ratio reaches 7 in the North province and 6.4 in the South. Only the ration of the North province decreased during the twenty year period. A sign of economic rebalancing, the construction of the KNS factory has spurred more dynamic employment associated with infrastructures, roads and property.

The inequalities in the standards of living of the wealthiest and the poorest are regulated by two resources. Social welfare plays the role of regulator, especially in the Loyalty Islands and the South province, whereas in the North, it is non-monetary resources that reduce inequalities the most. The theory of change and response allows characterising recourse to these two types of resource as the response of the most disadvantaged households. On the one hand, recourse to non-monetary resources is qualified as an inherited-preferred response; on the other hand, the articulation of non-monetary and monetary resources (including social allowances) corresponds to a response oriented by policies. One crucial question must be asked: why do the Kanak continue to rely on the domestic economy and not commit themselves more massively to the capitalist system, despite the strong incentives of the rebalancing policy? This question was raised at the end of the 1990s by Loic Wacquant. He explained that the Kanak provide a flexible labour force for the island's industrial activity, dominated by nickel. During boom times they remain

cheap workers that perpetuate the market system, whereas during downturns they permit the system to "outsource most of cost of its maintenance and reproduction" (Wacquant, 1986: 59). He went further by emphasising that "besides the role of provider of "free social security" played by the market system, the village domestic economy prevented the Kanak from becoming completely proletarianised, which would lead them to become urbanised and enter massively in the structurally limited job market of the capital, thereby destabilising the whole society" (Wacquant 1986: 59). This position provides paths of reflection for trying to understand why inherited-preferred and oriented responses do not become accepted responses expressing a real change of behaviour.

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Chapter 10
Individuals, Families and Development Policy in Reunion

Franck Temporal

In the typology of responses to change, the "inherited-oriented" category was presented mainly from a socio-anthropological perspective focused on individuals, families and communities. The inherited values of their cultures are oriented by actors such as States and supranational actors as a function of objectives that are sometimes foreign to them, like the reduction of fertility by using contraception. Focusing the camera at another point, precisely that of population policies, makes the dynamics of the pair change-response more complicated. Demographic pressure leads to a political response: investments made in the health sector, education, employment. Their objective is to limit the consequences of the demographic wave that "surges" into nurseries, primary schools, secondary schools, and then the job market.

But to evaluate this institutional response, it is necessary to focus on the reactions of the populations targeted by these measures. Are they interiorised or not? Do populations support these policies? Do they grasp the implications of the stakes? These are the objectives of this chapter which presents a territory in which demographic pressure has called for a strong voluntarist political response. The typology emphasised the importance of the psychosociological dimension of responses. Speaking of preferences and orientations means focusing on the attitudes, opinions and perceptions that underpin the behaviours observed. Individuals who use contraception or not, or who emigrate or not, do so as a function of socioeconomic determinants. It is highly likely that the social and cultural capital inherited from their families will influence their decisions. That is to say the three levels of analysis, macro (State), meso (families, communities), micro (individual) are indivisible.

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Let us concretise this problematic in the case of the island of Reunion. An initial analysis shows that Reunion was characterised by shortages and underdevelopment at the time it became a department of France. Strong demographic growth and constantly increasing unemployment led the public authorities to implement a policy of birth control and emigration to France, and strong incentives are still provided. Leaving the island to pursue studies or find a job outside has been an alternative privileged by many young people faced with real difficulties in obtaining work there. However, in spite of the many public schemes to aid mobility, not all individuals stand on an equal footing regarding migration and departures more specifically concern young people of working age, especially those most qualified. Lastly, this chapter illustrates the importance of the family determinants of migration and concludes on the need to adjust the levels of micro, meso and macro-analyses to study migrations and their determinants.

Development Driven From the Outside

The virgin island of Reunion was discovered in the sixteenth century by European navigators. It has been a French possession since 1638, originally under the name Ile Bourbon and is still annexed to France[1]. Its exploitation occurred later, when the East India Company (1665) was founded. From the beginning, colonial ambitions oriented the economy of Reunion towards agricultural production and, gradually, to the production of only one crop, coffee, which was to be replaced by sugar. This option to grow only one export crop in order to satisfy French demand had major consequences on the population and social relations. The slave trade, then the hiring of Indian and Chinese workers, made it possible to obtain the abundant and cheap labour needed to exploit the island. The history of Reunion was characterised by the plantation system based on inequality and domination which continued up to its incorporation in France as a department.

Departmentalisation with a Background of Social Misery

In 1945, the island had a population of 221,000 inhabitants belonging to various ethnic groups which lived separately from each other. Society was divided, with a minority composed of large landowners owning all the wealth, whereas the rest of the population lived in misery. The island lacked amenities, the economy was sluggish, and the health and social situation was catastrophic. It was in this context of poverty that the first claims to change the status of Reunion were made (Vaxelaire 2004). The law to change this status was voted unanimously by the French National

[1] With the exception of the British occupation from 1810 to 1815 during the Napoleonic wars (Vaxelaire 1999).

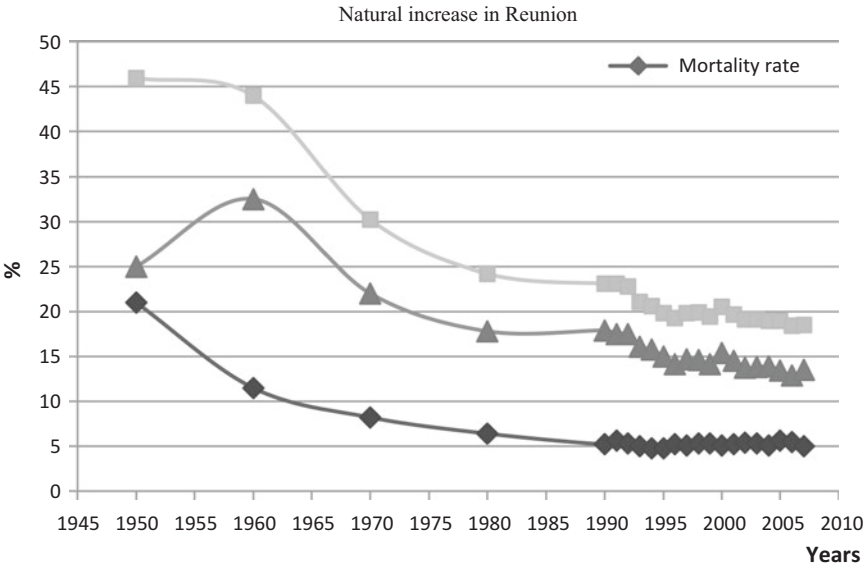
Assembly on 19 March 1946. It was to transform the "old colonies" comprising Guadeloupe, Martinique, Guyana and Reunion into French overseas departments (DOM).

The choice to draw closer to France means that Reunion now has the institutional status of a French Overseas Department (DOM), French Overseas Region (ROM) and European Union Outermost Region (EUOR). This institutional connection with France and Europe has a structural effect on the island's economic and social characteristics. Moreover, this status has had a considerable influence on its development. Continuous transfers of funds from the French government and Europe have permitted the installation of national infrastructures and contributed to modernising the whole society of the island. Little by little, government institutions have been set up and legislation applied, with the result that Reunion now has the same administrative organisation as the departments of metropolitan France. Public transfers of funds are still a driving force for the island's economy and they support development, coping with the structural disadvantages related to insularity, and attenuating the effects of economic and social disparities, notably the underemployment of the population.

With departmentalisation, the French government's first objective was to improve the health and hygiene conditions of Reunion by combating infectious diseases, launching food and vaccination campaigns, and developing an efficient healthcare system. Improving the population's living conditions also included rapidly setting up and developing health and education facilities that were to have major impacts on the island's demographic growth. Hospitals, family planning centres, dispensaries and schools were built and a major programme to combat endemic diseases was launched. At the same time, actions to eradicate slums and shantytowns were started and the health and food situation gradually improved to reach a level of development comparable to that of the metropolitan departments by the end of the 1990s. This extremely rapid revolution in health was to lead to unprecedented demographic growth.

A Strong Demographic Growth Justifying the Implementation of Family Planning

Progress in health and social conditions resulted in a rapid reduction of mortality followed later by that of the birth rate. The crude mortality rate, which reached 21.0‰ in 1946, underwent a spectacular drop, reaching 8.7‰ in 1967, 6.5‰ in 1974 and 5.4‰ in 1999. "This dramatic fall was both continuous though tailed off somewhat" (Festy and Hamon 1983: 6). The substantial fall during the first years can be explained by the decline of infectious and parasitic diseases. Afterwards, advances in health were less rapid and the extension of longevity was the main cause of the drop in mortality. The number of deaths, close to 5000 per year at the time of departmentalisation, fell to reach 3800 in 1999, in spite of the strong increase



Sources: INSEE, Civil status. Estimation of population on 31/12

Fig. 10.1 Natural increase in Reunion (Sources: INSEE, Civil status. Estimation of population on 31/12)

in the population over this period. It has increased again since 2006, with the first signs of aging of the population and the higher number of deaths of old people.

Following departmentalisation, the birth rate remained at a high level due to the population's high reproductive potential attributable to its youth. The number of births underwent a marked increase after 1946. The conclusion of certain marriages hitherto prevented by the war and, above all, the hope of improved living conditions related to the island's change of status, fuelled demographic growth (Lardoux 2002). In 1946, the number of births reached a little over 9000 and increased to peak at almost 17,000 in 1965, before declining slowly (Ah Son 1996). The 1950s, then to a lesser extent the 1960s, were characterised by exceptionally high birth rates (between 40 and 50‰) (Festy and Hamon 1983). Up to the end of the 1960s, the fertility of the women of Reunion was close to the "natural" regime and reached physiological limits (between 6 and 7 children per woman). This index remains above the generation replacement threshold today (2.4 in 1999 and in 2006). Figure 10.1 provides a synthesis of the major demographic evolutions in Reunion from its departmentalisation to now. It shows clearly that from the beginning of the fifties up to the end of the sixties, the gap between birth and mortality rates increased constantly, leading to an exceptional rise in natural increase during the period.

The demographic transition of Reunion was short in terms of duration and high in terms of increase (Festy and Hamon 1983; Martinez 2001). The beginning of this transition can be traced back to 1931 when mortality started to fall, though it was arrested temporarily due to the island's economic difficulties in the post-war period.

The mortality rate fell from 31‰ in 1931 to 18‰ in 1952. At the same time, the birth rate underwent a spectacular rise to reach a record level in 1952 (51.3‰). During this initial phase of transition, the population of Reunion rose rapidly due to the surplus number of births versus deaths. This was the first time that natural increase had supplanted immigration, explaining the greater part of demographic growth. The rate of natural increase rose strongly, from 4.0‰ in 1931 to 33.2‰ in 1952. The population of Reunion increased by 30% in a little over 20 years.

The second phase, stretching from 1952 to 1967, represents the core of the island's demographic transition, and it was during this period that the "demographic explosion" occurred. The mortality rate continued to fall, from 18.1‰ in 1952 to 8.7‰ in 1967. At the same time, the birth rate fell slowly but remained high until the end of the 1960s (43‰ in 1965, 38.6‰ in 1967). During this period, the number of births increased; greatly exceeding that of deaths (16,000 births for 3500 deaths in 1967). This resulted in a strong natural increase in excess of 30‰. The population of Reunion had increased by more than half in 15 years (+ 52.5%) with an average rate of natural increase of 3%. This demographic boom has modelled the present age structure of Reunion and the impacts of this strong increase were multifold and remain very present.

The third phase of demographic transition started in 1967, but the end of the transition was delayed due to the continuing high birth rate explained by the young age of the population. From 1967 to 1980, the number of births fell, with the birth rate following a slow decline, falling from 28.4‰ to 24.2‰. The fall in mortality occurred simultaneously, leading to a reduction in the natural increase (17.8‰ in 1980 versus 21.9‰ in 1967). The demographic transition of Reunion, which could be termed "accelerated", had not reached its conclusion since fertility remained high, resulting in positive population growth.

This strong demographic growth led the French public authorities to formulate an active birth control policy at the end of the 1960s, relayed in particular by the Association Réunionnaise d'Orientation Familiale (AROF), which promoted changes in women's behaviour. The AROF has been the key component of family planning in Reunion since it was founded in 1966 (Morlas et al. 1992). AROF centres were set up progressively throughout the department, and information on family planning was diffused followed by the massive promotion and distribution of modern and efficient contraceptive methods that were the main reason underlying the strong decrease in fertility and birth rate. A change of behaviour became apparent at the end of the 1960s, with fertility rates beginning a fast and continuous decline. The total fertility rate (TFR) plummeted from 1967 to 1974, from 6.42 to 3.88, i.e. a drop of 40% in only seven years. These 15 years saw a slowdown of the progression of Reunion's population (+ 2% per year on average between 1967 and 1982) due to the twofold effect of the decline of natural increase and the massive emigration[2] of its young to metropolitan France.

[2] We use the term emigration here, although it entails the movement of individuals between regions belonging to the same national unit. Although the migration of the people of Reunion to France shares many characteristics with International migrations (distance, financial and psychological cost, etc.), it nonetheless concerns the internal mobility of a country.

The very strong decrease of fertility can be explained by a revolution in mentalities and behaviours. The desire of women to limit the number of their children was facilitated by access to modern contraceptive methods since the introduction of family planning (Festy and Hamon 1983; Ah Son 1996). Growth slowed due to the first departures from Reunion to France organised by French government services (Ah Son 1996; Rallu and Diagne 2005). These demographic changes occurred in a context marked by rapid and deep social changes in Réunion. Thus it is difficult to distinguish the share of each of the explanatory factors of this sudden drop in fertility: family planning policy, notably the action of the AROF (Morlas et al. 1992); the introduction of policy to promote emigration to France; the influence of immigration in the dissemination of new values, notably the model of the nuclear family (Squarzoni 1992); urbanisation and improved habitat (Watin 1992); economic and social development, and improved living conditions; increased autonomy for women and women's activity (Bertile 1992); advances in education (Simonin and Wolf 2003); last, several communications of the symposium Fécondité et insularité organised by the Regional Council of Reunion in 1992, focused on the determinants of the fall in the island's fertility (Conseil général de La Réunion 1992).

Increased Unemployment: The Emergence of an Emigration Policy

Migrations and the development of Reunion are historically linked. The economic and institutional determinants of migration have always been a major variable of development, either combined or associated with public training, education and employment policies. The emigration policy implemented was not only related to demographic growth but also to the considerable and concomitant increase in unemployment. The very fast rise in the total population had a major impact on the growth of the active population: the number of active individuals increased more rapidly than the number of jobs created, leading to new jobless individuals. From 1967 to 1999, the active population increased by 175%, the active occupied population and thus the number of jobs increased by 84%, while the number of unemployed rose by more than 770% (Table 10.1).

Employment and unemployment increased together, though the pace of increase for unemployment far outstripped that of jobs. Very high demographic growth and increased unemployment led the public decision-makers to implement an emigration policy. Several experiments were conceived with the objective of combating demographic growth and unemployment by getting the young of working age but unable to find jobs to leave. Using emigration as a solution to the population's employment problems is not a new practice in Reunion. As far back as the 18th century, leaving for the Seychelles and Rodrigues had been recommended as a response to the proletarianisation of the white population (Chane-Kune 1996). The "Réunionnais diaspora" had attempted to settle in New Caledonia, Mauritius and above all in Madagascar several times (Bertile and Lorraine 1996).

Table 10.1 Census data on population and employment (1967–1999)

	1967	1974	1982	1990	1999
Population of working age (15-64 yrs old)	211,641	250,180	318,279	386,296	466,290
Active population[a]	108,600	132,381	176,142	233,622	298,847
Occupied active population[a]	94,334	106,885	118,853	146,253	173,677
Unemployed	14,266	25,496	54,516	86,108	124,303
Unemployment rate %	13.1	19.3	31.0	36.9	41.6

Source: INSEE, Census data (AFD-IEDOM-INSEE 2004: 20)
[a]Active population means all people who supply labour

The idea of an emigration of disadvantaged smallholders to Madagascar was given new impetus in the 1940s and 1950s[3]. The BDPA (Bureau pour le Développement de la Production Agricole) founded in 1950 turned at that time to the large neighbouring island of Madagascar, where it intended to install the small farmers of the Reunion highlands faced with a shortage of land and fewer agricultural jobs (Palmas 2005). The SAKAY[4] scheme was set up in 1952 and lasted until 1977. Supported politically and financially by the French government,[5] the SAKAY consisted in installing migrants from Reunion in partnership with metropolitan French and Malagasy individuals to develop and exploit viable farm production. The experiment performed with the SAKAY was the first institutional attempt to manage the emigration of the Réunionnais to the outside world. Its existence was brief and it fell short of its quantitative objectives, as the Republic of Madagascar was proclaimed in 1958 and became independent in 1961, putting an end to the installation of new settlers (Palmas 2005). The project gradually lost impetus and conflicts with the Malagasies became recurrent. The migratory flow petered out in 1962.

