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LATIN AMERICA: NOTES ON POPULATION,
ENVIRONMENT AND DEVELOPMENT

Economic Commission for Latin America
and the Caribbean **


** Economic Commission for Latin America and the Caribbean, Santiago, Chile. The views expressed in the paper are those of the author and do not imply the expression of any opinion on the part of the United Nations Secretariat.
1. **Starting point for envisaging the population\ environment\ sustainable development relationship**

In general, the starting point for envisaging the relationship between population and environment, and also that between population and development, is to attribute a preponderant role in the unleashing of negative processes which affect the world situation to certain poles in the relationship. One position is to consider that population growth is the leading factor in the deterioration of the environment because a larger population exerts greater pressure on ecosystems. Advocates of this position usually argue that a high rate of population growth is closely linked to poverty and that a population made up of poor people looking for ways to survive puts the environment at risk, especially in developing countries. Thus, the literature relating to this problem is full of affirmations that population growth is the factor responsible for poverty and environmental degradation in third world countries.

On the other hand, alternative points of view, while not denying the importance of population growth in the equation made up of all the variables which offer explanations for changes in and prospects for the state of the environment, put emphasis on a number of other factors which have a significant effect on it. It is argued that although population growth (which is in fact declining in Latin America) may aggravate a situation in which deterioration of the natural environment and erosion of resources had already been occurring, it does not seem to be its basic cause. This does not of course mean that the size and growth rate of the population and, above all, its distribution throughout the territory of a country should not be taken into account and that consideration should not be given to the factors underlying those characteristics and to their consequences as important inputs in the formulation of sustainable development policies and programmes.

In particular, it has been observed that the models which have been used in an attempt to promote the economic development of the region and the demands to which the consumption patterns of developed countries and developed sectors of underdeveloped countries are largely responsible for the environmental degradation which has taken place throughout the world. The industrialized world consumes the largest share of the earth's natural resources, with consequences which are sometimes devastating and have made it necessary to express the need to take seriously the conditions which govern sustainable development. For example, although they account for scarcely 25% of the world population, the developed countries consume 75% of all the energy produced, 79% of the fuels which are marketed, 85% of articles made of wood and 72% of the steel produced (UNFPA, 1991).
One of the most important variables in connection with the free market development model, whose use, with a few variants, predominates in the region and affects environmental conditions, is a large concentration of capital and of natural resources, which results in tremendous inequality in their distribution. Another variable is, the availability of technology, technical assistance and credit for large national or international enterprises and their unavailability to small producers. All this is related to the role which the State could play in bringing about the kind of development which would be sustainable and accompanied by social equity.

However, as Repetto and Holmes (1983) point out, although unequal distribution of resources is a crucial issue, it is not the only problem. Environmental degradation is also largely due to the fact that the best land, which is controlled by large landowners—usually international consortia—, is being used primarily to produce for the external market, the export market being the main factor responsible for deforestation and other processes which destroy the environment in underdeveloped countries.

After the population\development\environment relationship has been considered from a global perspective, an appropriate step might be that of identifying concrete environmental problems which affect the population and pinpointing their specific underlying causes.

For this reason it seems tremendously important to identify different groups or social actors within the general population, the power to which they have access and their real impact on the environment, which may make it possible to come to a clear understanding of the role played by the population variable.

There are problems which, in one way or another, affect all countries. These include land degradation, the elimination of tropical forests, the destruction of the ozone layer, the greenhouse effect, the loss of biological diversity, the depletion of water resources, deforestation, air and water pollution, etc. Although the solution to these problems depends basically on the high-level political decisions taken by Governments and international organizations, measures can still be taken at other levels.

As noted by ECLAC (1991), environmental policy covers three broad areas, including i) personal and social conscience-raising and education; ii) sectoral and national investment and iii) technology. While action is taken in these areas, without reducing the importance attached to global decisions and action, it would seem appropriate at the same time to focus attention on a practical approach aimed primarily at the solution of concrete problems which have a direct affect on communities and can be dealt with by taking measures at various levels.
Along these lines and from the point of view of concrete action, it seems important to give priority to problems which are felt at community level and may be resolved within the community. As a population segment smaller than a country, the community is obviously an ideal place for becoming aware of large environmental problems of a general as well as a specific nature, where an attempt can also be made to reverse the processes of degradation mentioned above.

It should be noted that forces of social and economic integration exist within poor communities. These could be enlisted for the accomplishment of important short- and long-term goals. The ability of communities to take action on their own initiative has been developed only to a limited extent, and the immense contribution they can make to progress has yet to be tapped. The use of appropriate technologies is another alternative which must be explored, although not in isolation but with the support of the public and private sectors. It would be worthwhile taking a careful look at studies which show what situations require attention most urgently because of their gravity and the number of people they affect.

