

Leviers d'une politique de développement durable

**Demography, Town and Countryside Management and
Sustainable Development**

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Demography, Town and Countryside Management and Sustainable Development

1. Summary

This project is carried out by two coherent university teams which work in close co-operation - the Laboratoire de Démographie de l'Université de Liège and the GéDAP (Centre d'Etude de Gestion démographique pour les Administrations publiques – Université catholique de Louvain) -.

The main characteristic of our project is to turn demography into a tool to help decision-making in development policies and regional planning. In other words, to propose a demographic logic which allows to follow the sustainable development of a society at the regional, communal and infra-communal level. Our activities show that local demography is indispensable to identify situations of non-sustainability and put an end to them.

The greatest challenge in this sense, the invasion that has changed space in developed countries during the last forty years: peri-urbanisation. That is to say, the invasion of the countryside by wealthy urban populations which leave cities empty and impoverished. Urban population skaters through the surrounding countryside maintaining their attachment to the city by their jobs. Therefore, frontiers between the urban and the rural, between urban and rural citizenship are becoming increasingly blur. We can identify diverse factors causing peri-urbanisation; urban deterioration, an increase in living conditions, individualism, pro-ecological movements which promote the return to nature and a better quality of life, but above all, the increase in the amount of cars and motorway infrastructures. Cars have swept away the obstacle of distance and have greatly contributed in bringing cities and rural areas nearer. Cars can be considered as one of the main factors leading to the city bursting.

The process of peri-urbanisation has important economic and ecological implications but also generates a social selectivity which accentuates differences between cities and rural areas. Even if the peri-urban choice can be positive at the individual level, it is not so when approached from a collective perspective. It is undoubtedly opposed to sustainable development. A matter of juggling individual and collective interests.

Other works at the infra-communal level have underlined the extreme diversity and the deep social and demographic inequalities that exist inside the big urban agglomerations and within the neighbourhoods.

Many inquiries have also confirmed that at different life stages of a person's life or at those of a household correspond different specific migration projects to which different habitats are associated to. However, the privilege of being able to choose the area of residence is only of the wealthy. It is also clear from the same point of view that inequalities grow. Young generations have less options than those which have reached adulthood in the sixties and seventies. Intergeneration equality is menaced by peri-urbanisation and ageing.

2. Aims

In the most classic and wide definition of sustainable development it is considered to be type of growth that responds to present needs without compromising those of the following

generations. The idea of sustainable development was born when it was realised that non-renewable natural resources were being exhausted and that our society was becoming economically and socially stagnated. In other words, which is the way in which growth can be reintroduced allowing to reduce inequalities and poverty at the same time, without deteriorating the environment that is being left to future generations? The ecological motivation is accompanied of important economic and social stakes. However, the social dimension of this problem is often forgotten by scientific work, by the preoccupations expressed by politicians or by society in general.

Without neglecting the interactions between the three spheres– economic, social and ecological – that cannot be separated from sustainable development, our work concentrates on the social dimension of the problem. We are convinced to contribute to sustainable development of society means, in the present context, to fight against social disintegration and therefore favour a growth which carries solidarity, which tries to reduce inequalities, exclusion and the social fractures of society.

Knowledge of past and present demographic facts within their spatial dimension should contribute to develop an indispensable analytical tool to help decision-making and facilitate the elaboration of sustainable development policies for our society. We conceive the latter as a group of measures designed to ensure a harmonious equilibrium between, on the one hand, the needs and aspirations of the population and on the other, its environment, being defined as the daily space in which each individual lives, where both the strictly natural element (landscape, pollution, noise...) and the social, economic and cultural factors interfere (employment, habitat, conviviality, feeling of insecurity...). The integration of these two notions –the population and its environment- should attempt to develop sustainable regional planning. The latter will not be viable and efficient unless these two “spheres “ are developed in perfect harmony.

In our objective, the variable population is essential as an agent and denominator. From a more pragmatic position, it is necessary to integrate demography in the group of tools aiming to help decision-making at the national, regional and the commune levels. It should guide political choices searching to develop or create, in the widest sense of the term, an environment which helps our society. But our role would be incomplete and insufficient if we limited our contribution to the “practice” of demography in the strict sense of the term. The demographic characteristics and components are not isolated from the rest of factors. Their evolutions, their diversity can only be explained in interaction with other social, economic and cultural variables.