In the early 1960s, faced with the evidence that the SAKAY was, and continued to be, incapable of providing a sustainable solution for the island's demographic problems, the French government introduced a new policy of migration from Reunion to France. Thus it set up the BUMIDOM (Bureau des migrations des populations d'outre-mer), a State-owned company. It was assigned with the task of managing and organising the emigration of the indigenous population of the DOM (Overseas Departments) to France.

[3]Three reports submitted to the authorities (1941, 1948 and 1950) mentioned the need to organise emigration to Madagascar to solve the problem of Reunion's overpopulation and respond to the difficulties of the most disadvantaged, especially the white smallholders in the highlands (Palmas 1999, 2005).

[4]The word Sakay is the name of a river and a region situated in the middle-west of Madagascar, some 140 km west of Tananarive.

[5]The BDPA received government subsidies via the FIDOM (Fonds d'Investissement pour le Développement Economique et Social des DOM) which allocated funds for setting up the SAKAY and procuring land for it in Madagascar (1200 ha).

BUMIDOM's activity can be situated as the direct extension of the SAKAY. Founded in June 1963, at the instigation of Michel Debré, at that time Deputy for Reunion[6], BUMIDOM pursued the same objectives as the BDPA except that it did not only focus on poor farmworkers but all the inhabitants in view to organising mass rather than moderate emigration. BUMIDOM was only a facet of the development policy driven by Michel Debré in Reunion. Immediately after his election as MP in 1963, it was he that concretely instigated the voluntarist policy to catch up with the social and economic model embodied by France. This development policy involving every sector of society (road, port and airport infrastructures, health conditions, education, the social system, employment, etc.), was started with priority given to solving the demographic problem by implementing a birth control policy. Consequently, the AROF's family planning centres were set up as the internal response whereas emigration to France was the external response chosen to simultaneously regulate demographic growth and attack the issue of unemployment (Gauvin 2006a).

BUMIDOM was founded at a time when Reunion was suffering from chronic underemployment and a particularly tense social climate fuelled by the campaign for autonomy led by left-wing political parties. The problems experienced by the young in finding jobs "pushed the public authorities to institutionalise migration as the main solution for combating unemployment" (Labache 2007). Thus BUMIDOM immediately targeted three objectives: demographic, economic and political. The first task was to take up the challenge of Reunion's demographic growth, qualified as "galloping" in the sixties, by getting young men and women of reproductive age to leave. In parallel, it was also necessary to solve the problem of finding jobs for the island's unemployed, by finding them one in France or finishing their education. The last objective was political. Confronted by the social unrest kindled by underemployment and the need to respond to progressive movements and claims for autonomy, expressed in particular by left-wing parties, the solution of emigration espoused by the conservatives appeared like a "safety valve" capable of preserving social peace in the DOM (Bertile and Lorraine 1996).

When it was founded, BUMIDOM's core activity consisted in recruiting and selecting candidates to place them directly in posts offered by employers in France or in vocational training courses. Another important activity performed by BUMIDOM was to encourage young people to leave, notably by encouraging applications for emigration. Full-scale communication campaigns aimed at encouraging young people to leave were launched, with numerous attractive slogans such as "go to France to find your fortune" and "find a job quickly with opportunities for rapid promotion". Thus thousands of young peoples from the DOM were encouraged to try their luck outside their home departments (Labache, op. cit.). During this

[6] Michel Debré was Deputy for Reunion from 1963 to 1988. He launched a voluntarist economic and social development policy for Reunion during the 1960s. The historian Gilles Gauvin devoted several works to Michel Debré's actions. At a conference at the University of Reunion he summarised the action instigated by Michel Debré as three major "battles": the "demographic battle", the "economic battle" and the "social battle" (Gauvin 2006a, b).

period, the "myth of France", synonymous with the upwards social mobility conveyed by BUMIDOM, acted as a magnet for the DOM populations faced with increasing unemployment (Bertile and Lorraine 1996).

These incentives for emigration were especially important since BUMIDOM's activity was based on quantified objectives planned by the decision-makers: the objectives set for BUMIDOM regarding Reunion amounted to 8000 departures per year (Tal 1976). Regarding this, G. Gauvin states that a parliamentary report dating from 1961 estimated that the island's population should be kept at 500,000 to ensure economic and social development, implying the "departure of 4,000 young people from 18 to 25 years old every year" (Gauvin 2006a, 1999). The author also noted that Michel Debré had set a target he considered as "imperative" from 6000 to 8000 departures annually at the beginning of the 1970s. These quantitative objectives were therefore planned and readjusted according to demographic forecasts and the results of BUMIDOM's activity. In order to achieve this quantitative imperative, qualitative selection criteria imposed on the applicants for emigration were gradually relaxed, thereby allowing poorly or non-qualified applicants to try the experience of emigration. This relaxation of selective criteria was partially responsible for the failure of migrants to find work.

The numbers of emigrants was to increase rapidly. According to the census of 1967, the number of emigrants was already significant. Little by little, BUMIDOM's action was to become predominant. Between 1961 and 1967, the INSEE estimated that BUMIDOM's applicants for departure represented between 66 and 70% of the emigrants (INSEE 1987a, b). This proportion rose to over 95% between the censuses of 1967 and 1974. The number of departures reached an average of nearly 4000 per year at the beginning of the 1970s. The increase was even more pronounced during the following period, with the number of departures more than doubling to reach a maximum yearly average in excess of 8000 departures between 1974 and 1982. During this period, the negative migratory balance reduced the demographic growth of Reunion by 30% (Marie and Temporal 2011). After 1975, the crisis in France and increasingly harsh criticism from the left-wing political parties of Reunion made BUMIDOM's action more difficult. Spontaneous emigration developed in parallel with organised emigration, thus the proportion of emigrants leaving with the bureau's aid fell to about 50% (INSEE 1987a).

At the beginning of the 1980s, emphasis was no longer placed on departure to France but on the integration of migrants in the receiving society (Bertile and Lorraine 1996). In 1982, the National Agency for the Integration and Promotion of Overseas Workers (ANT) was set up to replace BUMIDOM. The founding of this agency marked the official end of encouraging emigration from the DOM to France, a situation that had already begun in 1975. Contrary to BUMIDOM, the objective of the ANT was no longer to organise or promote departures from the DOM to France but to focus more on the social and vocational integration of the emigrants already present on the continent. This entailed that the emigrants conserved their links with the islands from which they came and if necessary encourage returns for those encountering the greatest difficulties. This signified a clear change of direction and the end of organised emigration as a political objective. What was important now

was to privilege the integration of réunionnais migrants in France without neglecting those remaining on the island. Thus the central role played by the public authorities in organising the flow of emigration from Reunion to France was evident.

From Emigration to Mobility: Between Imperative and Indivual Choice

As early as the 1970s the political decision-makers became aware that emigration was not an adequate response for solving demographic growth and rising unemployment. Far from being stemmed, unemployment continued to increase. Since organised emigration had not resulted in the effects expected, these decision-makers became aware that the only means of combating the problem of underemployment was to implement a dynamic demographic and economic policy in the overseas departments (Constant 1987). This awareness signalled the end of the demographic transfer of a population from one department to another in the same country. Emigration had to be an option chosen freely and left to the initiative of the populations concerned, it was no longer a political act decided, encouraged and organised by the public authorities.

A change occurred in both the political discourse and the vocabulary used. In Reunion, the word "migration" disappeared, henceforth replaced by "mobility". The word "migration" in the title of BUMIDOM itself, implied the movement from one country to another. On the contrary, the appearance of the word "mobility" evoked more specifically the movement of a population from one region to another within a national entity. The vocabulary used is important, since this notion of mobility has fewer connotations with long periods or definitive departure; conversely, "mobility" infers a more temporary dimension or in any case one that is more "reversible". The individuals arriving from the DOM are no longer seen as "migrants" but as French citizens that have moved in a transnational context (Labache et al. 2005). Thus, since the beginning of the 1980s, the concept of mobility has replaced that of migration and it has been part of the vocabulary commonly used by the population and political decision-makers for the last twenty years in Reunion. The term mobility better reflects ANT's objectives which no longer focused directly on employment in France but rather the opportunity of receiving education before a possible return to the department. The change in orientation provided by mobility policy and the creation of the ANT reduced the number of departures from Reunion elsewhere at the beginning of the 1980s (an average of 5800 departures a year).

The brake on encouraging emigration was in fact momentary, since the riots linked to the Chaudron district in 1991[7] placed the difficulties faced by the youth of

[7] In February and March 1991, unprecedented riots broke out in Reunion (uprisings, confrontations with the police, looting of shops), mainly in the Chaudron district. The event that sparked these riots was a decision made by the French Broadcasting Authority to terminate the programmes of TV Freedom (Akoz 2001).

Reunion and the generalised lack of employment to the front of the political and national stage. Once again the government and the local authorities gave strong backing to education and/or employment in France. As before, the aim was to reduce pressure on the job market by "exporting" part of the island's labour force and privileging vocational training while providing a response to the island's social movements and maintain social peace.

An Oriented Response: Assisted Mobility

The mobility policy has remained very active in Reunion since the 1990s, contrary to the other DOMs (namely Martinique, Guadeloupe, Guyane). Advertising campaigns vaunting the professional success of young Réunionnais having opted for mobility became increasingly common in the media, with encouragement for departure remaining very strong. Although individuals were free to appreciate the option of departure, the latter was frequently offered in the framework of mobility. Today, mobility is presented as an instrument in the service of Reunion's development, an opportunity for individual fulfilment and a tool in the service of finding work in France and/or after returning to the department. The objectives are very clearly linked to education and employment. The aim is to obtain training or professional experience outside, for the most part in France, before a possible return to the island. Slogans like "leave to make returning better" and "leave to obtain training and professional experience" have emerged. The possibility of return is placed to the fore and facilitated. Most "mobility assistance" schemes that take in charge the cost of departure by paying for the air fare also provide assistance for return. With the resumption of the mobility policy, the number of departures increased again reaching an average of 6800 departures per year between 1990 and 1999.

The migration of native Réunionnais is therefore to a great extent supervised and taken in charge by the public authorities. The current mobility policy and systems differ from those of the previous period: departure in the framework of mobility now appears to be a voluntary choice, a possibility offered to individuals. The many schemes available allow "free choice of mobility", meeting the needs of the largest number of people. However, the objectives remain unchanged: that of combating unemployment and promoting social and vocational integration. A political response to demographic growth and unemployment, emigration has become an opportunity for individuals to finish their education or to obtain professional experience.

The Individual and Family Determinants of Mobility

The difficult socioeconomic context of French overseas departments, marked by high unemployment rates predominantly affecting the young living in them, has not improved over the last twenty years. Young people face real difficulties in finding

lasting employment and one out of two fails to find work when launching themselves on the job market: 59.8% of 15–24 year-olds were unemployed in Reunion in 2011 according to the employment survey. This makes the job market highly competitive and stresses the importance of the mobility policy aimed at the young.

Since the extension of the principle of territorial continuity to include overseas departments in 2003, and the introduction of the mobility passport intended for students and more generally to DOM residents wishing to obtain vocational training or seek a job, the types of public aid available for departure have been considerably diversified, providing everyone the chance to leave in the framework of mobility[8]. However, not all individuals choose to migrate. Whereas the call for emigration made by BUMIDOM addressed the generation of young adults from lower class districts, for the most part poorly educated and with limited professional horizons, the most recent departures in the framework of mobility mainly concern qualified young people of working age in search of work, in addition to students wishing to continue their courses in a university in France. Calculated over the period 1999–2006 (Fig. 10.2), the global balance (-800) of the population of working age (15–64 years old) seems quite low, masking the highly complex nature of population flows (departures, arrivals, returns). The profiles of these flows by age, gender and place of birth vary in particular according to the flow in question. These departures concern young native Réunionnais (aged from 15 to 34 years old) that make up the majority of these movements (Fig. 10.2). Regarding the net balance[9] of this age group, there was a deficit of 19,000 young people for the period (12,000 men for 7000 women), i.e. a total annual loss of 2700. For those over 34 years old, the balance returned positive due to a greater number of returns. Indeed, there was a surplus + 6500 (i.e. an annual gain of 900) for the 35-64 year-old age group, with a predominant female contribution underlining the clear gender disparity of return movements (+ 4800 versus + 1700 men). However, this positive balance after 35 years old is far from offsetting the departure of the youngest. In the working age population (15 to 64 years old), more natives have left Reunion than returned to it: from 1999 to 2006, the deficit was close to 10,000 for men and 2300 for women.

The first results of the Migration, Family and Aging survey (MFV)[10] of the population aged from 18 to 79 years old gave additional information on the intensity of migration in the four French overseas departments. 47% of the native people of Reunion aged from 18 to 79 years old and living in their department, had already left it at least once for a period less than 6 months and 26% had left it for a longer stay equal to or longer than six months, before returning to settle (“returned migrants”).

[8] Since 2010, the ANT has been replaced by the DOM mobility agency (LADOM). The new agency manages most of the mobility schemes, especially those involving the vocational and initial education of adults and students, those linked to territorial continuity, cultural and sports mobility, etc. The agency now has two main missions, aiding the young in overseas departments to find professional training and job opportunities, and ensuring territorial continuity to facilitate the mobility of overseas populations (www.ladom.fr).

[9] Difference between departures and arrivals.

[10] “*Migrations, familles et vieillissement*” (Mfv) is an Ined-Insee survey (2009–2010) performed in four overseas departments. 4000 households were questioned in Reunion.

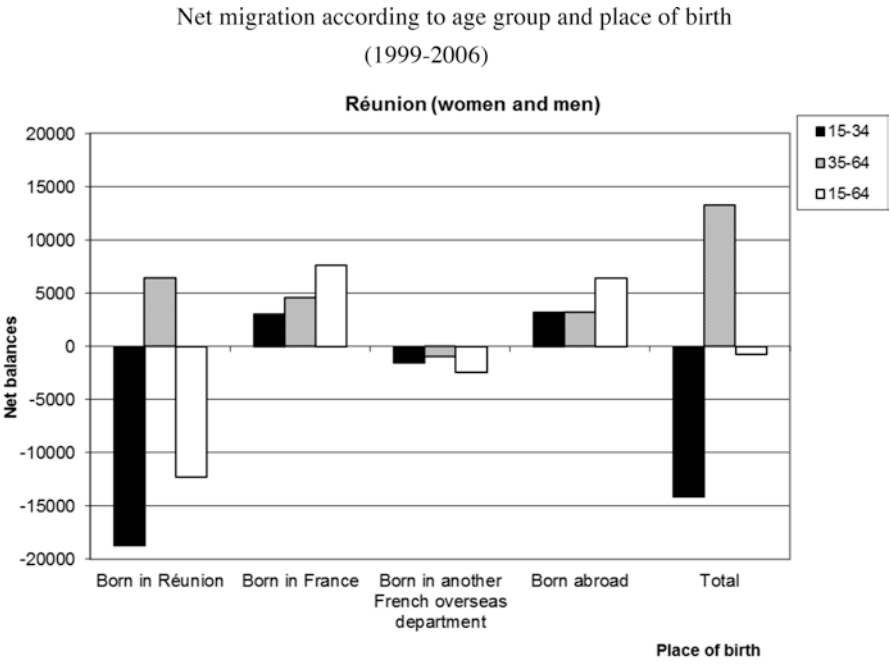


Fig. 10.2 Net migration according to age group and place of birth (1999–2006). (Source: INSEE, Population censuses - 1999 to 2006, author's calculations)

Only a quarter of the natives questioned (26%) had never left. The socioeconomic profile of the latter was characterised by considerable insecurity and with very clear contrasts with all the others: very poor education, high unemployment rate, a large number living below the poverty threshold, etc. Everything appeared to indicate that their serious economic and social problems hindered any professional ambition and thus any outlook of mobility, even for a short period (Marie and Temporal 2011).

This analysis focused on the natives of the department was not sufficient to evaluate the impact of emigration as a whole. This requires completion by studying the situation of the 105,000 Réunionnais who lived in metropolitan France on the same date (2006), a number that has increased continually since the emigration policy was first implemented under the aegis of BUMIDOM. The emigration of native Réunionnais to metropolitan France retains its original characteristic of labour migration. The age pyramid of this migration illustrates this perfectly (Fig. 10.3). Its spinning-top shape emphasises that the great majority of departures concerned the working age population: more than three quarters are aged from 20 to 59 years old. It also highlights the considerable contribution of women of working age, equal to or greater than that of men.

