Leading Article

Health and desertification

The only possible way to grow up is in a healthy body. And this statement is not only valid for an individual, but also for the whole world. Therefore, three of the eight Millennium Development Goals (MDG) are related to health. They are as follows: 1) Reduce child mortality, 2) Improve maternal health, 3) Combat HIV/AIDS, malaria and other diseases. In this sense, the main purpose of this edition of the Digital Newsletter is also related to health: to the health and degradation of land.

Although amnesia is not an illness typical of desertification, some facts seem to prove otherwise: dried-up and ill-treated lands which do not recall having been a source of human food, loss of ancient practices connected to good land use and care, water resources that are no longer worthy of the name. Desertification does not only occur due to natural causes, but, in a high percentage, it is a consequence of oblivion, neglect and of lack of foresight.

Women, in body and soul

The Fourth World Conference on Women (1995) established that rural and indigenous women are who are specially affected by environment devastation. Due to the fact that in the world, women are those who stay in affected areas, they should directly suffer desertification, drought, soil exhaustion and scarcity of resources —among them, the difficulties in having access to health services—, as their daily subsistence depends on some sustainable ecosystems. For this reason, the Conference, in its Platform for Action, urged the international community and particularly both the civil society and the private sector to take strategic measures to overcome gender inequalities in the management of natural resources and in the environment protection.
Poverty and Environment

The breach between the rich and the poor widens over the years. The World Bank estimates that 1900 million people will live on a dollar—or less—a day by 2015. However, poverty is not only defined in economical terms. According to the UNDP, poverty is also measured in terms of malnutrition, illiteracy, health care and of lack of access to water, and to other resources that jeopardize health conditions. As a consequence of the global financial crisis, the situation has got worse for the poorest, besides having added to this list in an alarming way.

“Most vulnerable social groups will be deeply affected as the result of an increase in unemployment and a rise in informal unemployment (...). This situation, in turn, will imply an increase in poverty (preliminary estimates indicate that at least 15 million people will add to the existing poor in Latin America and the Caribbean), in malnutrition and in exclusion from utilities. All this will increase inequality levels which, in themselves, are the main historic problem in the Area. The impairment of these social drivers added to that of other social factors will have a relevant impact on the health of people, especially of those groups who live in situations of extreme poverty (...). To the lower personal and family capacity of bearing out-of-pocket health expenses is added the higher competition poor people will have to face in order to use free utilities, due to the fact that the impoverished middle class or the unemployed and uninsured working class is moving towards the public sector. Besides, there is a risk of downsizing or of cutting the assigned budget to utilities because of a possible tax revenue reduction resulting from a lower economic dynamism. This occurs just when, due to the financial crisis, international assistance for development is also under big pressure. This kind of perfect storm means a threat to the possibilities of achieving the Millennium Development Goals and of facing backward steps in the area’s public health field".

Mirta Roses, Director of the Pan American Health Organization (OPS, according to the acronym in Spanish)

Ecosystem exploitation comes together with poverty. According to the UNDP, "poverty usually confines the poor who live in the rural environment to marginal lands, contributing therefore to the acceleration of erosion, to the increase of ecological vulnerability, to landslides, etc.". The need of using inappropriately natural resources for doing such daily and necessary tasks (cooking, dwelling heating, etc) leads to deforestation. Thus, the environment in which people with the lowest resources live becomes more and more inhospitable and hostile. This situation multiplies in thousands and thousands world spots and it expands out together with other factors, such as population outbreak. This situation results in diseases. In a June 2006 report by the World Health Organization (WHO) points out that the fourth part of the diseases suffered by the planet’s inhabitants arise from environmental problems. Thus, during the last decades of the XX Century, there was a parasitic disease breakthrough related to the difficulty of accessing to fresh water as well as to the deficiencies in health services.

On 8 October, 2008, in a meeting of experts held in Madrid and organized by WHO, a research program was agreed in order to build a framework based on evidential data and directed to the action for the public health impacts of climate change. This plan aims at awaking the research activities that relate climate change to health from the slumber they are in; so as to strengthen the evidential database that will be evaluated at the 15th Conference of the Parties under the United Nations’ Climate Change Convention (COP15) to be held in Copenhagen in December 2009.
The research plan points out four priority issues:

* Interaction with other drivers and trends affecting health. This subject deals with the relation between climate change and economic development, globalization, urbanization and lack of equity with regard to the exposure to health risks and access to attention.

* Direct and indirect effects. Although the short-term effects of climate change are well-known, it is necessary to deal with the long-term effects in depth. At this stage, growing droughts, the reduction in fresh water resources and population displacement are included. All these factors have an impact on health –both physical and mental– and special attention should be paid to children and other vulnerable groups.