Further ahead, our approach becomes specifically local. Sustainable development embraces all levels from that of the planet to the local one but the priorities and stakes for each of them are different. From our point of view, the local level – communes and neighbourhoods– is the correct level of analysis. Moreover, despite globalisation our planet is still that of cities, villages and neighbourhoods, that of the immediate environment of individuals. From a general perspective, the behaviour of individuals is inscribed in a context where he interacts with the people he has near, that is to say, those with whom he has established relationships as well as those which he is spatially near to. The space where he lives, all the places and persons with whom he has relationships with involve an element of distance. The intensity of ties will diminish as the distance grows. In summary, in order to reach a global objective, the local level is the nearest to human, social and economic realities and therefore the best level from which to mobilise all agents involved, whether they are local groups, firms, citizens.

Finally, and this is not the least important argument, the commune and neighbourhood level is the only one that allows to detect “areas at risk” and crisis zones. A sustainable and harmonious development policy can not afford to ignore these differences and inequalities.

In this context, our studies have treated two specific problems

- Migrations, peri-urbanisation and sustainable development

In Belgium, mobility is at the centre of most debates on sustainable development. However, in the political discourse and that of the media, mobility is essentially perceived as commuting. Problems such as traffic congestion caused by people trying to get in and out of big agglomerations, the increase of the energy bill and the environmental problems that are caused by them (pollution, noise...) are underlined. They forget that above this daily mobility there are residential choices that have been anchored in the mentality of people, in some cases for a century, in others for over 40 years.

These residential choices are integrated within the process of peri-urbanisation. This type of movement consists of the depopulation or a diminution of demographic congestion of urban agglomerations while their green periphery wins population. In other words, urbanites spread among the surrounding countryside while keeping attached to cities through their work. The limits between urban and rural, between urbanites and people living in the countryside are becoming progressively blur. This disperse city with its malls, its housing states, its highways invading villages situated at the periphery of urban centres, corresponds, in some way, to what a part of the population wanted and still wants. Peri-urbanisation is not only a phase of the urbanisation process, it mainly reflects the evolution of the ways of life. This spatial dislocation of the city expresses the desire of a vaster and healthier space in which to live in, and that of having an individual house and to disassociate the work and living spaces. This is in contradiction with the idea, defended nearly everywhere, preached by urban planners and public powers, of the “sustainable city”. That is to say, that of the increased density of central urban tissues. This is because the model of the disperse city, which implies a over-consumption of space, due to the expansion of peri-urban areas and the multiplication and the increased duration of trips, is not really compatible with the set-up of measures that try to reduce the emission of greenhouse effect gases and other type of pollution (garbage, noises...) inherent to the growing urbanization.

The impact of peri-urbanisation is not only ecological, but also economic and social. Spatial redistribution of population caused by mobility is coupled with a residential segregation process, of the impoverishment of urban agglomerations and the enrichment of the peri-urban rings. In Belgium, with the Registre National, we have an optimal data base to study spatial mobility. Our research brings innovative analyses of the social and economic dimensions behind mobility which allows to go beyond it in terms of causes and consequences.

- Multiplication of spaces in crisis (at the communes and neighbourhood levels)

The main idea is that the sustainable development of a society cannot be reached if social and economic inequalities are maintained and increased. Our role is to identify among the situations of marginality, difference and inequality, those that are “unsustainable” or that carry the risk to become so with time. Within this framework, the aim of demographic information should be to contribute to the need to give greater equity to all citizens and to

direct the shape of the future of society in a way that it allows to share the well-being among all the citizens, without making any differences between them.

An optimal, sustainable local development should rest on an up-to-date knowledge of the social and demographic characteristics of a commune, but especially on that of the differences and inequalities that can be found in it. Do we realise that the “sacred” national and regional averages disguise an extreme diversity of structures and social and demographic behaviours that reveal the existing inequalities and tensions? To forget or not take into consideration these differences leads to reductionism and to a deceitful globalisation . For example, in the agglomerations of Charleroi and Namur fertility rates found within a commune can be triple from one neighbourhood to. There are 6 to 7 years of difference in life expectancy between certain communes.

In this sense, we have worked with the concept of **neighbourhood** that is based on the daily space of life of individuals and intends to regroup in the same spatial unit all the people that have a common large life space and are in this way confronted with the same spatial environment, and generally, to the same problems. The use of this level of analysis has not only geographical and statistical aims but is also key for the development of policies at the infra-communal level.