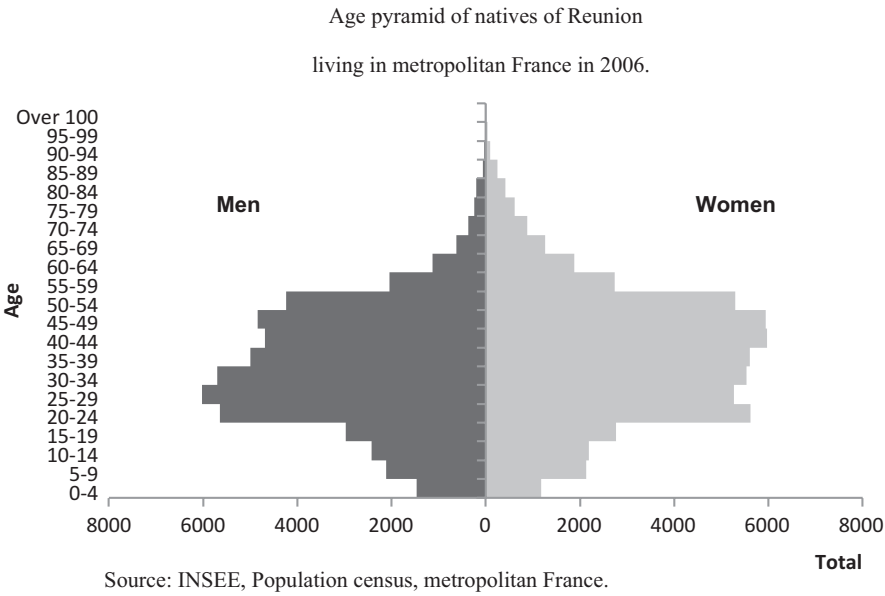
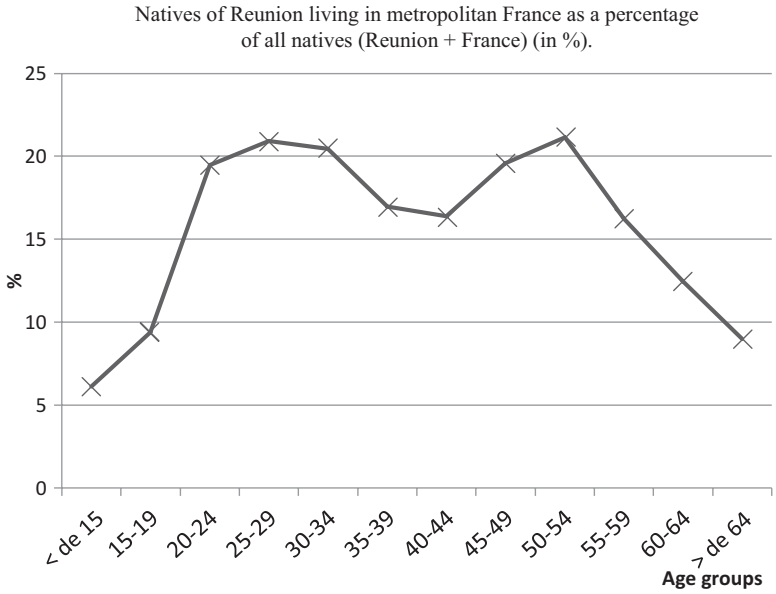


Fig. 10.3 Age pyramid of natives of Reunion living in metropolitan France in 2006 (Source: INSEE, Population census, metropolitan France)

The profile of the newly arrived (in the 5 years preceding the census) is even more edifying: the great majority is aged under 40 years old and about half are aged from 20 to 29 years old. The dynamic observed previously has not changed: young adults, with as many women as men, leave their department to find work or to be educated in metropolitan France. We cannot however neglect the lasting if not definitive installation of a large number of their elders who had arrived in previous years.

Organised institutionally, these departures reduced the numbers of fertile age groups at the peak of their demographic growth. Even though the number of returns increased, they only partially offset the impact, as the large number of migrants settling in France for the long-term remained high. This can be illustrated clearly by reconciling the census data for metropolitan France and the overseas departments. In 2007, one native of Reunion out of seven lived in France according to the census figures. For the fully active age groups that include the majority of the emigrants settled in France (15–64 years old), this ratio concerns one native Réunionnais out of five. The ratios are highest between 20 and 30 years old. Lastly, it can be seen that the many young people who left in the 1960s–1970s, when emigration was highest, and are now aged around 45 to 55 years old, have mostly remained in France. 20% of the Réunionnais in these age groups live in metropolitan France (Fig. 10.4).

The fact that employment is (along with studies) the main reason for leaving (Rallu and Marie 2004) subjects the population of Reunion to selection regarding both departures and returns. This unequal division reflects the ratios by level of



Source: INSEE, Population census 2007, Reunion and France.

Fig. 10.4 Natives of Reunion living in metropolitan France as a percentage of all natives (Reunion + France) (in %) (Source: INSEE, Population census 2007, Reunion and France)

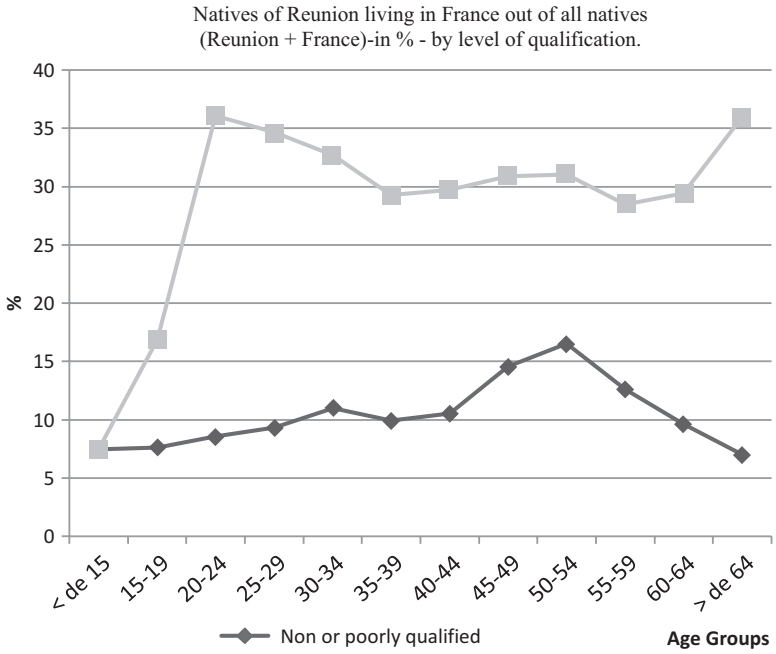
qualification and status of activity according to the place of residence[11]. In 2007, 32% of native Reunionnais university graduates lived in France versus only 10% of the "non or poorly qualified"[12] (Marie and Temporal 2011). In parallel, a quarter of the active population lives in France[13], versus only 8% of the unemployed. Regarding the youngest generations (20-34 years old), the imbalance appears even more clearly when focusing on graduates from higher education: 34.5% of them resided in France in 2007. On the contrary, there were far fewer "non or poorly qualified" of the same age group present in France: only 11% of Réunionnais. Besides its effects on the demographic structure (ages, gender and origin) of Réunion, migration still has a considerable effect on its distribution by activity and level of education (Fig. 10.5).

Thus emigration does not concern all individuals in the same way. The young, the best qualified and employed settle in metropolitan France. This selection occurring on departure is further strengthened by selection on return to Reunion. Once the effects of structure (age, gender, level of qualification, parents' social category, parents' qualifications) have been examined, the probability of having experienced

[11] This groups the natives of working age (15-64 years old), whether they live in their department or in France.

[12] Individuals with no qualification, or a primary or secondary school certificate (BEPC).

[13] Among young people 25-29 years old, this ratio reaches 28% for Reunion.



Source: INSEE, Population census, 2007.

Fig. 10.5 Natives of Reunion living in France out of all natives (Reunion + France)- in % - by level of qualification. (Source: INSEE, Population census, 2007)

a migration in the past and returning to settle in one's department is considerably higher for natives holding a qualification having passed the baccalaureate or obtained a university degree than for the least qualified (Temporal et al. 2011). Men have a higher probability of return than women.

In addition to these individual variations, the option of migration also depends on the individual's family characteristics. Those whose parents were senior managers or in the intermediate professions migrated in much higher proportions than those whose parents were employees (Temporal et al. 2011). The impact of the family determinants of migration is very clear regarding the previous migratory experience of the members of the family. The probability that a native with a close relative[14] who is currently a migrant, or has migrated in the past, will become a return migrant is two to three times higher than for a native from a family whose members have not migrated. Lastly, the family situation of individuals also plays an important role in their mobility plans. People in couples and those with children are less ready to leave than single adults without children. Family responsibilities dampen intentions to leave (Temporal et al. 2011).

[14] Parents, children, brother or sister, spouse.

Conclusion

As in many insular societies faced with the problem of surplus manpower, emigration from Reunion was the solution privileged by the public authorities to respond to demographic growth and the ensuing economic and social problems. One of the specific characteristics of this territory is that the emigration of natives from Reunion was conceived, organised and taken in charge by government services and the local authorities. This emigration policy, implemented with strong determination in the past, and which still includes incentives today, gave rise to specific measures in the form of public subsidies to aid departure. This subsidising of migration expenses by the public authorities should be considered in the light of the relation of dependence between the centre and the periphery, and which characterises the link between metropolitan France and Reunion (Domenach and Picouet 1992). Migrations have thus been the main variable of adjustment in the imbalances of labour (surplus and shortage) of these "former colonies" now become French overseas departments.

The current mobility policy can be distinguished from the emigration policy implemented during the period of BUMIDOM, since the individual is now free to appreciate the option of departure and returns are facilitated. Previously, emigration was subject to political management with quantified targets in line with the logic of "demographic transfer", whereas the current mobility policy has become a tool in the service of individual fulfilment and development. Aid for mobility is addressed to all the natives of the overseas departments wishing to further their education or seek work in France, where the socioeconomic context provides more opportunities than the local job market in which opportunities are few.

However, it is mostly the young best qualified, endowed with educational capital, who choose to leave and eventually return to their department. The least qualified Réunionnais, those most affected by the problems of unemployment and poverty, are seldom concerned by mobility schemes and are less present in France. Since they have never left their department, these "immobile" Réunionnais cumulate socioeconomic difficulties in a context where the job market is highly selective and competition between categories of the population is strong.

This chapter showed the importance of addressing different levels of analysis: macro, micro and meso. The policy implemented by the government services to combat demographic growth and rising unemployment was necessary to understand the variations of migratory flows over the period. However, this macro approach had to be completed by an analysis of the individual determinants of migration, as the decision to migrate varies considerably from one individual to another. Lastly, the impact of family determinants, which remains significantly marked by equivalent individual characteristics, showed the need to integrate the meso level in the analysis of migratory itineraries and their determinants. Thus, specific surveys, such as the Migrations Family Aging survey, which incorporated these different dimensions and made it possible to study demographic behaviours within these different levels of analysis, form particularly useful quantitative sources that complement public statistical data.

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Chapter 11
The Failure of Family Planning in Mauritian "Cités"

Sarah Hillcoat-Nalletamby

Demographic Evolution

Most of the following text was written seventeen years ago as part of a PhD research project undertaken during the 1990s in the "Cité" environment of Mauritius (Hillcoat-Nallétamby 2002). At that time, the issue of demographic change, notably population control, was still at the fore of the country's strategic development goals. The project had received the support of the United Nations Fund for Population Activities and the Mauritian Ministry of Health, indicating that the topic was recognised as relevant to the country's strategic development. Today, the offices of the UNFPA are closed since the demographic situation of Mauritius no longer warrants the support or action of this agency. Indeed, both fertility and demographic growth have been curtailed. In 1997, the total fertility rate was 2.03, but it then fell rapidly below the replacement threshold to reach 1.4 in 2012. In parallel, the annual rate of population increase, which was 1.44% and 0.80% in the 1980s and 1990s respectively, fell to 0.4% at the end of 2012 (Statistics Mauritius 2012). However, reducing fertility does not imply de facto the absence of reproductive and sexual health problems. Similar to the situation of the 1990s, by the beginning of the new millennium, despite high levels of contraceptive prevalence with nearly three quarters of women aged between 15–49 years old using a contraceptive method, in 2002 almost a third of couples were still using withdrawal, the use of modern methods having fallen to 40% (MHQL 2008: 1), whereas it had been almost 50% in 1985 and 1991 (Hillcoat-Nallétamby 2002: 56). As a consequence, in 2007 the Mauritian Government set up a programme focusing on sexual and reproductive health (MHQL 2008: 1–2). Its objective was to increase the proportion of women using modern contraceptive and

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sympto-thermal methods, reduce adolescent pregnancies, as well as the proportion of women with unmet needs for contraception (MHQL 2008: 6). Similar to the 1990s (MFPA 1993), recourse to abortion was still a problem, as was the discontinuation of contraception (MFPA 1989; Rajcoomar and Wong, 1982).

The Original Research Context

The particular context in which this research was completed was that of the "Cités". This housing stock had been built as temporary shelter in the 1960s following a series of cyclones which had devastated the island. These rudimentary infrastructures were not equipped with sanitation or running water and at the time, housed socio-economically deprived families. Although they had been designed as a stopgap measure, this housing stock was still inhabited at the time the research was completed. No precise data were available on the quality of this stock, nor the living conditions of its inhabitants in the 1990s, but more recent national-level statistics show that this type of shanty town dwelling has declined. For example, the proportion of housing built with corrugated sheet metal fell from 8 to 4.5% between 2000 and 2011 (Statistics Mauritius 2011: 4). Dwellings were also better equipped, those with running water inside rising from 84% to 94% over this period with similar increases for dwellings equipped with a bathroom and toilet with running water, and with interior kitchens (Statistics Mauritius 2011: 8). The previously widespread use of wood, coal and kerosene for cooking food was now rare. In 2011, preliminary census results highlighted that 1400 dwellings were still not equipped with basic amenities (no running water).

Economic Development Since the 1990s

In the 1990s, the country was experiencing a period of strong growth and economic change. During the 1960s and 1970s, the impact of family planning measures had been felt (Xenos 1977) and the economy, which up until then had been based on the sugar industry, was undergoing radical transformation, with investment being redirected to tourism followed more recently by telecommunications (Chittoo & Suntoo 2012). With the emergence of a knowledge-based economy, Mauritius has now positioned itself as a strategic centre by establishing links between telecommunications, financial services, transport and fishing (Greig et al. 2011). In terms of its economic prosperity, in 2005 the GNP of Mauritius was 300% higher than that of the Africa region and 13% higher than the world average (Statistics Mauritius 2009: 4–5), and by 2013 had increased by 3%.

Nonetheless, today the economic success of the liberal policies implemented in Mauritius remains fragile in a context of fierce global competition. Other countries in the region, notably Madagascar, have become more competitive in terms of productivity due to cheaper local labour and the use of migrant workers, and they offer better investment conditions (NESCM 2013). The country has however succeeded in reaching the UNDP Millennium development objectives (Statistics Mauritius 2012), remain-

ing well placed in the Human Development Index ranking compared to other countries of Sub-Saharan Africa. The Mauritian Government continues its investment in developing rural regions in particular, and provides free secondary and higher education.

This progress notwithstanding, socio-economic inequalities have become apparent. The Gini coefficient for example, rose from 0.371 in 2001–2002 to 0.413 in 2012, reflecting increasing inequalities in the distribution of household incomes (Statistics Mauritius 2013). In parallel, by 2013 unemployment rates had increased to about 9% for the total population of working age, and 40% for those aged 25. The Government has acknowledged the country's problems of poverty and social exclusion, notably through the establishment of its Ministry of Social Integration (Chittoo and Suntoo 2012).

Rupture and Continuity

What factors then stand out in terms of the changes and ruptures that have occurred since the research undertaken at the beginning of the 1990s? Generally, improvements in the quality of life have been progressive and sustained as noted previously. From a demographic perspective, reducing fertility per se has ceased to be a concern, but in terms of contraceptive use, despite high levels of prevalence, there is still heavy reliance on withdrawal, and estimates indicate that abortion is still used as a means of birth control. More recently, the Government has drawn attention to increases in the proportion of adolescents aged 15–19 pregnant or having a first child (Republic of Mauritius, 2015).

With below-replacement fertility levels, these declines have shaped the way for population ageing, and a more recent pro-natalist message from the country's politicians that it must now find ways of addressing these age structural shifts by increasing annual birth rates (Republic of Mauritius, 2015). In Mauritius as in many other countries, the consequences of population ageing are likely to be felt more acutely by women, partly because they outlive men and risk poverty, but also because they have only recently become more fully integrated into the formal labour market. Population ageing also poses challenges for health, housing and social services, and in a society where the care of older people was previously the domain of the family, the changing nature of intergenerational relations calls into question the robustness of kinship solidarity as a basis for the provision of informal social care (Hillcoat-Nallétamby 2010). As yet, these questions have not been the subject of any extensive research (Suntoo 2012).