Lastly, attention should be drawn to the efforts being made to link population dynamics through the transformation of the age structure with the achievement of sustainable development (World Resources Institute, 1990). According to this approach, the change in the age structure affects the relative composition of the population's social needs and demands (education, health, nutrition, job creation) and the possibilities of satisfying them by influencing the ratio of dependency of the non-active population with respect to the active population and the generation of income.

In national contexts characterized by a severe imbalance between the dependent population and income generation, the objectives of stability and economic growth, environmental sustainability and the eradication of poverty are often difficult to accomplish at the same time. In such situations, which occur frequently in the developing countries, it is sustainability that is generally sacrificed to the achievement of stability and economic growth and a minimum level of well-being.

2. Latin America and its environmental problems

In recent decades the demographic pattern of Latin America has changed radically in that in the majority of the countries the death rate began to decline notably from the time of the Second World War and the rate of fertility has dropped markedly in recent years. These factors explain the behaviour of the population growth rate which has fallen from 2.8% a year in the five year period 1950\1955 to 2.1% a year during the period 1985\1990. The relatively high growth rates still experienced by the region in
spite of the decline in fertility are due to the high rates which prevailed in the past, which are reflected in a large number of women at the age of fertility and hence in a large number of births. This process has had itself resulted in a high rate of international and domestic migration (with different characteristics in different countries), which has led to intensive urban growth marking the region off from the rest of the developing world. It is within this context that the relationship between population, environment and development must be viewed.

This demographic behaviour, which in any case is characterized by slower population growth, is, undoubtedly a positive phenomenon in terms of less pressure on natural resources and the environment. Although it does not apply to every country in the region, it means that in most countries environmental policies and demographic growth complement each another.

The urban population, which now numbers close to 310 million, is increasing annually at a rate considerably higher than the total population (2.8% as opposed 2.2%); the mainstream of internal migration has in nearly all the countries of the region flowed towards urban centres, and rural settlements have been transplanted to urban areas. It is expected that by the end of the century three quarters of the population of the region will reside in urban areas (400 million).

Many cities, the large metropolises in particular, have experienced marked environmental deterioration ranging from air, food and water pollution to precarious living conditions for huge sectors of the population. For example, with regard to the latter, the combination of problems relating to housing, services, social infrastructure and access to centres of activity produce a phenomenon known as "false urban development" in that the population as a whole cannot be provided with access to all the benefits of development.

To cite just a few statistics relating to environmental health: between 1981 and 1988, water supply services in the urban areas of Latin America broadened their coverage from 84% to 88% of the population, while the coverage of sewerage services rose from 44% to 49% (PAHO, 1990). The poor sectors of the urban population -which are relegated to the worst physical locations in terms of both access (the outskirts of the city, hillsides) and their exposure to conditions that pose serious health hazards (such as garbage dumps, industrial and other waste and severely polluted rivers)- tend to increase in density, and this leads to overcrowded housing and an overall reduction in access to the minimum benefits to which every human being is entitled.

Mexico City, whose estimated population of 20 million as of 1990 makes it the world's largest city, has been pointed to as a clear example of "urban pathology" (United Nations, 1991). This
is the result of a discordant pattern of development, a large-scale rural-to-urban migratory flow within the country and the sheer impossibility of providing urban goods and services to such a huge population. There are a great many complex problems to be resolved, but the most serious of them all is the air pollution caused by, inter alia, the high concentration of motor vehicles and industrial plants in an area subject to adverse geographic and climatic conditions which, moreover, are conducive to the deposition of various types of pathogenic micro-organisms in the air. It is estimated that environmental pollution has increased by 150% in the last ten years.

This situation, which is to be found in many large cities, is greatly compounded by the poverty and lack of opportunity existing in rural areas. From a demographic standpoint, however, in recent years the overall growth rate of the rural population of Latin America and the Caribbean has been very low; indeed, the annual growth rate of the region's rural population was 0.8% in the 1950s but had dropped to 0.5% by 1985-1990 and is expected to continue its descent. This low growth rate is due to the fact that, although rural areas still have higher fertility rates than urban areas, they also have higher death rates, as well as being subject to outward migration on a large scale, particularly of selected groups such as women of childbearing age.

Although the growth rates of the large metropolises have slowed in recent years, a need is seen for policies to promote the development of medium-sized and small cities.