3. Some Results

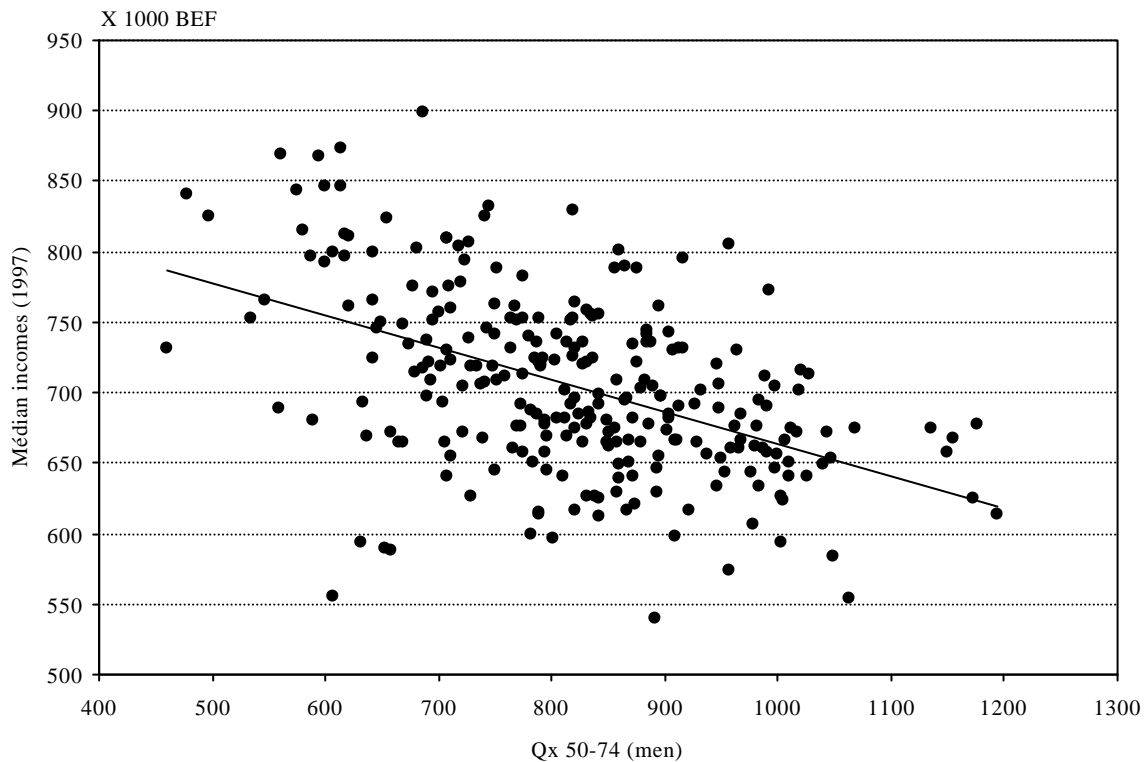
- **Social, economic, demographic and cultural components of the process of peri-urbanisation**

As we have already stated, an important part of this project has been dedicated to peri-urbanisation, and more specifically to the evolution of this process, to its consequences and to its social and demographic components. of this peri-urbanisation movement? Here, we have only introduced some of the main analytical results, i.e. those that show the role of péri-urbanisation within the process of social and demographic radicalisation of differences between cities and rural areas.

The peripheries of agglomerations grow through the immigration of relatively wealthy households, where adults remain linked to the city through work. This is the classic and simplistic image of the social and demographic content of peri-urbanisation. A social choice is done through residential strategies. This choice reinforces social and economic contrasts between privileged peri-urban areas and poor neighbourhoods of big agglomerations where the images of exclusion, poverty, isolation, ageing, family fragility, dwelling degradation and under usage of collective facilities are strengthened. This way, “Registre National” data has allowed us to show that :

- Peri-urban communes can be characterised by an specific fertility model, that is to say, a relative over-fertility at high ages which reflects a higher female instruction level and a higher activity level, characteristics leading women to postpone their fertility projects until late in their fertile life. .
- Peri-urban communes have a much higher life expectancy at birth than that of urban agglomerations. This differences do not only underline boisterous inequalities in relation to death and illness, but also the delay of certain habitats or sub-regions in terms of health resources, of illness prevention, facilities...