Going Back in Time – The Other Side to a Success Story

In 1991, Mauritius received the United Nations Population Award in recognition of the efficiency of its family planning programme launched in the 1960s. The average annual rate of population growth had been 3.12% in 1962 before falling to less than 1% in 1990 (0.80%). The progressive control of population growth was attributed to

the country's family planning programme, to the later age of marriage of Mauritian women and, to a lesser extent, the effects of its emigration policy. During the 1980s however, certain changes in contraceptive practices led national leaders to question whether flaws existed in its population policy, notably in terms of its family planning services, which hitherto had not been the object of scrutiny in terms of their role in achieving the demographic goals set by the Government. Four problems were identified: the discontinuation of contraception by women registered with family planning centres; the use of withdrawal as a means of birth control; the choice made by certain couples to practice no birth control method (neither modern or traditional); and recourse to abortion.

On the basis of these observations, my research was undertaken amongst two, purposively selected rural and semi-urban "Cités" populations living in temporary housing stock which had been erected following the damage caused by cyclones in the 1960s (Hillcoat-Nallétamby 2002: 102). The main aim of the research was to explore the socio-cultural and economic factors influencing the take up of contraception amongst these economically deprived populations, using a mixed-methods approach previously implemented in Senegal (Charbit et al. 1994). At the time of this research, only one other study about life in the "Cités" populations of Mauritius had been undertaken (Desforges, 1970). The socio-economic deprivation of this context was identified in terms of socio-demographic factors at the level of families (housing conditions, large families) and individuals (low level of education, conjugal instability).

One key reason for selecting this research context was that contrary to the rest of the country's population, contraceptive use was at the time, thought to be lower in the "Cités" populations than amongst other groups.

The research posited three possible explanations for this:

- a disadvantaged socio-demographic environment which prevented these communities from benefitting fully from the social and health services located in the "Cité" context or elsewhere;
- a lack of knowledge and understanding about elementary notions of physiology and health, leading to the proliferation of rumours about contraceptive side effects, and greater risks of discontinuation;
- a disparity between the objectives and resources of family planning service providers and the expectations of the populations of the "Cités".

Cumulative Socio-Demographic Disadvantages

The two "Cités" populations which were studied (Cité A: 321 inhabitants, of whom 74 were women aged 15–49; and Cité B: 554 inhabitants, of whom 163 were women aged 15–49), were characterised by several cultural and socio-demographic disadvantages compared to the village and district level populations to which they belonged: their dwellings were of poor quality (e.g. heavy reliance on corrugated sheeting for roofing and walls); a significant proportion lacked basic sanitation

facilities (e.g. at least 20% of households did not have any bathroom) and they were more over-crowded. In terms of individual characteristics, the level of education was lower; partnerships or marriages were unstable; and fertility was higher than the national average (Hillcoat-Nallétamby 2002).

Taking as an example the living arrangements, these had changed little since the 1960s (Benedict, 1961) particularly in Cité A, although in both contexts households had become more complex through the addition of "satellite" households. Young adult children often lacked sufficient financial resources when marrying or starting co-habitation with partners, so were obliged to set up home in their parents' courtyards where they could build small dwellings, thus densifying the habitat. Women living in Cité A in particular, spent a lot of time on domestic tasks as they were still heavily reliant on fuel sources for cooking which required preparation (e.g. wood or charcoal). When asked what they would most like to change in their lives, most had expressed the desire to have a larger house equipped with an inside bathroom and a kitchen with running water.

In terms of contraceptive behaviour, in each Cité, between 61% and 65% of women in union (Cité A: n = 30; Cité B: n = 54) were using contraception compared to a national-level prevalence rate of 75% (MoH 1987). Amongst them, about 8 out of 10 in Cité A were using modern methods (hormonal and barrier methods), the remainder using either withdrawal or the symptom-thermal method. The picture was quite different for Cité B where only 5 out of 10 were using modern methods, with 3 out of 10 reliant on the symptom-thermal method and just under 2 out of 10 withdrawal. This meant that over a quarter in each Cité had an unmet need for contraception – they did not wish to have more children but were not using a reliable form of birth control.

Despite the fact that the health centres offering family planning services were only a few minutes away from the "Cités" and were permanently staffed, staff working there recognised that one of the main problems hindering the efficiency of these services was the fact that women living in the Cité environment were very occupied with domestic chores, which meant they had little time to spare for consultations. In reality, whilst a lack of time would certainly not have been the sole cause of irregular or non-use of contraception, the daily activities of these women were governed by relatively rigid domestic routines, accentuated by their rudimentary living conditions, all of which contributed to difficulties in attending clinics at prescribed times. In sum, prioritising visits to family planning clinics over the demands of daily domestic responsibilities would not have been a real choice for these women.

Religion, Marriage and Contraceptive Practices

The Catholic Religion

Although Mauritius is a multi-religious society, the populations of Cité A and B encompassed either Catholics or those of Hindu faith (84.6% Catholics in Cité A and 61.0% Hindus in Cité B). Qualitative interviews with Catholic women

highlighted the challenges they faced with marital problems and the impact this could have on contraceptive use. The main reasons mentioned for the break-up or instability of partnerships was primarily the violence or infidelity of men, leading to inconsistent use of contraception whilst couples were apart. For these women, the challenges of unstable relationships did not work well with the recommendations of the Catholic Church for the use of natural, symptom-thermal methods (Action Familiale, 1988); this approach to fertility control, requiring a long term commitment by both partners to ensure its effectiveness, had been recognised by the Church as an acceptable form of birth control in the context of the country's national family planning campaign.

This notwithstanding, at the time of data collection in the Cités, only 3 women reported using this method. Interviews showed that although this low take up did not reflect a rejection of natural birth control per se, and was seen as perfectly compatible with the women's personal religious beliefs, they recognised that such practices were not compatible with the realities of conjugal instability. The ongoing incompatibility between religious doctrine and the realities of unstable relationships placed many of the women in situations of personal conflict and fear of reprimand, some to such an extent that they were reluctant to ask for information about the symptom-thermal method for fear of being found to be users of modern methods.

Hinduism

Qualitative interviews revealed that the regulation of birth control for Hindus could be influenced by a set of cultural values shaping the organisation and management of social roles. An interview with a young Hindu woman in the process of preparing for her marriage reflected this well. When asked whether she wanted to have children following her imminent marriage, the young woman answered that her parents had planned the date of the marriage for a long time, but she was unsure whether it would correspond with her menstrual cycle. This was a significant consideration, she explained, because as a Hindu woman she would not be permitted to go to the temple during menstruation. She had therefore decided to use the contraceptive pill before marriage on a continuous basis, not as a means of birth control, but as a way of controlling the timing of her menstrual cycle and to avoid any conflict with her marriage ceremony. It was her mother who had suggested this solution, something she herself had learned from her own mother, one of the first women in the village to have taken the pill. The importance of Hindu cultural values would also play a part in her subsequent decisions about the timing of her own pregnancies and use of contraception; she would have to postpone pregnancy and childbirth until her older brother who was also to marry shortly, had had his first child. Had this study participant not participated in a qualitative interview, she would have been recorded in a classic demographic survey as a contraceptive user, and her answers to questions about desired fertility and future use of contraception would have been considered incoherent.

Perceptions of the Body and Gender Relations

Rumours About Contraception

Individual interviews with women showed that one of the reasons for the irregular practice or discontinuation of different contraceptive methods was the fear of side effects, with poor knowledge of the female anatomy and the menstrual cycle contributing to the proliferation of rumours about their side effects. During fieldwork, women in the Cités had recently received a new brand of contraceptive pill *Ovrette* distributed free of charge through their local family planning clinic. This particular brand of pill, and the only one available to them at the time free of charge, had to be taken on a continuous basis and could have the effect of supressing menstruation or stimulating irregular bleeding. Using this pill raised two problems for the women. First, they did not understand why it had to be taken continuously which they found very demanding. "Too tired" to adhere to this, some had adopted different practices: taking two or three pills the same day and nothing the following days; using the pill only on the days when they were sexually active; or taking several doses simultaneously to make up for any days missed. Some were also concerned about the effect that this pill had in supressing menstruation because they thought this would led to an accumulation of blood in the uterus ("cage bébé" in Créole), giving them a sensation of being bloated. During interviews, women used the créole terms for stomach and uterus interchangeably, and when prompted on this, some said they understood that the digestion of food and menstruation occurred in the same part of the body. Women also rationalised headaches, vertigo and weight gain as the consequence of the retention of the pill in the stomach. Although a recognised side effect of some contraceptive pills, they did not associate weight gain with poor dietary patterns. Troubled by their perceived and lived experiences of the side effects of this particular brand of pill, some had decided to purchase other brands available in pharmacies, on the assumption that paying for them would ensure a "better" contraceptive pill without side effects. Whilst this option did empower women to exercise choice, it nonetheless carried with it the possibility of other complications because at the time they could be purchased without a medical prescription or examination. Furthermore, given their economic impoverishment the long term cost of purchasing the pills would also have become prohibitive over a sustained period of time.

Similar concerns were mentioned regarding the use of hormonal injections, the coil and condoms. The latter method was frequently rejected by male partners, or because the women did not like to use the contraceptive barrier creams with them which they found painful, and believed could cause burn abrasions to the vaginal area. Some also voiced the fear that the condom could enter, and remain lodged in the "cage bébé".

In sum, these qualitative insights illustrate how the experience of side effects associated with the use of modern contraception can fuel often erroneous perceptions and representations which are then proliferated through rumours at the

community level. Some of the explanation for this particular social construction of the fertility control experience stems from a lack of knowledge about the female anatomy, as well as an incomplete understanding of the effective use of modern contraception. What this pointed to was a need for much more investment in family planning education campaigns which were sensitive to the cultural and socio-economic profiles of these particular populations.

What the Men Think: The Image of the "Woman Star"

Undertaking individual or focus group qualitative interviews with men proved difficult in the Cités communities, but with the help of a local family planning worker, it was possible to bring together a group of twenty adult men of varying ages. When asked why they had been reticent to participate in the research, it became clear that the presence of a Caucasian, female researcher (myself) had initially been a barrier. Communication with the community beyond the Cité environment therefore appeared genuinely compromised for these inhabitants because of the importance they placed on ethnic and gender identities.

Once the male participants had engaged in the discussion with the researcher and family planning worker, it became clear that the majority were in favour of "family planning methods" because they recognised they helped to avoid poverty. This notwithstanding, the men harboured fears about their effect on the health and well-being of their partners. The pill for example they considered "un mauvais medicament" (a bad drug) because it could lead to health problems. The concerns they expressed about each method echoed those mentioned by the women in the Cités, although they were much more troubled by use of the contraceptive pill and hormonal injection; it was unhealthy they considered, for women not to menstruate. They also found that their partners could not work as effectively in the home with their domestic chores because of headaches and general anxiety, both of which they considered to be direct side effects of the contraception.

After further probing, the men also noted that they did not like their partners to gain weight as this detracted from the popular sitcom representation of women as beautiful and slim. Similar to the interviews with the women, the men in the focus group did not make any link between diet and obesity, but were readily accepting of the idea that it was linked to contraceptive use. During their interviews, the women had also frequently alluded to the importance of maintaining physical attractiveness (regardless of cost and time) as a means of ensuring their partners remained faithful, and to bearing their children as a means of avoiding marital disruption.

A Poorly Adapted Supply of Contraception

An important component of the research was to understand whether the supply of contraception and family planning information was adapted to the milieu of the Cité. For women currently or previously using contraception, in Cité B similar proportions (about a third) had first learnt about family planning either through informal networks of friends, family and neighbours; the media, schooling or formal family planning services. In Cité A, the situation was different, with over two thirds relying on media or schooling and less than 2% on formal service providers. For the actual supply of contraception however, the majority of women in both Cités (72% and 62% respectively) were reliant on formal services, but well over a quarter in Cité B (and 7% in Cité A) sourced methods themselves (either using withdrawal or purchases from a pharmacy).

Part of the mixed-methods approach adopted in this research had involved the researcher spending extensive periods of time in the family planning clinics observing interactions between staff and clients. These observations generally revealed a very functional approach to service delivery (e.g. blood pressures checks and prescriptions) with very little time being given to addressing client queries, concerns or their efforts to obtain more information. Discouraged by the lack of opportunity to talk to the physician, some women had decided to discontinue a method until such times as they could receive more information and advice.

This shortfall in information and advice aspects of service provision was a significant finding, given the broader context of community-level rumours about the negative aspects of modern contraception, which interviews with women and men had so clearly highlighted. Furthermore, any desire to change methods was frequently not met through the formal service channels. At the time of the research, the UNFPA funded contraception through government family planning centres by subsidising the cost of the modified sympto-thermal method provided through the Catholic association *Action Familiale* or the provision of hormonal injections (*Depo-Provera*). The other contraceptive methods available at the time were donated in kind by USAID (pills, condoms, coils, spermicides). The variety in the supply of contraception at any one time was therefore determined by donations or subsidies. As this research showed with the example of the side effects of the contraceptive pill *Ovrette*, the choice of method did not always match client preferences. This meant that family planning service providers were often faced with a situation of inadequate supply, and hence obliged to advise their clients to turn to the local private pharmaceutical sector.

As the fieldwork progressed, clear evidence emerged of an unmet demand for more information and advice about contraception. First, women in both Cités approached the researcher very frequently on the subject, particularly to ask about the pill and hormonal injection. At one point, they asked her to speak to their local family planning clinic staff on their behalf to seek more information about the menstrual cycle and the female anatomy. Second, some wanted the information, but had been hesitant to approach the service providers if they were catholic either because

they were cohabiting but not married, or were using contraceptive methods not recommended by the church. Third, some had become aware that several other types of pill existed, either because they had come into contact with them through their work environments, for example in the hospitality industry, or worked as domestic staff for the wealthier Mauritian families; or had seen them mentioned in French TV programmes broadcast in the region. Thus they knew that it was possible to obtain brands other than those supplied by the government-run family planning centres.

Family Planning, Deprivation and Social Exclusion

What do these findings highlight with regard to the three postulates advanced at the outset of the research?

The first postulate was that the socio-economic characteristics of the Cité environment and its populations acted to marginalise these communities from the rest of the village and the district in which they were situated, and prevented them from benefiting fully from the social and health services available on site and elsewhere. This postulate was evidenced through the data collected on the living conditions in the Cités; poor housing, lack of space and basic amenities such as running water, meant that the women had very little time to devote to the schedules of family planning visits offered in the local health clinics as their time was taken in organising and managing the rudimentary conditions of household life.

The second postulate was that a lack of elementary knowledge about human physiology and health could be a key contributing factor to the proliferation of rumours about side effects, leading to low levels of contraceptive use or increased risk of method discontinuation. Interviews with women and men in each Cité confirmed this. There were significant concerns about the side effects of different contraceptive methods, exacerbated by a lack of knowledge and misconception of the female anatomy, a clear example being their frequent representation of the "cage bébé" or uterus as encompassing the entire abdominal cavity. Others demonstrated a lack of understanding about the correct and regular use of modern contraception, notably the pill; whilst others assimilated their use with personal weight gain, something which both genders saw as incompatible with the images of women portrayed through media and to which they aspired.

The final postulate was that a disparity existed between the objectives and resources of family planning service providers and the expectations and needs of the women and couples in the Cités – in other words, a disparity between the supply and demand for birth control. As for demand, although the majority of Cité A dwellers were catholic very few in fact used the natural methods promoted by the ecclesiastical authorities as they required couples to remain monogamous and practice the method together, requirements which many of the residents themselves recognised were far from the reality of their lives. Furthermore, women could not fully benefit from the information and training available about the symptom-thermal method

either because they were compromised by time or feared being judged because some were using modern methods rejected by their religion.

For the question of supply from government run services, the research highlighted inadequate consultation time, coupled with lack of choice of different pill brands, which together, could lead to unmet demand and discontinuation of practices or purchasing expensive brands from the private sector.

Together, these challenges of family planning supply and demand experienced by the Cités populations were perceived by prominent members of the village and district communities who had been interviewed as part of the research (e.g. local government district representative) as reflective of a broad pattern of socially dysfunctional population groups. This was mentioned in some of the more in depth qualitative interviews with Cités inhabitants, who felt that such attitudes perpetuated their social isolation and marginalisation from the broader village and district communities to which they belonged.

To conclude, findings from this research suggest that multiple socio-economic disadvantages, coupled with the influence of cultural and religious factors, have together influenced contraceptive use and discontinuation in the two Cités population studied. The mixed-method approach adopted has enabled family planning practices to be seen as a multi-faceted and complex phenomenon. Data collection at the meso-level of the community and micro-level of the individual have added insights which would otherwise have been lost through reliance on population-based, quantitative data collection approaches such as the standard contraceptive prevalence surveys. The latter are nonetheless vital for the broader contextualisation of the meso- and micro-level findings from this study.