The individual characteristics of the situation in each country make it difficult to make valid generalizations, but the substantial changes which have taken place in Latin American agriculture certainly merit attention. The main such processes to have been observed (ECLAC, 1984) in rural areas are: the expansion of commercial agriculture organized in the form of capitalist enterprises, along with the replacement of permanent farmworkers by temporary agricultural wage earners; the survival of peasant agriculture and its continued shortage of resources; and the extension of the agricultural frontier, which has had extremely controversial results.

While it is true that these processes have resulted in a greater proletarization of the labour force, they have also contributed to the emergence of a semi-proletariat peasant subsector whose members, although still not entirely disconnected from the subsistence economy, participate in the market on a seasonal basis as wage earners. Meanwhile, the extension of the agricultural frontier, which has been viewed as a remedy for the shortage of jobs and the inequalities that exist as regards access to land, has produced highly debatable results in the principal countries where it has taken place (Brazil, Colombia, Ecuador, Bolivia, Peru, Mexico, Panama and Paraguay) not only because of its
dubious viability from the standpoint of the redistribution of the population, but also because of its adverse ecological impacts and the problems it creates in terms of the human environment.

Most of the rural population in frontier areas does in fact live under very difficult conditions, which include a low standard of living, makeshift housing, and very limited access to education and medical care; these factors tend to result in poor nutrition and pave the way for the spread of disease. One problem to which attention has recently been drawn, for example, is the reappearance of malaria in a number of areas where it had been eliminated and its appearance in new areas, particularly recently opened-up frontier areas in the greater Amazon basin. Some of the factors said to contribute to the spread of this disease, in addition to the vectors' resistance to traditional methods of fighting it, are substandard housing and inadequate living conditions in general, a lack of environmental sanitation and unfamiliarity with preventive measures.

The settlement of new farmland and the consequent displacement of indigenous populations which had maintained their habitat's ecological balance has produced severe environmental damage due to deforestation and the excessive burning of fields, erosion, soil depletion, the loss of flora and fauna, the use of environmentally harmful technologies and the failure to undertake the type of planning which would make it possible to determine a newly settled area's capacity to support a given population and to withstand a given level of economic development.

Indigenous groups are one of the most vulnerable segments of Latin America's rural population. The size of the indigenous population has been estimated at approximately 50 million, but this is quite likely an underestimate, since the criteria used to define this population are generally based on cultural aspects, such as language. Although available estimates indicate that indigenous peoples comprise only about 10% of the region's total population, in some countries the figure is far above 50%. In many countries (primarily those of the Andean area) no rural development policy can fail to take the specific cultural aspects of the indigenous population into consideration as a prime factor, since it represents around 80% of the total population in these zones.

In most cases, indigenous groups are poorer than the rest of society and live in refuges where the land has been severely degraded. These people's human environment is typical of rural Latin America, i.e., environmental sanitation is deficient, and both drinking water and sewerage services are lacking. However, most of these peoples have a very close relationship with the land, a fact which inherently makes them potential allies of those who seek to protect their environment. When indigenous groups take part in environmentally harmful activities, such as the destruction of the forest in areas on the fringes of the agricultural frontier,
it is usually because they have been forced off the land they originally inhabited and must therefore join the ranks of new settlers in order to survive.

In Latin America and the Caribbean, the relationship between population dynamics and sustainable development takes place in very heterogeneous national conditions. There is a wide range between those countries that have reached advanced stages in their demographic transition, with abundant renewable natural resources and little rural-urban migration (such as Argentina and Uruguay), and those which are radically different in these three dimensions (such as Haiti and El Salvador). This mixture of circumstances makes it advisable to redouble efforts to develop national typologies from the standpoint of sustainable development.

The organizational structures of these communities might be enlisted to carry forward sustainable development programmes aimed at restoring land to its former quality by means of a combination of traditional technologies and modern-day scientific advances. Financial and technical resources should be provided to upgrade these people's capacity to perform their production activities by combining their natural relationship with their environment—which is an essential part of their culture—with modern technologies that are in keeping with their way of life.

In Latin America and the Caribbean, the relationship between population growth and sustainable development unfolds within the context of widely differing sets of circumstances in the individual countries. In view of this heterogeneity—which encompasses everything from countries that are far along in their demographic transition, are rich in renewable natural resources and are not subject to large-scale migratory flows from rural to urban areas (such as Argentina and Uruguay) to countries where the situation is radically different in terms of all three of these parameters (such as Haiti and El Salvador)—we would do well to redouble our efforts to prepare country typologies from a sustainable development perspective.
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