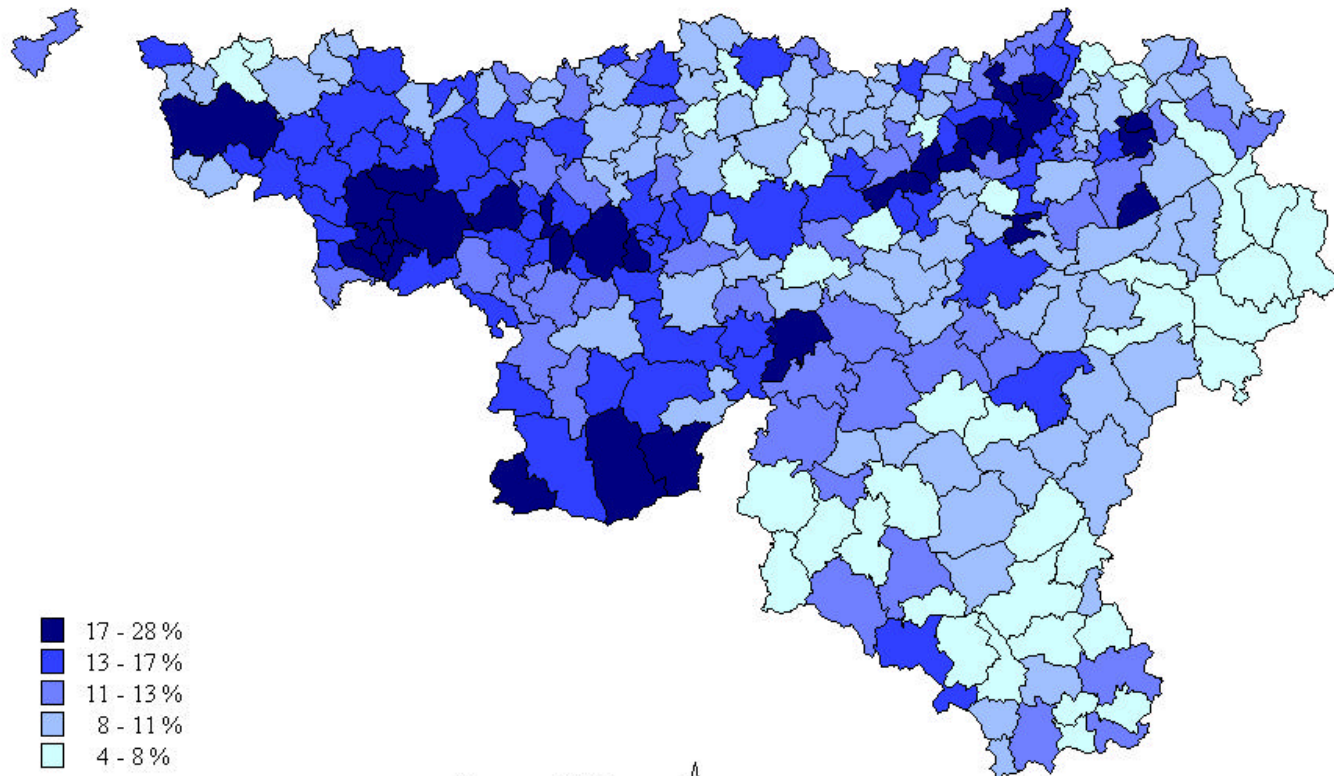
*Relation between the mortality quotient of men between the ages of 50 and 74 (1993-1998)
and the mean annual incomes(1997) : $r = -0.49$*



- Different types of households are not regularly distributed throughout the territory. There is also a very clear segregation of space at this level. In peri-urban communes, households are generally bigger and those that are at risk (one-person, one-parent or recomposed households) are less represented. (51 % one-person households in Liege and 25 % in peri-urban zones). 22 % of the children under 15 living in the urban centres of Wallonia, do so in a one-parent household. However, the proportion is slightly above 10 % in the peri-urban area. In Liege, 44 % of the women aged between 25 à 39 live on their own, whereas they are 21 % in the peri-urban area. Moreover, our original study of household transitions (where households were followed between to dates) has shown that households were much more stable in peri-urban areas. However, the debilitation of the family and the rapid development of new family models- and therefore the multiplication of the number of households- has evident social and economic implications, but also environmental ones that reflect an increase in the demand of dwellings, an increase in mobility and in the consumption of certain goods (car, water, electricity...)