There are however, several challenges in developing this type of mixed-method approach to data collection and analysis, not least the need to train local inhabitants familiar with language and cultural contexts, rather than relying on researchers who will be unaware of many of the context specific constraints and realities influencing their fieldwork experience. Perhaps most important for the demographic community, is that this research, along with other chapters in this volume, point to the necessity for inter-and cross-disciplinary collaboration between demographers and researchers from other fields if we are to more fully embrace the multi-dimensional nature of contraceptive behaviour in different settings around the world.

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Chapter 12
Young People's Ambiguous and Complex Responses on HIV/AIDS in Cameroon

Lucas Tchetgnia

The Challenges of the Combat Against HIV/AIDS

Cameroon is one of the African countries that have suffered most from HIV/AIDS. The combat against the pandemic, and notably the responses proposed (abstinence, fidelity, condoms, voluntary screening for AIDS) have represented a primordial political, health and social challenge. The data used here were collected in the framework of a socio-anthropological study whose main aim was to understand the rationales of the modes of protection or, on the contrary their absence, used by young Cameroonians against HIV/AIDS. The epidemic has unsettled and called into question ways of doing things (transactional sexuality, gender relations) whose implications were up to then rarely hazardous in terms of morbidity for individuals, couples and society as a whole. The practice of HIV screening and condom use thus became vital factors in the fight against this pandemic. Here, we examine the reactions of young people to the awareness campaigns implemented to gain the acceptance of the population, by identifying the factors that prevent populations from heeding the warnings announced by the medical profession. Why forego the "rational" protection of wearing a condom despite the images disseminated of the disease and death linked to HIV/AIDS? What are the questions asked in terms of negotiation between partners regarding screening and condom use? What are the effects of poverty in the establishment of sexual relations? We focus in particular on the positions and justifications expressed by young people to learn of their practices and their reluctance to change them. What "tricks" and "ploys" do they use to overcome the risk of disease?

Before entering into the socio-anthropological analysis of young people's attitudes and perceptions, we first present the epidemiological, political and social

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context of Cameroon. We then explain the approach taken and the methodological choices guiding this survey performed between 2004 and 2006 in Cameroon. Although the situation has certainly changed since then, the plurality and complexity, if not to say ambiguity, highlighted by the survey of the responses of young people to the policy implemented to combat HIV/AIDS, remain pertinent.

The HIV/AIDS Epidemic in Cameroon

The Epidemiological Context

HIV/AIDS emerged in Cameroon at a time when the economic crisis and its consequences were acute. The rapid deterioration of the economic situation, following strong growth between 1965 and 1985, was accompanied with an increase in poverty and socioeconomic inequalities (INS 2003) in both rural and urban areas (Eboko 1999). This situation, in which extreme poverty and extreme wealth cohabited, led to an exodus of rural youths to urban areas, the emergence of shantytowns, greater urban anonymity and the weakening of social control and certain useful ancestral customs. The two Structural Adjustment Programmes (SAP) concluded for Cameroon in 1988 and in 1991, with the International Monetary Fund and the World Bank, aggravated the social effects of the crisis. In the framework of the SAP, the number of civil servants was cut while other civil servants were obliged to accept drastic salary reductions. The health and education sectors were those, which suffered most (Eboko 1999: 124). By displacing the burden of adjustment onto the shoulders of the most disadvantaged to the benefit of multinational corporations and the elites, the SAPs strengthened social inequalities by weakening the poorest classes of society (Ela 1994).

At the time of the survey (2004–2006) Cameroon was undergoing a generalised epidemic. Seropositivity increased from 0.5% in 1987 to 6% in 1998. The average prevalence of HIV in the young from 15–24 years old was 3.2%, although a significant difference was observed between young women (4.8%) and young men (1.4%). This rate corresponded to a male/female ratio of 3.4, signifying that, in this age group, 340 women were infected for 100 men. The ratio for this age group was twice as high as that of the entire population from 15–49 years old (ratio of 1.7) (Barrere et al. 2005: 313). Prevalence increased very quickly with age, especially for women: from 1.6% for women from 15–17 years old, it rose to 5.7% in the 20–22 year-olds, then reached a maximum of 11.8% in women aged 23–24. The progression was less rapid for men: less than 1% of men of 15–19 years old were seropositive versus 2.5% for men aged 20–24. (Barrere et al. 2005: 313). We will return to the sociocultural context of gender relations and sexuality later in greater detail.

Almost all the cases of AIDS were contracted through sexual relations (90%). The economic, medical, psychological and social impacts of AIDS are multiple. The disease mostly affects the sexually active population 15–49 years old), and thus also the most economically productive age group. The consequences affect every

area of activity. The loss of young adults saps the quantity and quality of productive labour. This is further compounded by the high cost incurred by the disease, and that of taking in charge orphan children and the children of sick parents. Although demographic transition is far from having reached its end in Sub-Saharan Africa[1] (Guengant 2007: 61–63), the proportion of young people in the population remains significant and their attitudes regarding sexuality have major consequences (Petit and Tchetgnia 2009: 205).

Young people aged from 15–24 years old represented 20.4% of the population in 2004 (source INS 2006: 35) while the prevalence of AIDS at this time was 4.8% in women and 1.4% in men. Their demographic weight is considerable but hardly represented on the social and political levels. This meagre showing in terms of representation is reflected by policies that fail to recognise their expectations regarding sexuality.

The combat against AIDS in Cameroon is part of a context greatly influenced by the economic situation, which on a daily basis means massive unemployment[2], poor health for the population, a context of disease and uncertainty, a deficient health system characterised by "inhospitable" medicine, to use the expression of Yannick Jaffré and Jean-Pierre Olivier de Sardan (2003: 3), and a ratio of medical staff to population that remains below the norm of one doctor per 1000 inhabitants set by WHO (Barrere et al. 2005).

Emergence and Implementation of the Policy to Combat HIV

The first cases of HIV/AIDS were declared in Cameroon in 1985. The population was informed very rapidly through radio and television programmes. Knowledge of the existence of this new disease terrified the population, especially so as it is transmitted almost exclusively through sexual relations. Although the practice of sex is a basic and structural component of any society, it is held in high esteem traditionally in Cameroonian society. It allows the head of the family to have many descendents and free labour to work on the family plantation, and to ensure their security in old age in a society without any social security system. Having many children is interpreted as a sign of good health, wealth and success. Thus sexual behaviour is expected and respected.

[1] According to Guengant, for the period 2000–2005, Central Africa, the region in which Cameroon is situated, is characterised by a crude mortality rate of 18‰, a crude birth rate of 46‰, and a total fertility rate of 6.2 children per woman. Life expectancy at birth is only 46 years. However, the annual growth rate is 2.8%, which will lead to a twofold increase of the population in the next 25 years.

[2] According to the Surveys on Employment and the Informal Sector performed in 2005 and 2010, the rate of activity of the population of 10 years old and over in 2005 was estimated at 72%, a figure which fell to 69% in 2010. About 76% of the active population occupied in 2005 and 70% in 2010 were in a situation of global underemployment, i.e. they work involuntarily, meaning that they work less than the minimum weekly working time of 35 hours, or they earn less than the hourly minimum wage (Barrere et al. 2012).

HIV/AIDS has shaken the sexual perceptions and practices of Cameroonians. It progressively dictates new practices (fidelity, abstinence, wearing condoms, screening for HIV), which many are unaccustomed to. Biomedical science has inveigled itself into the intimacy of relations and imposed behavioural norms in the form of "*good practices*[3]". Cameroon was one of the first countries of Sub-Saharan Africa to launch actions to eliminate the threat of HIV/AIDS. The Ministry of Public Health, in partnership with community associations, set up information, education, and communication campaigns aimed at the general public and target populations (men in uniform such as soldiers, sex workers, truck drivers, etc.). Cameroon organised the AIDS Monitoring Committee as early as 1985, prior to the first detection of a case of AIDS, well before the National Campaign to Combat AIDS (PNLS) was set up in 1987 under the supervision of WHO.

Therefore the 1986 initiative of the World Health Organisation's (WHO) *Global Program on Aids* (GPA) met with no resistance from either the administration or politicians. On the contrary, it provoked a favourable reaction from the medical personnel of the Ministry of Health whose Health Division took in charge the issue of AIDS (Eboko 1999: 125). Despite the fact that the public authorities took stock of the seriousness of the epidemic at an early stage, they were gradually faced with improvisation and a real lack of coordination between the different actors in the field. With hindsight, it is apparent that one of the mistakes made by the institutions involved in the combat against HGIV/AIDS was not to have relied on research on perceptions of the disease and sexuality within the population. Far from calming anxiety, the first slogans aimed at the public kindled it (*"AIDS kills"*, *"AIDS does not forgive"*); likewise the brochures distributed ("*Practical advice for avoiding AIDS, practical advice to avoid death from AIDS"*) (Beat-Songue 1993). The reactions of the population were manifested in three types of defence: denial of the disease, relativisation of the risk and rejection of protective methods.

In the absence of appropriate political responses to reduce the incidence of the disease, rumour and suspicion progressively instilled doubt in the population and contributed to alternative messages on AIDS. Thus it was accused of being the *"disease that comes from the Whites"* and "*the disease of prostitutes, homosexuals and tourists"*. This led to strengthening the idea held by the public that any person outside these categories considered at risk was not concerned by prevention. Thus it was easy to stand back from these categories which all reflected the construction of otherness, the image of foreigners, and even strangeness.

Policies to combat HIV/AIDS suffered from a lack of pragmatism in the way they were implemented. The offer of service was not always in phase with the real requirements of the population. The young, especially those not living in couples, were hardly involved at all as actors in the prevention campaigns. The programmes were applied classically for unmarried couples/legitimately married couples,

[3] The expression "good practices" means conduct considered vital by most professionals in a given domain and which can be found in the form of *guides to good practice* (GGP). Regarding public health, good practices mean conformity with norms and recommendations favourable for health. This notion implies a prohibitive and moralising dimension insofar as people who fail to conform are considered as not having acted for their own well-being.

whereas for transactional sexuality the giving of money is an essential dimension of gender relations. It was given little importance, if not totally obscured in the anti AIDS campaigns, whence a gap between the aspirations of the young and the provision of information to spread awareness. This was certainly one of the reasons why these policies were unable to attract the adhesion of the young. The gerontocratic dimension of political power in Cameroon excludes the young from consultative and decision-making bodies, thereby contributing in a certain way to eroding and dissuading their adhesion to the responses proposed.

Gender Relations and Sexuality

Early sexual relations are a major problem for young people due to the risk of unwanted pregnancies, sexually transmitted diseases and AIDS, in this population that has not yet mastered protection and which is ill prepared to convince often older sexual partners to use condoms. The social implications in terms of early marriages and school dropouts negatively affect social well-being.

Sexual relations are considered as being early, especially for girls, if they occur "before the age" socially recognised as that at which a woman can marry (15 years old). Cameroonian society defines childhood as being the period from birth to 15 years old. The age factor is not placed to the fore regarding religion. Sexual relations are also considered "early" when they take place before marriage. The Church exhorts young people to remain "pure" up to marriage. Virginity is highly considered by certain young practicing Christians, particularly in revivalist Churches. Regarding tradition, precocity is above all evoked in relation to puberty. Any sexual relation that takes place before the advent of the first menstrual period is considered early insofar as it is the indication that a woman is able to conceive. According to Barrere et al. (2005), about a quarter (23%) of men from 15–24 years old had had their first sexual relations before reaching the age of 15. Furthermore, of the 18–24 year olds, 82% had their first sexual relations before reaching the age of 18. Contrary to women, these data provide no indication of difference according to place of residence and, from the standpoint of education, the best educated men are proportionally more numerous in having their first sexual intercourse before the age of 15: 25% versus 10% for those with no education (Barrere et al. 2005: 287). If we focus only on women from 18–24 years old, most of them (88%) had their first sexual relations before the age of 18. Young women from rural areas aged 15–24 (43 %) and those without education (56%) represented the highest proportion of those having had their first sexual relation before the age of 15 (Barrere et al. 2005: 286).

Although early sexual relations concern both genders, the early nature of these is most often emphasised for women. Indeed, it is the sexuality and bodies of women that are most influenced by social values. In the case of young women, early sexual relations are often initiated by older sexual partners in the framework of transactional sex (exchange of money, gifts, goods and services in return for sexual relations). In a context of impoverishment in which young girls are not necessarily taken in charge by their families, there is a great temptation to turn to older

men to cater for their needs (Tchoutchoua Bonjawo 2007). This solution is made all the easier as these older men approach adolescents because of their virginity, or their freshness in terms of exposure to sexual relations, as they esteem that it guarantees the absence of sexually transmissible diseases. The precocity of starting sexual life is associated with entry into marriage. Thus 22% of women aged 25–49 at the time of the survey were already in union before reaching the age of 15, whereas ruling no. 81/062 of 29 June 1981 set the age of marriage at 15 years old for girls and 18 years old for boys. More than half the women (54%) had already been in union before the age of 18 (Barrere et al. 2005: 111).

Young people have an ambivalent relationship with their bodies. It is perceived as an arm of seduction and a perishable good at the same time. Precautions regarding protection include the physical appearance of the partner. A body in good health does not show the ravages of HIV/AIDS: it must not be thin or covered in the "strange blotches" associated with the symptoms of the disease. As a weapon of seduction, the body is enhanced by the care taken in choosing garments. Young women are constantly worried about their physical appearance. During the interviews they expressed their fear of aging and of being downgraded in the seduction market. This relationship with their body drives them to consider it as a precious good that any man who wishes to make use of it must show it respect. Thus men must constantly display their consideration for this bodily object by offering gifts, thereby fuelling transactional sexuality (Petit and Tchetgnia 2009: 205).

The young girls have obtained a little more independence than the women of their mothers' generation. Longer education and the capacity to earn wages through work allow them to benefit from a little more independence and consideration in comparison to their mothers. By participating in the expenses of both the nuclear and the larger family, young girls are now in a position to give their opinion, negotiate and even overturn norms[4] that had hitherto predominated in society. The increase in the level of education has also led to greater access to modern contraceptive methods and better control of their fertility.

Understanding the Attitudes and Behaviours of the Young: A Sociological and Anthropological Approach

Research-Action: The Limits of Implementation

From the mid-1990s, quantitative KAP (Knowledge Attitudes Practices), KABP (Knowledge Attitudes Behaviours Practices), BSS (Behavioural Surveillance Survey) and sociodemographic surveys were performed on the population. They produced elements of response and recommendations that could have been organised as operational actions within the prevention programmes set up. The solutions

[4] Increasing numbers of young girls succeed in opposing polygamy and the imposed choice of their partner, essential questions for which they had hitherto not been consulted.

proposed by the funding bodies and partner institutions took little account of the sociocultural realities identified in these research projects for several reasons. The fact that these solutions were not taken into account reflected the fear of confronting certain realities including the extent of impoverishment in the population exacerbated by the drastic measures of the structural adjustments introduced by the IMF and the World Bank, the involvement of the elites in transactional sexuality and their incapacity to guarantee minimum well-being for the population. Taking account of realities in the field would have implied radical rethinking of the policies dictated from outside.

Awareness stigmatises cultural universes and places to the fore messages on the harm done by practices such as polygamy, multiple sexual partners, and levirate and sororate marriage, as if evoking them would mask socioeconomic factors and waive away the responsibilities of the funding bodies and elites in combating HIV/AIDS. Most of the research performed on HIV/AIDS, especially at the beginning of the epidemic, consisted of quantitative surveys[5] with standardised questionnaires being distributed to a large sample of the population. They provided valuable information on sexual behaviour, levels of knowledge, and attitudes and practices of the population regarding HIV/AIDS, but they did not lead to understanding the significations embodied in these practices, since such data could not be obtained through a qualitative survey. Our research sought to make up for this shortcoming, though the objective was also to target the effective reasons for the non-utilisation of protection by the young in order to solve this problem.

In a domain such as public health, or more specifically HIV/AIDS, proceeding via an approach based only on cultural responses (levirate marriage, polyginy, early sexuality, etc.), as was the case in the awareness campaigns, prevents the identification of all the factors liable to explain individual behaviours and choices (to protect themselves or not), including contextual structural factors such as relations of power and domination. Culture is important insofar as has an impact on perceptions of disease, sexuality and means of protection. Thus it has a considerable impact on the decision taken to use protection against HIV/AIDS or not. It is fundamental to take into account factors of the cultural universe in which the population lives to understand the stakes linked to protection/non protection and hence formulate efficient policies to combat the disease.

An Urban Terrain

Our survey was performed between 2004 and 2006 in Douala, the economic capital of Cameroon. A port and university city, Douala acts as a magnet for the young people of Cameroon's ten regions due to its economic dynamism and infrastructures. The young leave the villages and urban outskirts to seek a better life and

[5] Mention can be made of the research performed by Rafalimana Hanta (1991); Bah Mamadou Dian (1995); Myriam de Loenzien (1995), and IRESCO (2001, 2002).

become integrated in the urban fabric, the symbol of modernity and opportunities, where they can continue their studies and find jobs. Some show resourcefulness in finding petty jobs and they have a hard time in finding the money to make ends meet as the cost of living is high. It is in urban areas that the inequalities between the different populations are the most pronounced. The growing insecurity of young graduates discourages them from undertaking long studies and demands that they be extremely circumspect when opting for a specialisation at school.

Contrary to rural areas where there are few or no expenses relating to rent, running water, food and transport, the urban population is faced with the high cost of daily life. This situation drives the most disadvantaged groups to settle in shantytowns with lamentable hygiene conditions. It also drives certain young girls to resort to transactional sex to afford all kinds of expenses that their families are unable to cater for. Some parents readily put pressure on their children so that they participate significantly in paying family's expenses. They do not hesitate to show the example of young girls who have succeeded in helping their families by way of transactional sex, encouraging their own daughters to do likewise. Urban areas are propitious for presenting a multitude of situations as social control is looser, western culture has greater influence and social diversity is richer. Young members of the urban population adopt deviant behaviour when they move out of their original place of residence, as they are less known. They can then "let themselves go", and follow the conduct imposed by the modern culture shared with their peers. Young girls are subjected to the pressure of fashion and conformism through the images diffused by the media and communicated by their elders. To avoid any feeling of shame and social downgrading, they aspire to don external signs of modernity and ostentatious consumer brands (cell phones, jewellery, handbags and shoes). Without the income required to satisfy their needs, some of them take to practicing transactional sex, forming relations with much older partners. Placed in a situation of economic need and social domination, they are unable to protect themselves and, in particular, negotiate the use of condoms.

According to two previous Cameroonian Household Surveys (ECAM) performed in 2001 and 2007, two out of five people (40%) lived below the poverty level. (ECAM I 2001; ECAM II 2007). In sexual interaction, poverty is a decisive factor regarding the decision to protect oneself or not. The economic situation prevailing in Cameroon has contributed to scarcity on several levels. Regarding employment, this is reflected by the lack of jobs, leading to idleness, boredom and insecurity. On the economic level, money is scarce and populations find it very difficult to satisfy their most elemental needs such as feeding, clothing and caring for themselves. Faced with poverty and its dramatic effects on life, the risk of HIV can appear to be secondary risk when compared with that of dying of hunger, of being unable to pay for healthcare, losing face or the shame of falling into a spiral of debt. Indigence produces effects in a society in which the majority of the population is fighting for survival: a context in which obtaining access to medical care for even the most ordinary illnesses is a real challenge.

The combination of occupational and economic factors analysed above has contributed in part to the fragmentation of norms in Cameroonian society, resulting

concretely in the emergence of practices that remain marginal. Increasingly, young girls who have financial resources cater for the materials needs of their partners, showering them with gifts whereas the norm prescribes the contrary. Within families, some parents have no hesitation in demanding their children to care for them financially despite their children being jobless. This runs counter to the old order according to which parents provide for their children's needs until they reach adulthood and find work, allowing them to then guarantee the old age pensions of their parents.

One of the implications is the emergence of simultaneous multiple partners and the monetisation of sexual relations. In an urban context of poverty, disease, and uncertainty, in which access to care for the commonest pathologies remains problematic, young people are hit harder by unemployment in a country in which the elders of the male sex hold all the levers of power. On the economic level, although women are very active in producing wealth they have no power of decision. They invest more in the informal sector and in insecure jobs. Not only are they absent in the management boards of major companies, they hold hardly any post of political responsibility. No woman governs any of the country's ten regions, there are no women prefects although the country has 58, and only 20 out of the 180 members of parliament were women in the parliament of 2002–2007.

Survey Methodology

The survey was aimed at understanding how young people build the idea of protection and risk faced with HIV, and identifying their practices and their relations with protective practices. This was done to deepen the analysis of elements liable to intervene in this dynamic and interactional process: the emergence of sexuality, amorous feelings, the level of involvement in the relation with a current partner, the construction or not of a life project, the relation with the disease, the relation between faithfulness and unfaithfulness and the practice of HIV screening tests.

A total of 56 individual interviews and 31 focus groups were organised with young people to identify the complex mechanisms that structure and organise their relation with protection. The people questioned during the individual interviews were recruited from the participants of the focus groups. The sample was composed of 58% girls and 42% boys. Regarding education, the levels were distributed as follows: primary (16%), secondary (77%), higher (7%). As for professions, the participants were pupils or students (54%), unemployed (13.9%), already had jobs (25.5%) or were apprentices (6.6%). They belonged to different socioeconomic sections of the population and were recruited from different districts of Douala. The discussions were held in French, English or in Pidgin by surveyors of both genders. To complete the survey procedure, informal observations were made in preferred places of dialogue such as public transport, the street, the terraces of football stadiums and markets.

It was difficult to get these young people to speak about their sexuality given that for modern African society, the subject is considered taboo and too intimate. Each person has a secret garden that they attempt to protect and refuse to lay bare. The rationale of censure and self-censure pervaded the first contact, confounded with the use by certain young persons of the traditional evasive tactic of "*I haven't got the time"*, "*I don't know how to speak"*, "*I don't know anything"*, "*I haven't got a long pen"*(A person having received higher education), "*I don't know how to speak 'gromologie* (polished French) *I'm very stupid"*, etc. It was necessary to frequent them regularly, try to win their confidence by showing empathy, encourage them to speak about socially shameful and even frowned on practices, using short sentences that proved to be efficient: "*we're alone together*", "*there's nothing shameful about speaking about that*". The combination of all these approaches lessened inhibitions and freed tongues in the informal interviews and discussions.

The Young: Between Refusal and Do-It-Yourself

Perceptions of the West

As in the case of most feared infectious diseases (plague, cholera) HIV/AIDS has led to the construction of strong relation with otherness, especially concerning the source and modes of transmission of the disease. The image of the West as a scapegoat prevails in opinion everywhere in Sub-Saharan Africa (Tchetgnia 2009). Young Cameroonians have a complex relationship with the West as became evident in their perceptions, since their imaginations linked to the West influence their relations with risk and in part motivate their refusal to protect themselves. Relative Westernisation cohabits with a violent and even phantasmagorical perception of the West, mixing fascination, suspicion, adoption and rejection. This ambiguous relation strengthens the feeling that risk belongs to others as if it were remote. The West is associated with a type of sexuality (including deviant and immoral practices), as opposed to a certain Cameroonian perception of sexuality regarded as normal and natural. HIV/AIDS is seen more as a disease associated with people of dubious morality that can be assimilated with that of Westerners and all those whose sexual practices fall outside established norms. Westerners are seen as the promoters of poor sexual morality, and thus the most exposed to the risk of HIV/AIDS.

Cameroonians have often accused the "West" of profiting from the combat against AIDS to promote sexual libertinage and "perverse" sexual practices of which the first is homosexuality. Homosexuals are a group particularly vulnerable to the risk of HIV since the taboo, social rejection and penalisation surrounding sex between two persons of the same gender means that such relations occur clandestinely, without homosexuals being able to obtain information appropriate to their specific needs for prevention and medical care. The lack of information available to them penalises the combat against the disease. The financial assistance provided by

Western organisations aimed at stirring awareness among homosexuals, which is nonetheless important in the combat against HIV/AIDS, is very poorly considered by the population. They antagonise the populations and divide opinions. Almost the entire population is opposed to these funds, and has the feeling that their priorities (the fight against poverty, improving health infrastructures, access to drugs, etc.) are not taken into account. It is not so much homosexuality, as the hegemonic tendencies of the West and its capacity to impose its point of view which is fought. Suspicion of the West is linked to its generosity demonstrated by the almost systematic provision of the condom and its promotion (Njikam Savage 2005; Tchetgnia 2007a), whereas it is insufficiently committed in the combat against several ills that sap Africa and which claim more victims that HIV/AIDS (e.g., famine and malaria). This observation kindles the widespread idea of a Western plot against Africa (Lado 2005).

Dissident voices accuse Western laboratories of formulating HIV to kill Africans. These young people are convinced that "*nothing comes from nothing*", making them believe that something is being hidden from them. They point to the "*unavowable reasons*" behind the promotion of condoms by family planning policies to reduce the birth rate in Africa (introduced there in the 1980s), but which has not succeeded. Although the effects of these pressures from the West are sometimes counterproductive, the local management of the epidemic has also failed to respond to the expectations of populations. The HIV test proposed as a response to the need to reduce the pandemic has not met with any sign of support from the young.

Reluctance to Take the HIV Test

As its name suggests, the HIV screening test is a means of identifying infection by HIV. It is strongly recommended to the population in messages to spread awareness of the need for people to voluntarily submit themselves to screening to protect themselves and their sexual partner(s). The first free screening campaigns date from 2005[6]. They are part of the National Strategic Plan to Combat AIDS 2000–2005. The results of the third DHS performed in 2004 showed that 76% of women and 83% of men had never been tested for HIV. Only 5% of women and 7% of men had taken a test and received results during the last 12 months (Barrere et al. 2005: 272). Of the 274 young people of our survey sample, only 33 had already taken an HIV test in their life. Of these 33 young people screened, only 11 had taken it voluntarily and the 20 others had been obliged to take it for reasons as varied as health problems, pregnancy, circumstances, betrothals, etc. The test is not obligatory but strongly recommended in the case of marriage.

[6] From 1987, screening campaigns were organised in the two large hospitals of Douala and Yaoundé. The cost then was CFAF 3500 (about €5.5) per person, the equivalent of a family's food budget for two days.

Young people practicing "*full contact*" (non-protected sexual relations) are generally reluctant to take voluntary HIV screening tests since they are afraid they might reveal seropositivity (Tchetgnia 2007b). Most of the young people who do not protect themselves during sexual relations prefer to die in ignorance of their serological status rather than know that they are infected by HIV. Although account is being taken of the financial aspect of medical treatment, they consider that the medical screening fails to provide any benefit whatsoever. Thus they prefer to turn a blind eye to knowing whether they are infected or not and receive no medical care. Participation in screening would have been higher if a result showing seropositivity genuinely involved medical, psychological, social care.

Triple therapy was not free at the time of the field survey (2004–2006). The partnership between the Cameroonian government and ESTHER[7] (effective since 2003), which involved strengthening medical care throughout the territory, had only just begun. Actions remained limited in the Centre region with assistance given by medical care units (UPEC). Support from ESTHER began in 2008 and was deployed throughout Cameroon by way of decentralised health care provided by a tutor system. Triple therapy became free on 1 May 2007.

The decision to take the test depends to a large extent on the capacity of the hospital system to ensure that people who take it receive better care afterwards, especially the provision of effective care in case of seropositivity (Tchetgnia 2007b, 2009). Young people are demotivated if they see that the care provided for even the most banal illnesses is ineffective, as it must also be in the case of HIV/AIDS which requires specific medical follow-up. Speaking of factors taken into account in the decision made by an individual to adopt, reject or appropriate innovation, Easterlin (1975) distinguished two types of cost: objective or market costs and psychological costs. What does the test cost them in objective or monetary terms? Free and anonymous screening campaigns are frequently organised in Douala. When the test is not free, the price to be paid is the same as that of a consultation in a public hospital.

The same thing cannot be said of mental costs. Knowing that one is seropositive "*wrecks a life*", "*poisons a life*", stirs anxiety, depression, and leads to a genuine social death that precedes physical death, especially since the persons concerned find themselves in a social environment in which the stigmatisation of people living with HIV exacerbates their marginalisation. Rejection is especially aggravated since contamination by sexual transmission raises the spectre of the guilty patient, a blameworthy patient whose "*disease-punishment*", perceived as a sanction for lack of precaution or negligence, is the price to be paid. This guilt is strengthened by religious discourses underlining "*immorality*", and a "*disorganised sexual lifestyle*" as the cause of HIV infection. "*Unreasonable worry*" leads to fear of being con-

[7]The Public interest group ESTHER whose acronym translates into Together for a Hospital Therapeutic Solidarity Network, was created in 2002 by the French Doctor Bernard Kouchner to promote a quality care for people living with HIV/AIDS and combat inequalities in access to care in developing countries. Esther is present in 17 countries (Benin, Burkina Faso, Burundi, Cambodia, Cameroon, Central African Republic, Ivory Coast, Gabon, Ghana, Laos, Mali, Morocco, Niger, Senegal, Chad, Togo, Vietnam).

taminated by the virus through daily contact with patients[8]. The shame linked to its mode of transmission engenders strong stigmatisation rife throughout society (in the family, hospitals, churches, etc.). In this context a positive result drags the subject concerned down into a labyrinth of despair. Physical costs are inherent to the management of the new situation. The latter is all the more difficult as it is linked to several types of dilemma: the imminence of death, poverty and its effects on access to health care and to being fed, rejection, "the monstrosities of the body"[9] caused by the disease, access to antiretroviral drugs and the constraints linked to their use, and psychological traumatism. Young people who have not used any protection during sexual relations are those most reluctant to volunteer to take the test. Despite being available, condoms are not always used for reasons complicated to explain.

Non-protection

A minority of the young people questioned justified their behaviour relating to non-protection by the fact that they were convinced that AIDS does not exist. A young man of 19 years old asserted that he had never seen a person infected by AIDS. During one of the focus groups, he was contradicted by one of the participants, also one of his friends, who reminded him that a neighbour of theirs had HIV. In response the young man said that their neighbour suffered from typhoid fever and that he was also a victim of witchcraft. He asserted that if AIDS really existed, he would already have been infected because he used condoms only rarely for sexual intercourse.

A larger category of young people do not protect themselves during sexual relations because they want to procure the most pleasure possible from maximum contact. They say they do not want to "*eat the banana with the skin"*, "*suck the sweet in its wrapping*" or "*eat the coconut in its shell*". For this category, the condom "*brakes the movement"*, as this piece of rubber renders contact less fluid; the real pleasure which should be taken without any obstacle, without intermediary, can only be obtained through *full contact*. Eric compared this to "*pleasure such as in the Garden of Eden where there was not even any fig leaf*". This pleasure is more intense than that obtained in protected intercourse. Underlying this was the quest for unmatchable sensation. Gaëtan declared he was "*an adept of strong sensations"*.

– Interviewer: *Aren't you afraid of AIDS?*
– Gaëtan: *No, when I dive I dive, eh! I don't think about it. I tchouk (penetrated) the girl during my last relation without a condom. She was small with a chancy reputation. I was afraid to take the test afterwards.*
– Interviewer: *Yes, but what I don't understand is that when you do that and you're afraid to take the test, you start again.*

[8] Through sharing the same toilets, plates, knives and forks and dwelling.

[9] Erving Goffman (1975) distinguished three types of stigmatism: bodily monstrosities, personality defects and tribal stigmatisms.

– Gaëtan: *For me it's the pleasure that counts. I don't think about this issue of AIDS. It doesn't mean anything to me. It's when they talk about the test that I'm scared. I was shaking in the hospital the last time I took the test. But when I'm in the middle of sex I don't think about it at all. I feel uneasy with a condom, it's an obstacle. It's no lie. When you slip on a condom, sex isn't as intense as when you're rubbing against each other. So when I combo (have sex with a girl) without a condom, I'm very happy. You feel a really exceptional pleasure. I'm experienced. I much prefer maximum contact, especially if I know who I'm going with.*
– Interviewer: *What do you do to know who you're going with?*
– Gaëtan: (laughing), *Lads, it's really your sixth sense that leads you into such situations. You feel it when you have a clean girl in front of you" (24 years old, itinerant hawker of beauty products, without religion, third grade, single, took the test once three years ago).*

Above all, Gaëtan does not want to sacrifice his pleasure on the altar of protection. He knows full well that there is a price to be paid for full contac with the pleasure it gives: probable contamination by HIV, but this risk is far from being dissuasive. The most important moment for him is when he takes his pleasure 100%. In the heat of the moment his mind is not on afterwards. Once the act is over he can look into the rear-view mirror and assess the act accomplished and its implications. Regarding pleasure, although the quest for natural sensation drives him actively towards full contact, things are quite the contrary regarding the ideological aspect.

Some young people simply want to preserve full contact from the diktat of the condom, which the combat against HIV/AIDS requires as a protective measure along with mutual fidelity and abstinence. In reality, the fact that young people seldom practice the latter forms of protection, makes the condom an essential tool in the fight against AIDS. Thus for the proponents of full contact, they are protecting themselves against the "sex exclusively with condoms" exhorted by awareness campaigns, which implicitly proclaim the condom to be the only means of protection. Another category of young people declare that they cannot trust the "*white man's condom*" which they suspect of being pre-infected with HIV in order to kill Africans. Some are convinced that the condom contains tiny holes through which HIV virus can pass. These holes are invisible to the naked eye. The desire to save full-contact in sex, which is gradually becoming the rule, is shared by those who can no longer tolerate the idea of "*slipping on a condom for the rest of their lives*". The DHS data at the time of the survey confirmed this lack of enthusiasm of young people aged 15–24 for the condom. Indeed, 27% of young men and 18% of young women had used the condom for their first sexual relations (Barrere et al. 2005: 288). For other young people, keeping "full contact" also meant remaining free to procreate, which the condom prevents. Thus, if the condom prevents death, it also prevents life. In the interviews and focus groups, the young people often mentioned the effects of using condoms on the Cameroonian birth rate, arguing that the promotion of the condom to protect against HIV masked a Western policy imposed to limit the birth rate in Africa. Young girls were worried about the possibility of having a child if they did not take the decision to do without condoms at a given moment of their lives.