On the other hand, we can observe an opposition, a social selection process in peri-urban habitat caused by the pressure put on housing by the demographic growth, caused by migrants coming to this kind of communes, and by the dominant cultural habitat model –detached house with garden in the countryside-. This is what we have been able to verify in the Walloon Brabant.

Proportion of children less than 15 years old living in a lone parent household (1998)



0 25 km



Source : Registre national - I.N.S. Realization : GèDAP - UCL

In the first place, there are contrasts between the ancient inhabitants and those that have just arrived. The former group's age structure is much older than that of the latter one and this had had repercussions on the composition of households and on the social and professional structure of both groups. Therefore, non-natives largely dominate the so called "active" category and this does clearly not go without consequences on the evolution and transformation of the cultural, social and political life of villages. In other words, this quantitative "domination" is coupled with a "qualitative" differentiation. The latter showing both through the employment structure- there is a high number of workers among the native and a high amount of private sector employees amongst the "neo-rural"- and also through the education level- the non-natives have a much higher level than natives. Finally, this social opposition between the "ancient" and the "new" is also reflected in space through housing in general and more specifically in housing states.

Secondly, we can name the inertia factors which have transformed a de facto situation into a vicious process. As neo-rural settlers flock in, house prices explode and a social selectivity process is started and ancient households emigrate to villages surrounding the Walloon Brabant which are capable of "offering" decent prices. The latter have very similar demographic characteristics to immigrants coming into the Walloon Brabant. The dominant model in both cases is that of a young couple with one or more children. However, couples leaving the Walloon Brabant to settle in its periphery are generally slightly younger and have slightly less children. Differences between these two "sub-populations" are reinforced by their social, professional and education level. There is an over representation of workers and people with low or average education amongst out migrants. On the other hand, private sector employees and people with high education are, in relative terms, better represented among immigrants. The different analyses carried out also show those leaving the Walloon Brabant - for a peripheral commune or one of another part of the country- are not those making part of unemployment list of the province nor belong to the C.P.A.S. In other words, the social choice is made among "middle and working classes" and not among the most socially deprived, reinforcing in this way the duality between the base and the tip of the social pyramid and therefore highlighting the lack of social and rental housing which exists in this province.

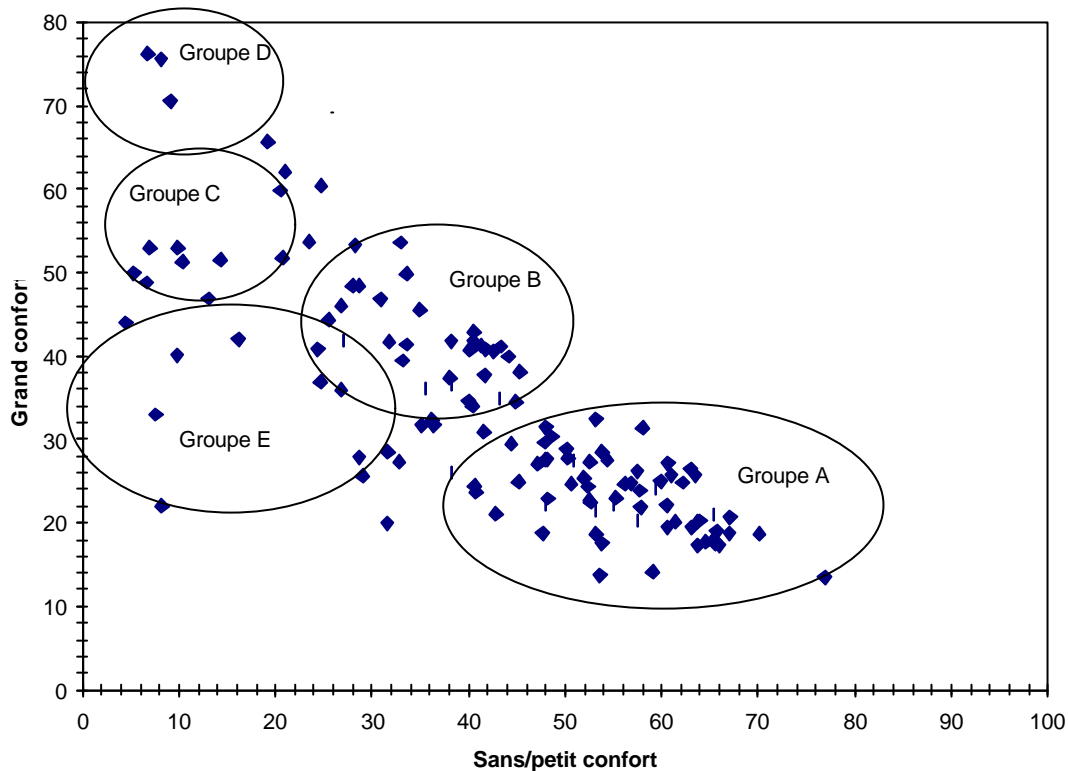
- **The great Walloon agglomerations: heterogeneity of structures and of social and demographic behaviour and precarious spaces**