Little Empirical Tricks and Ploys

As seen above, non-protection is justified by reasons as varied as the denial of the disease, the practice of sexual intercourse under improvised conditions (after consuming alcohol, after spending the evening in a night club), the trust placed in the partner of the moment, the quest for more intense pleasure, and the desire to preserve full contact. Faced by the two-fold challenge of sex and death, these young people devise tricks and ploys to protect themselves. These tricks and ploys reduce the risk of sexually transmitted infections. They include systematic condom use, flirting, masturbation, practices without penetration, etc. Many slogans are aimed at young persons wishing to protect themselves: "I don't take useless risks", "full contact means maximum risk". It's the behaviour that makes the "serious boys" stand out. The logics involved range from the selection of partners to delay the risk to anticipating it. Some young people only use condoms in case of having sex with a doubtful partner. The partner is generally selected from a category of the population considered to run less risk of exposure to HIV/AIDS. The body is examined minutely to detect the least tell-tale sign (a spot, strange beauty spots, eczema). As mentioned by Ben: "When I want to go with a girl, I look closely at her body and if I see a single mark, then I'll have nothing to do with her. That's the reason why I always leave the light on, never in the dark, never, never." The absence of such signs provides a little reassurance when practising full contact. Some think they can forestall the risk by washing their genitals directly after intercourse. In this context in which the social norm is that of the virile non monogamous man who always needs more than one sexual partner, certain young people do not follow the beaten path. They stick to being faithful to a single partner. Others see masturbation as a means of avoiding pregnancy and AIDS.

Masturbation as a Practice to Avoid Risk

Although masturbation allows some young people to avoid STDs and AIDS, it calls into question the subjects of normal, abnormal, deviance and pathological behaviour. A magazine of information and education on reproductive health much read by these young people dealt with the question of masturbation in 2004. Although they had read the wealth of quite varied data on the question proposed to the public, many young people who practice masturbation wonder about its psychological and sexual implications. The people who condemn masturbation think that the young people who practice it do so out of shyness, or because they are not up to courting a girl. Regarding adolescent men, very few of them admitted to masturbating. Besides the fact that we recorded an under-declaration of this practice in women and even more so in women that had started their sexual life, the fact that they had been questioned by female interviewers may also have been a contributing factor. In the surveys on the sexual behaviour of the French (Beijin 1993: 1445) noted that women

were more reluctant to declare to other women that they had already masturbated than to men. Other more rational protective practices exist in addition to these minor practices.

Abstainers and "Serious" Persons[10]

By abstainers we mean people who have no sexual relations with any partner. They use arguments like "*true love is waiting"*, "*I abstain"*, "*it will wait for later"*. The category of "serious persons" groups two sub-groups: on the one hand individuals who are faithful to their sexual partner, and on the other persons who, in addition to their faithfulness to their partner, say that they systematically use condoms during sexual intercourse. The serious boy is full of negative epithets due to his fear or reluctance to take risks, epithets that in this context are attributed to women (weak, soft, tender, sensitive, dominated, coward). He is often mocked by his peers to the point of being taken for the "*lame duck*" of the group. Next to the figure of the serious though trembling boy is another figure, that of the serious "emasculated" boy who is derided because he places high esteem on the values of chastity before marriage. They are especially misunderstood as they are males, since a *"guy"*, a *"real lad"* would have genuine biological needs imposed on him by nature.

The "Soldier Always Prepared" or the Tactics of Those Who Know How to Forestall the Risk

Not all the young people met in the framework of this study lived on a day by day basis, improvising and being surprised how things turn out. Some of them had already missed the unique and unexpected opportunity of having sexual relations with a girl, because they did not want to "*run the risk*" without a condom. Some even "missed the boat" on several occasions. On the contrary, others preferred to take the risk of having sex without protection. Both those who abstain and those who take the risk of unprotected sex express regrets: the former regret not having been able to have sexual relations while the latter regret not knowing the serological status of their partner. Driven by surprise and frustration because they were unable to achieve their ends during an evening's encounter, some young people resort to ruses to avoid being left by the wayside. The aim is to profit from such an opportunity without having subsequent regrets. These people are always ready. They are all the more common as they say they are unable to control their "*bodies*" (here, a euphemism for sex). So, in order not to be caught unprepared, some boys always carry their "*arms*" (condoms) with them since "*you never know*". Although this protective tactic more or less conforms to medical recommendations on prevention, one may well ask how often these emergency condoms are used. Their prolonged

[10] Expression used by the young.

storage in a pocket of a shirt or trousers cannot guarantee their solidity or capacity to ensure protection.

Individuals in search of sensation are not short of ideas and artifices. They use their imaginations, especially so as they lack the information capable of fully convincing them. Their trust of the establishment and the world of medical science has frayed; they still feel that something is being hidden from them (conspiracy theory). In order not to feel trapped, or foresee risks and avoid them, they implement practices that can turn out to be counter-productive.

Counter-productive Practices

We observed that some young people sought protection in an exaggerated way. Through attempting to have all the right cards in hand, the final effect is the contrary of that sought. These are ruses whose purpose escapes their initiators' designs, given that the goals expected are very different (Tchetgnia 2007a). This is the case when they decide to "*double*" the condom (fit one over another) because think they will be safer.[11] Others refuse point blank to wear condoms which they say are contaminated with HIV by the West to kill Africans. In their eyes, it is even more dangerous to make love with a condom than without one. However, it is very difficult to clearly discern the line between the discourses that some young people employ to justify their rejection of condoms and the effective reasons that underlie this rejection. What margin of maneuver remains for these young people who no longer trust their leaders and their establishment, in a context of disease, poverty and uncertainty? The answer for some is recourse to God.

Recourse to God

Young people are increasingly being converted to Christianity in the churches run by charismatic creeds arrived from Nigeria and the United States. Their recruits are generally those disappointed by life. For the most part, these recruits have studied but found themselves jobless after several fruitless attempts to find work. They base their hopes on God to find a job. Genuine employment networks are formed in these churches: some of the Church's dignitaries and believers are the heads of companies; others have close relations with certain company bosses or are themselves in a position to recruit personnel. Those close to these converts speak of sects because they have no concrete elements allowing them to explain this change of situation.

[11] The apparent double safety they seek can be explained by the complaints made against cheap condoms. They are effectively considered as being very fragile, liable to be pierced or explode during sexual intercourse and there is widespread rumour of small pores in the condoms that cannot be seen with the naked eye.

The term sect refers to the fact that these young people, previously on the verge of desperation, succeed once inducted into the Church, in finding a decent job and obtain a second chance in life. This mode of co-opting in a religious community network does not exclude the existence of real sects that enrol young people, promising them the earth. In Cameroon, the word sect is often used in the meaning of *"pernicious sects"*. These organisations are deemed "*obscure*", overseen by an all-powerful leader who manipulates the minds of the members with, as consequence, a spectacular improvement in their economic living conditions in exchange for human sacrifice. The person enrolled is said to "*sacrifice*" or kill his family members, through mystical means, in exchange for wealth. The idea of human sacrifice appears to be the most decisive in identifying a sect as such. Practising a religion has frequently been cited as the factor determining sexual abstinence by young people declaring themselves as abstainers. This minority of young adherents (who are very committed and enthusiastic in their relations with religion and God) very often refer to God and tend to quote verses from the Bible to illustrate their beliefs. They have almost all decided to stay virgins until marriage. There is a cumulative effect of age and religion among these young people that preserves them from sexual relations, whereas sexual abstinence is perceived by the sexually active young as impossible. Fabrice, a participant of the focus groups, thought that "*abstinence is for future cardinals"*. Young people who practise abstinence are treated as "*pastors*", "*priests*" and "*impotent*". Different mechanisms of dissuasion are used to change their minds. These range from teasing to the most acerbic sarcasms. The young, both girls and boys, who hope to preserve their virginity, must be driven by strong personal convictions, especially of a religious nature.

Among practicing believers, the hope for a life in the beyond, considered as far richer and more pleasant, prevails over earthly life, which is perceived to be shorter and more limiting. As Weber put it, achieving salvation requires going beyond "the contradiction between daily habitus and religious habitus, itself part of and outside everyday experience". It is the latter which guarantees the certainty of lasting salvation (Weber 2006: 329, 331). It motivates certain believers to adopt earthly behaviour close to the recommendations set out by the precepts of their religion. Young practitioners who declare themselves to be virgins and to stay so until marriage place themselves within this quest for coherence in relation to the strong religious values on which they base their faith and hope. Weber rightly remarked that for the believer, "The certainty of grace … implies the conscious possession of a lasting and unified foundation for leading one's life" (2006: 329). This assumes reducing the importance of earthly pleasures, the foremost of which is sexual pleasure.

Satisfying the Real Needs of the Population

The arrival of HIV/AIDS in Cameroon caused an upheaval in both the way the population perceived sexuality and in behaviours. Politicians and civil society instigated actions in the form of "good practices" to be adopted to prevent the disease.

Despite an evident desire to reduce the incidence of the disease, the public authorities have demonstrated a lack of coordination and resources, and their failure to take into account field data has undermined awareness. Rather than fully embracing the answers given to them, young people have reacted equivocally (acceptance, suspicion, rejection, do-it-yourself). Some of these reactions are their responses to the health policies implemented, but they also reveal the inability of the establishment to implement economic and social policies that respond to the real needs of the population. This failure to mobilise and involve young people more in the combat against HIV/AIDS leads to much wider debate on the necessity of building symbiosis between research, political will and actions to formulate responses adapted to social demands.

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Chapter 13
From Research to Action

Yves Charbit and Véronique Petit

The theory of change and response, associated with the methodology of regional interdisciplinary surveys based on village monographs, does not only provide new paths for facilitating the implementation of development projects, but also from pure academic to applied research and action. The question is certainly not new: the companies of the industrialised countries have always sought to take advantage of their "human resources" and thus increase their competitiveness. Furthermore, how can the operation of public and private services provided to users be improved by using the results obtained from research in disciplines such as the sociology of labour, of organisations, of consumption, and social psychology? However, this is hardly the case of most of the demographers working on the issues of population and development. They refer to the theory of demographic transition and situate themselves, implicitly or not, within the perspective of modernisation to interpret changes in the behaviours of individuals and households, for example, regarding marriage and especially fertility. Women who use contraceptives and delay their marriage have fewer children, at a time when urbanisation is spreading and salaried jobs are more numerous. Needless to say, the identification of such a category of urban, educated and salaried "pioneer" women can efficiently be used for concrete projects. Funding agencies have long known the crucial role played by women as "peer educators" in view to changing behaviours. There is no need to resort to demographic transition.

The previous pages proposed an alternative to this theoretical positioning so widespread among demographers, and set out an agenda for research. We have often alluded to the pertinence of this theory for implementing development projects and

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programmes and for the central issue facing us as scientists: that of collaboration between researchers and decision-makers. The involvement of academics in projects often takes place in the form of "international technical assistance". They must provide expertise which, as far as possible, should not be an activity of substitution but rather one that provides a genuine transfer of knowledge to allow the country concerned to ensure its future development itself. This is why the dimensions of "research" are often indissociable from "training" activities, by which is meant strengthening the country's capacities, rather than education in the academic meaning. Let us briefly recall the characteristics of academic research, whether performed in the human and social sciences, the life sciences or the hard sciences. Research is specialised: it functions through the accumulation of knowledge validated by publications reputed to be scientific, if possible in peer review journals, or at conferences, seminars and symposiums at which researchers present their results. Lastly, academic research has a role in a specific form of training often labelled "training for research through research": Master's and PhD students participate in seminars where they listen to their elders and present their own research which is validated or not by them. Since these major characteristics are to a great extent very far from the reality of applied research on issues of population and development, let us first clarify the complex question of relations between research and action in our field, and the role of the actors involved in programmes and projects (I). We then turn to the contractual academic research, limiting discussion to the two main disciplines that have fuelled the contents of the previous chapters: demography and anthropology (II).

The Actors: Ambivalences and Complex Interactions

Our experience of relations between field research and institutional demands first leads us to emphasise the need to take into account four categories of actors and their interactions, namely researchers, funding agencies, civil societies, governments. They have unequal power when negotiating, play specific roles at particular sociological and political levels, are marked by particular institutional rationales governing their actions, and, finally, they act within systems of constraints that can either brake or accelerate development. Identifying and understanding the rationales underlying the responses of actors is an essential point in our perspective.

The Researcher: Tension Between Scientific Research and Expertise

Obviously, the first actor is the researcher, an individual consultant or member of a research laboratory. For researchers engaged in a scientific career, their promotion within their institution, notably Universities, greatly depends on their scientific productions (articles in peer reviewed journals, books, participation in symposiums, etc.) rather than their capacities to transform the results of their research into

concrete actions which for decades have been are largely situated outside the scope of the academic world, especially in France.

Nonetheless, the culture of academia is changing since research can be funded by non-governmental organisations (most usually private foundations) whose institutional and financial rationales are more akin to those of companies belonging to the private sector in which a premium is placed on profit. Even in government funded projects (for example, those of the French National Research Agency), researchers are now asked, from the design phase of the project they wish to submit, to set out the actions that will provide the results they plan to exploit, disseminate and vulgarise. In brief, researchers must henceforth prove that their research has a very concrete social utility or else be deprived of funds. Research can no longer be performed for the sake of research on issues whose interest appears unquestionable only in the eyes of the researcher. This direction in which research is performed in view to obtaining profit raises a number of questions. Firstly, what is the place of fundamental research? Can applied research be uncoupled from the fundamental research that provides the knowledge on which it relies? What are the principles that should balance these two forms of research, particularly when taking the long and short terms into account? Who are the actors that decide the usefulness or urgency for funding such and such research or orienting it to focus on such and such a problem? What are the principles that found their justifications (democratic representation, scientific competences, self-appointment according to criteria of socio-political or community membership)? How are the criteria chosen to evaluate the research projects proposed by researchers formulated?

Lastly, there is the question of the researchers' commitment. Faced with situations of social violence, conflicts, economic inequality, disease, etc., can they preserve their axiologic neutrality and objectivity? Do they wish to be no more than an observer or, on the contrary, do they prefer to serve a cause or a societal project? To all intents and purposes these choices are strictly individual. This category therefore covers extremely variable and sometimes violently contradictory positions, as has been seen in the debates within the social sciences between the protagonists of "pure", "involved" and "committed" anthropology and sociology, a terminology that covers different possible levels of conflict between commitment and distancing (Copans 1975; Castel 2002; Albert 1995). How is it possible for researchers to reconcile the requirement for scientific rigour linked to their professional ethos and the need to produce analyses whose standards are not fully defined according to a scientific procedure? Increasingly driven to leaving their academic or institutional ivory towers, researchers are called on to take positions vis-à-vis the challenges of the society with which they are confronted and which they must analyse. They also come up against contemporary contexts of research that are increasingly complex (Ghasarian 2002) and sensitive (Bouillon et al. 2005). The challenge for them is to find the right distance between their practices and the expectations placed in them (Agier 1999; Desrosières 2014) and build an ethical framework (Sheperd-Hughes 1995), hence the burning question of the social science researcher's reflexivity. This question sometimes appears to be anecdotal or secondary in the eyes of their institutional partners and funding organisations which do not share their anxieties.

Bi- and Multilateral Cooperations

The second type of actor is embodied by bilateral collaborations (French, American, Canadian, Japanese, etc.) and multilateral institutions such as the United Nations Fund for Population Activities (UNFPA), the United Nations Development Program (UNDP), the World Bank and the European Union to which must be added private foundations, of which the largest focusing on population issues are those of Bill and Melinda Gates, Hewlett, Rockefeller and The Welcome Trust.

Development agents are increasingly subject to sociological and anthropological analyses. Whereas it is logical that populations have always been placed foremost as a subject of research, nowadays institutions (funders, international agencies), NGOs and governments no longer escape critical analysis. Indeed, the failures and difficulties encountered when implementing research projects have led researchers to widen their scopes of study in order to better deconstruct the mechanisms of deadlock. It has become clear through time that these difficulties are not only imputable to populations reluctant to undergo change, but that it is also necessary to re-examine the design and operational implementation of projects in the light of the ideologies and cultures specific to each institution (Fresia 2009). The interactions between each of the different categories of development agents have become a central issue for whoever questions the efficiency of development projects (Blundo 2003; Olivier de Sardan 1995). Faced with the contemporary requirement for transparency, the demand for critical appraisal sometimes comes from the institutions themselves[1].