The social choice performed by peri-urbanisation contributes to strengthen social, economic and demographic contrasts between privileged peri-urban areas and the disadvantaged neighbourhoods of the major agglomerations where the images of exclusion, poverty, isolation, ageing, family fragility, deterioration of dwellings, under-utilisation of collective facilities are strengthened...

Within the framework of our research on impoverishment of urban environments, we analysed in detail the case of Liege. Liege has known an impoverishment process which is closely assimilated with its territory. The wealthiest city residents left the city in mass to establish in the periphery. It is a well-known phenomenon: as a direct consequence the abandonment of the city by the wealthiest population there is an urban crisis. Using neighbourhoods as an analytical grid, we measured inequalities with two simple indicators: income and dwellings. A first analysis took place within the neighbourhoods to measure internal tensions, the second examines the frontiers of neighbourhoods to locate fractures, the

borders of urban space. In other words, the points of contact between poor neighbourhoods and rich ones.

Proportion of those without small nor big confronts in their houses by statistical sectors, Liège, 1991



Group A = « disadvantaged and homogenous». Second reading: profoundly unequal

Group B = Tension zone: big % without small nor big confronts in their houses. Small number of mean houses. No transition

Group C = « wealthy and heterogeneous». Inequalities linked by strong % of mean level houses

Group D = « wealthy and homogenous»

Group E = Zone without friction. Great part reserved to mean confort

Source : I.N.S. (1991), *Recensement de la Population et des logements Commodités combinées à l'intérieur des logements privés occupés par secteurs statistiques* (Population and housing Census. Commodities that can be found in private houses by statistical sectors).

Results reveal:

- A net gentrification process. Neighbourhoods located in high areas of the city are taken by assault by a young aged middle class seeking habitats in relatively pleasant neighbourhoods that are not too expensive, while poorest people do not have another choice than to live in the centre.
- It is moreover in the urban centre where borders between rich and poor neighbourhoods can be observed. But the rich neighbourhoods of the centre are not free from inequalities. The most uneven neighbourhood is that of Mount-Saint-Martin (historical heart of the city) where exceptional buildings as well as a slum compound can be found.

This shows that the city is not only a dual space but one that has “exploded”, which has been de-homogenised. . The study we have made in 55 neighbourhoods of Charleroi confirms it and allows to verify, thanks to use of more demographic data, that:

- Differences are stronger with than between communes. The city is diverse and any policy to be undertaken, should take it into account. These heterogeneity also shows the existence of crying inequalities. We can put male life expectancy at birth as an example. There is 12 years of difference between Charleroi neighbourhoods that are situated at the extremes of the distribution while the separation is only of 8 years between the maximum and minimum value of the 262 Wallon communes for which we have calculated life expectancy. Though maximum values are nearly the same, slightly more than 76 years, the minimum life expectancy is much lower for the Charleroi regions (63,6 years) than for the Wallon communes (68,6 years). The delay cumulated by the former populations cries out the existing inequalities in relation to access to health services, illness prevention, particularly harmful behaviour (tobacco, alcohol, diet...) but probably also those related to a degraded environment (pollutions, unhealthy houseing...)
 - Certain social and demographic categories are more concentrated within urban space than others. The most socially marking categories (benefit receivers, non-EU foreigners, managers, university students...) tend to be located in certain neighbourhoods, while the greater mobility of and, specially, the lower internal cohesion of intermediate categories translate into a higher spatial dilution.
 - By mapping the different indicators we have been able to see that urban space is divided in three parts. Globally, social problems are concentrated in a central area which goes from east to west embracing the more urbanised neighbourhoods bordering the Sambre river which were those in which the 19th century massive industrialisation took place. It is also here that the most unhealthy housing can be found. On the other hand, the unemployed population, that receiving benefits, non-EU foreigners, people with low education are clearly less found in northern or southern neighbourhoods. In addition, it is in the southern part of the city where there is the highest concentration of people above the age of 60, that is to say where non built and green spaces are bigger, and where the peri-urban communes are nearest.
- **Life trajectories in regional and local frames: demographic evidences and components of non-sustainability**

The study of life trajectories at regional and local scales can stress several evidences of non-sustainability. A first observation is that mobility evolves along the life course. Different phases of life correspond to different migratory projects, and different urban as well as regional spaces: they are segregated, often in a variety of spaces, and this variety permits to meet the aspirations which evolve along life course.

Our event-history analyses on the city of Namur, carried out at a local scale, stressed the importance of the psychological and financial costs of mobility. It appears that the rapid impoverishment of the cities is largely due to a dynamic of immobility. Analysing the departure of the children from the parental home in the 1990s, we detected the numerical importance of what we called « downwards migrations ». So, some sons and most of the daughters accept to leave beautiful peri-urban neighbourhoods for having their autonomy ! It contributes to the process of ageing of the rurban areas.

It confirms what we detected at a more regional scale, that the space is largely segregated. People's wishes of mobility are strongly blocked by the process of periurbanization : the high demand in dwellings in the rurban areas brings about an explosion of the prices... Young families have not the financial means to find a place in the local land market, and they are 'rejected' from the peri-urban rings.

In a word, differential access to a variety of spaces according to age poses the question of inter-generational equity that is crucial in the social, economic and political management of the ageing process.

4. Application and use expectancies

Apart from our scientific work, our two teams also aim to make decision makers, at any level, aware of the present demographic realities so that they can introduce them into their actions. It is a process of helping in decision making aimed at those responsible of public management at any level, from the commune to the international one. However, this aid can only be beneficial if it is based on adequate, rich, up to date and reliable data.

One of our main assets is a unique database which has resulted from matching the Belgian “Registre National” with the last population census (1991). The quality of information which can be found in it is extraordinary and allows to put an enormous amount of questions and the carry out relatively new approaches – longitudinal and between generation analyses, household transitions, housing demography...- and relatively sophisticated methodologies-factor analysis, cluster analysis, event history analysis...This individualised but anonymous database can be also supported by a statistical database of the Walloon communes (Bdcom) which has several million datum coming from the 1981 and 1991 censuses, the property register, the unemployment and revenue statistics and those of house sales and of population movement. The work we are carrying out for public administrations allow us to continuously enrich these databases.

Our efforts we made operational and concrete in an interactive computer program CYTISE which includes the “Registre National”-census match. This computer program which has several dozen million datum is specially adapted to the comparison of local populations and their demographic management.. A more complex version of this computer program, which will include Bdcom as well as more “environmental” data and indicators built from original data collected for this project, will soon be developed always with the aim to aid decision-making. This is for example the case in the *living standards barometer* of Wallon communes which we built by crossing demographic, social, economic and environmental (in the “classical” sense of the latter term: green areas, atmospheric pollution, etc.).

- Life trajectories in regional and local frames: demographic evidences and components of non-sustainability

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A final innovation will be introduced by adding to the map an aggregation function which will allow to add up different spatial units (communes, neighbourhoods...) between each other. This function should help decision makers and managers conciliate their decisions, for example in relation to the definition of the extension of urban communities. This tool also has a didactic, amicable intention. It should be flexible enough to take into account both scientific and more pragmatic requirements, in for example, the choice of indicators and that of spatial divisions.

Our data bases and computer tools want to be above all pedagogic and interactive. One of our main roles as scientists in sustainable development is to ring politician's alarms with the help of the most reliable and adequate tools. The latter have to lead to reflection, to reasoned choices which have to juggle scientific advice, public management and citizens constraints and the population's individual aspirations. As we have shown, both measures already taken and those to be taken in the future for our society's sustainable development cannot be forced into it but have to count with the population's co-operation, they have to be part of a collective project. Or isn't that the price of sustainability?