It is neither useful nor possible to give a detailed description here of the complex process that results in the concrete implementation of a project. We simply emphasise two main points relating to the interaction between the actors mentioned previously and more particularly between the funding bodies and the countries. As already mentioned, for reasons of efficiency and good management, the demands made by governments must fall within the mandates of the funding agencies. For example, the United Nations Fund for Population Activities (UNFPA) will examine attentively projects falling within its two strategic domains: health and reproduction on the one hand, and population and development on the other, the latter encompassing almost everything: promotion of women, education, rural development, urbanisation, and so forth. This stems from the very nature of UNFPA, which, contrary to UNICEF, has a more cross-sectional than top-down view of problems. That is why it has promoted setting up national population commissions in several African countries in order to foster at least minimum dialogue in development projects. Another interesting example concerns the World Bank with its so-called Mutisectoral Aids Projects. The very nature of the AIDS epidemic led to a vision that was not confined only to health, but which also embraced sociology and economics.

[1] For example, at a meeting devoted to the issue of culture as an obstacle to development, the anthropologist Jean-Pierre Olivier de Sardan proposed to conclude with a critical analysis of the institutional culture of the AFD, the institution organising the meeting.

The projects must fall within the funding body's cycle of programmes, generally covering four or five years, and the project document must give a highly detailed description of the activities planned, the expected results and the quantitative indicators of success. The project document must also propose a detailed timetable and budget. Funding bodies often prefer not to act alone in a project and they "pick out" the budget lines corresponding to the activities planned. This approach is perfectly legitimate, as it offers guarantees to each funding body, since the project is obligatorily assessed from different angles and expertise. Nonetheless, we have often observed that the price to pay for the beneficiary government and even for the researcher providing technical assistance is administrative overload. For example, two joint funding bodies will require original copies of the same invoice for accounting purposes. Furthermore, they will apply different rates for *per diem* allowances in the field. This inevitably leads to friction within the project if some of the personnel are paid by one funding body at a rate different from those paid by the other funding body.

But beyond these "logistic" conflicts, tension over the very objectives of a project can occur, as we saw in the case of research into female genital mutilations in Djibouti. As explained in chapter 10, due to the differences in position specific to UNFPA and UNICEF on this serious problem of public health, a matter which should arouse unanimous support, it was necessary to hold meetings gathering all the partners in order to formulate definitions and a common approach acceptable to all. In this type of situation, it is obvious that the influence of the most generous and involved funding body is central. Nonetheless, strategic considerations (for example, partnerships between UN agencies in other projects) and policies also intervene in this type of negotiation. The terms of the debate are never purely scientific.

Governments: The Lack of Resources and the Temptation for Double-Speak

The third category of actors is formed by the governments of developing countries. The rule for development programmes is that the demand must come from the governments and that the projects and programmes must respond to the development needs defined by them. Concretely, in the 1980s, activities in the demographic and social fields were included in Poverty Reduction Strategic Papers (PRSP). However, reality proved to be totally different. The central issue that we have observed in all our projects is that ministries are often in a situation of chronic decay linked to meagre operating budgets, corruption in certain contexts, and the shortage of human resources, especially in countries without income from oil or mining activities. Even in the case of potentially wealthy countries, this by no means guarantees that sectorial ministries are functional; rivalry is intense, with different interests vying to tap into such and such a project to benefit from the resulting jobs, cars, computer equipment and training. In almost all the so-called "sectorial" ministries (health,

education, social affairs, promotion of women and children, etc.) governments, despite their efforts, remain heavily dependent on international aid. This inevitably results in acute dependence on international funding bodies, and thus the demands for aid formulated by them to such and such a funding body must fall within the strategies of the latter and conform to the operational rules of their projects, especially to their administrative and budgetary procedures, despite the fact that, as already mentioned, these can sometimes be contradictory.

Double-speak is sometimes observed leading to doubts as to the sincerity or concrete involvement of this eminently political actor: on the one hand the discourse of the government conforms to the expectations of the funding bodies –and is thus politically correct- in order to obtain funds, while on the other hand, the same government announces a message with a more ambiguous content to its population. One may wonder whether the undoubtedly legitimate political conditionalities (transparency, democratisation, upholding human rights) do not to a certain extent drive governments to practice this double-speak. We do not intend to free governments of their responsibilities, but rather to raise the question of the place taken by the State and the democratisation process in certain contexts, as demonstrated by the crises that are currently shaking Africa and the Middle East. The reality of the State does not have the same consistency in all developing countries.

Civil Society and Social Demand

Projects often refer to the "final beneficiary", that is to say the population as a whole. But in practice, sub-groups of the national population are also targeted in projects. In the case of HIV/AIDS, the target populations are both the general population and the populations deemed at risk: prostitutes, soldiers, truck drivers and other categories at risk, for example, mine workers, since they receive a weekly wage that they tend to spend on occasional sexual relations as we observed in the gold-mining area of Guinea-Conakry. Community associations such as production or vending cooperatives particularly in rural areas can be identified in certain development programmes and projects as direct beneficiaries.

Since the 1994 International Conference of Cairo, and under the influence of the United States, international aid has given a large place to civil society. By civil society, we refer to the involvement of specific sub-populations acting according to agendas for social change distinct from those traditionally defined by governments. In its *White Paper on Governance*, the European Union defined it as follows: "Civil society groups union and employers' organisations (i.e. the social partners), non-governmental organisations (NGOs), professional associations, charities, grassroots organisations, organisations involving citizens in local and municipal life, along with the specific contribution of the Churches and religious communities". Thus it entails recognising and promoting forms of self-organisation in society driven by certain of its citizens active in defending a marginalised or stigmatised group (undocumented migrants, the sick, homosexuals, etc.) or

promoting a principle (equal rights, recognition of reproductive rights, etc.). Although the role played by NGOs now appears obvious and unquestionable, especially to their members, it should still be borne in mind that their legitimacy is more self-proclaimed than real. Indeed, they express either a specific standpoint or a conception of society, and even if their internal functioning abides by democratic principles, they are not, strictly speaking, statistically representative of society, but only a particular emanation of it. In certain cases NGOs benefit from recognition (accreditation) by United Nations agencies, symbolising acknowledgement of the quality of their actions and commitment in favour of such and such group of the population as seen by international institutions. Governments also provide financial support to NGOs if the objectives of the latter match their policies. Olivier de Sardan also proposed the category of "development broker" to better understand local stakes and rationales. Individual actors can profit from their membership of an NGO to pursue a career, hope for the social mobility that they would otherwise forego due to their social background, or try for a political career.

NGOs also benefit increasingly from a form of scientific endorsement as they are involved in research projects at the stage of fieldwork and sometimes even upstream, during visits to fine tune the objectives of the survey. They serve more and more as interfaces between researchers and the target populations of their surveys[2], by relaying the objectives of the research through delivering the researchers' messages and by serving as a form of local social endorsement. Thus NGOs and researchers are involved in a win-win strategy where each of the partners draws an advantage, one in terms of methodological efficiency, the other in terms of national and international recognition. Nevertheless, although NGOs facilitate access to the persons surveyed, their involvement in certain cases can lead to a selection bias or a confused discourse (the cause served by the NGO is identified as the objective of the survey, etc.). It is up to the researchers to calculate the risk they wish to take. This proximity raises the question of the increasingly blurred frontier between research and politics, since NGOs need this two-fold scientific and political endorsement to exist. The claims they channel transform civil society into a new, legitimate source of interrogation ("social demand") to which the government is supposed to respond by offering new surveys, new indicators and new statistical categories. It is obvious that building social demand is less mechanical than our analysis would lead one to think, but social demand is indubitably subject to manipulation by all the actors contributing to its construction. It is neither spontaneous nor natural; it has a history.

[2] Due to its importance and engagement in many sectors of social life (health, education, training, environment, etc.) in Senegal, the NGO ENDA (environment and development) Tiers Monde founded in 1972, is a privileged partner in a large number of research projects involving partnerships and requiring access to certain groups of the population.

Research on the Issues of Population and Development

Funded Research

At present most research on the issues of population and development is financed by way of contracts, which raises specific problems unknown to classical academic research. By definition, applied research obeys the rationale of development. That is to say that it must, in one way or another, focus on a *process* of change, much more than simply observe reality, such as in epidemiological research on the prevalence of a given disease.

The first problem is that of the evaluation of results in a project to strengthen capacities. By way of example, the indicator chosen by a training workshop is generally the attendance sheet signed by the participants at each of the training sessions. This attendance sheet, attached to the consultants' mission report, is therefore considered as an indicator of success. However, a serious academic cannot accept the idea that mere participation in his course is equivalent to learning. Whatever the case, when working as consultants in training projects, we have never observed the existence of credible learning and knowledge transfer verification procedures in line with what academic rigour would demand. Admittedly, more exacting procedures exist in projects aimed at concretely changing behaviour, such as the collection of samples and control areas, or the organisation of a second survey to evaluate the efficiency of what was done.

The second problem concerns the nature of the actors. As was seen, UNICEF is essentially concerned with children and will justifiably emphasise the importance of the universal vaccination of infants, but what of measures relating to pre- and postnatal follow-up? Certainly, in terms of public health, it is important to know the proportion of births assisted by medical personnel, or the frequency of pre- and postnatal follow-up of pregnant mothers. But from the viewpoint of children's health, which is the objective of UNICEF, what should be the target population, the mother or the child? In the case of problems of malnutrition and violence, notably sexual, it is clear that preventive and corrective measures focused on mothers and families are crucial. For example, in 1979, UNICEF hired one of the two authors of this chapter for a six-month assignment to evaluate no less than the world wide situation of the children of migrants. The ambitions of this project were clearly excessive and, at the consultant's request, were reduced to the analysis of the situation in both the countries of immigration and emigration around the Mediterranean basin. The analysis of issues relating to physical health, education, legal protection, mental health, and identity inevitably led to revealing the complexity of the interactions existing between children, their parents and the two societies, those from which they came and those to which they emigrated. Regarding a question such as education, in which indicators of dropout, repeating years, and school failure in general are unquestionably specific to the child him/herself, the analysis of factors underlying the problems encountered in education immediately raises the question of the family and social contexts in which the child evolves (Charbit and Bertrand 1985).

How do these complex interactions between the four categories of actor influence demographic and anthropological research?

Demographic and Anthropological Researchers, Civil Society, Development Agencies

Three questions deserve investigation. What priorities do these different actors have? What types of result do the researchers expect to obtain? What are the concrete problems faced by implementation? To start with, it should be noted that research on demography raises far fewer problems than anthropology, since the origins of demography have always been strongly linked to government institutions, particularly through national statistical institutes (Desrosières 1993). This is not because individual researchers or small independent consulting firms are incapable of conducting censuses and major surveys, but above all because governments have made such tasks one of their prerogatives and thus control their conduct closely. Taking things even further, in most countries, any operation to collect data must receive government approval. Globalisation finds itself confronted with national sovereignty, because data are a powerful resource badly needed by governments. One should not be fooled as to what interests a government when it carries out a census. It is not the remarkable opportunity it provides to optimise development planning (or "governance" to use modern jargon): where is the most rational place to install medical posts and *a fortiori* to build a hospital? The census will above all allow it to carve electoral constituencies to the advantage of the party in power, diminish the numerical importance of a particular ethnic group, etc. Evoking demographic sources inevitably leads to the political dimension underlying this discipline.

There are many reasons why this is not the case for anthropology. The first is that the timeframe for producing knowledge through anthropological research is much longer than the time span of funded projects. Donors cannot wait for researchers who spend so much time providing solutions for their problems, especially in the case of an emergency (say an epidemic). Hiring as consultants researchers who demand to work in-depth and refuse to do what they consider as "quick and dirty" is viewed by donors as a luxury incompatible with the need to obtain results that can be used for urgent decision-making.

However, the divide between classical "in-depth" anthropology and development anthropology is quite deep. In our opinion, the latter allows analysing the concrete conditions under which operations function. This is the case with the clarification of the role of development broker (Oliver de Sardan 1995). Development anthropology also permits taking into account the local and regional dimensions of health and migration issues. Thus it contributes significantly to the analysis of development, whereas action programmes (particular regarding health) are often conducted top-down, formulated moreover by central ministries invariably located in capital cities,

and neglect the realities and regional differences in the rest of the country. This was the remark we made after having presented the theory of change and response at an internal seminar of the French Development Agency. The theory of change and response associated with the village monograph methodology effectively permits avoiding an exclusively top-down decision-making process. In the framework of implementing a project, analysing the factors at the level of the beneficiary stakeholders, i.e. the villagers, allows counterbalancing this top-down decision making process by taking into account the stakeholders' real needs (bottom up). It seems appropriate here to cite an anecdote regarding a period when the disastrous effects of the structural adjustment programmes incited the World Bank and the IMF to introduce compensatory health and education projects. In Guinea, in 2003, it was held and accepted that the priority needs of the peasants were health and education. The survey performed with the villagers revealed *their* priorities of which the first was to have a rural credit facility; the second was to improve the roads that would allow them to sell their harvests. We were thus presented with the formal proof of the ideological nature of this doctrine. Underlying this laudable attention given to these two sectors can be seen the means of continuing a relation of domination: we improve the social but don't touch the economic. It could be objected that many projects to improve road and port infrastructures or banking systems undoubtedly help the economies of beneficiary countries to take off. But this is not our objection: if one admits that central governments serve themselves first, it is in their interest to accept that these few crumbs of international aid go to rural areas. Even worse, they tend to target areas in which they are politically strong.

The whole problem is to know if the anthropologist can convince the stakeholders in civil society or the funding bodies that the concepts they use to analyse reality are heuristic. This was well demonstrated by the HIV/AIDS epidemic. We mentioned the expectations of the funding agencies. But even if there is no emergency, they reproach researchers for failing to at least clarifying the "useful" programmatic implications of their research. Unfortunately, through intellectual honesty, an anthropologist asked to answer a question will most often tone their diagnostic, whereas the funding agent expects a matrix or table in which certain boxes will be ticked and not others. Nonetheless, the positive effect of the role played by funding agencies and civil society is not inconsiderable, as they stimulate anthropologists and demographers by getting them to leave their traditional areas of research to broach new themes. This was the case of female genital mutilations, which had become a public health challenge, instead of remaining an exotic subject confined to cultural anthropology. In brief, anthropologists must know how to transform institutional demands into research works that cannot be attacked in the eyes of their own discipline. Their demands must bear on methodological rigour, the quality of the field work and the relations kindled with the populations.

The debate is becoming more complex with the current evolution of research: it is increasingly difficult for academics to work alone with limited resources and research is becoming more and more institutionalised, in that it is based on contracts. The researcher is therefore contractually responsible for providing results to the funding agency. This does not of course entail supplying the results *expected* by

the funding agency, but of reconciling a genuinely authentic scientific production and the supply of several programmatic results consistent with the research performed but which are "legible" and useful to the funding agency. Whereas funding agencies expect only the data vital to them for their programmes, the researchers who possess in-depth knowledge of the field can justifiably defend another position: from the standpoint of the society with which he has familiarised himself, many other questions of development take priority but for which the data required are unavailable.

Thus for decades in sub-Saharan Africa the priority of funding agencies was to control fertility, whence the utilisation of considerable funds to the detriment of other development problems, notably migrations. It was necessary to await the creation of the Schengen Area and the emergence of security concerns so that research on migrations finally benefited from the European Union's resources. Likewise, considerable funds were made available when the HIV epidemic broke out in the mid-1980s. However, it should be recalled that the objective then was to combat the HIV1 virus hitting groups of homosexuals and drug addicts in the countries of the north. Only later were efforts focused on Africa and Asia, when the devastating effect of heterosexual and mother-child transmission was observed. Still worse, this mobilisation against HIV made two collateral victims: the resources allocated to other components of reproductive health, especially contraception, stagnated in volume over several years; also, despite the seriousness of malaria in terms of mortality during this period, it stirred neither the interest of the international community, nor did it benefit from comparable resources dedicated to searching for a vaccine.

Finally, the problem is that of defining the priorities of development. What data are necessary? Which populations have priority? What body should rank the efforts made in time and space and in terms of resources: civil society, governments, supranational agencies? And what role should the researcher play as consultant in defining these priorities, notwithstanding the fact that his work depends on the funds allocated by the funding agencies? What are the challenges now facing the "research management"? Fortunately, we can testify that a real margin of manoeuvre exists for researchers in concrete programmes. It is incumbent on them to present the reasoning of their research project well when responding to a call for offers, as although the funding agencies define the orientations of programmes, they are perfectly aware that they lack the competence to influence the technical content of research protocols.

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