* Compared effectiveness of short-term interventions. It is necessary to evaluate comparatively the different approaches that countries have tackled climate-related health threats in order to contribute to classify intervention effectiveness.

* Evaluation of the sanitary effects of the policies of areas other than health. In order to mitigate climate change, it is required a quick review of the impacts specific measures have on health. Moreover, it is necessary to evaluate adaptation policies in other areas, as they may bring about negative effects (biofuel promotion in alimentary security and malnutrition), and the potentially positive effects of policies related to sustainable energies and transport.

* Strengthening of public health systems encountering the health effects of climate change. It is necessary that health system interventions in relation to climate change go beyond basic competences with regard to public health: deeper knowledge is required to identify the most efficient means, so as to apply health-related preventive and integrated policies that allow reducing threats in relation to climate change but also all environmental health risks.

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Science, zoonosis and desertification

**What is a zoonosis?**

Zoonosis is a disease that can be transmitted from vertebrate animals to human beings in natural conditions. Some of the most well-known examples of zoonoses are hydatidosis, brucellosis, hemorrhagic fever and hantavirus. These diseases require two hosts to develop: man and a proper environment. Desertification affects environment and, thus, makes easier or more difficult the presence of illnesses. Examples of this fact are an increase in the mice population or changes in social habits that make small Patagonian producers move to town with their dogs infected with parasites due to the lack of profitability in establishments. Consequently, they modify their coexisting habits with their animals and hydatidic parasitosis increases in the human population.

In this way, desertification brings about emerging —that appears in a population for the first time— or re-emerging diseases. The latter are well-known and meant a problem for public health in the past and have grown or even reappeared, during the last years.

*Patricio Ghirardi, Doctor of Veterinary Medicine, Consultant GEF Patagonia*

Within the framework of the Conferences on Desertification, Zoonosis and Animal and Human Behaviour called "Desertification as an emerging and re-emerging factor in Zoonosis", held in the Universidad Nacional de Mendoza and organized by the Agreste Foundation in the frame of the NAP, Dr. Ricardo Ferrari posed the possibility of considering desertification from a transdisciplinary point of view, without delimiting it to a specific cause and a consequence, and without approaching it from only one science. He explained that, although the world went through climate change processes in the past, the difference with the present is the time in which they are occurring: evolution was an answer to these changes, but the speed of current change makes difficult to get an answer.

The changes produced in the behaviour of the different species and their consequences are closely observed: these changes in desertified areas have an impact on the regions which desertification has not reached yet, as they disorganize and change them. That is why it is necessary to consider the environmental system as globally as possible, taking into account that a simple change occurring in some place in the country can impact on the "global village". This shows that to limit approach to only one science makes that all causes of desertification fail to be considered.

On the other hand, Doctor of Veterinary Medicine Gabriel Capitelli referred to the changes in animal behaviour that were caused by climate changes and especially by desertification. These changes have effects on human health. Thus, he
explained that desertification processes are making zoonosis reappear.

A clear example is deforestation, which forces animals out of their territory towards urbanized areas. This causes the interaction between the different species and the resulting risk of transmitting diseases. That is how indiscriminate deforestation of the Misiones forest led monkeys infected with yellow fever towards cities, causing this disease to reappear among human beings. Finally, Dr. Alfredo Seijo stated that climate and environmental changes cannot be considered in isolation: different contexts, such as the biological, cultural, social, political, etc., should be taken into account. In relation to the ideas expressed by Ghirardi, urbanization accelerated processes, in which ecological niches coexist—capable of lodging ill animals— with highly-populated urban areas— in which migration is combined with poverty and the resulting unmet basic needs—, becomes a breeding ground for diseases that, 20 years ago, were thought to be eradicated from Argentina and now begin to be considered epidemics, as for example leptopirosis, hantavirus and yellow fever.

Earthquakes, volcanic eruptions, avalanches, typhoons, seaquakes. Throughout history, natural disasters have occurred without man be to blame and unable to do anything but take some precautions. That was the situation until climate change, a process without beginning or expiration date. Man’s actions have an impact on world climate, which, among other consequences, affects human health. Floods, droughts and heat waves give rise to diseases, such as malaria and dengue fever. And, as it is usual, populations which are in most danger are those of developing countries, particularly, small insular states, and arid and high mountain areas. Both the health of the planet and human beings requires that appropriate health measures be taken. This should be done responsibly and without thinking that plagues and diseases only occur half a world away. It is time to recover memory and respect for land.

Sources:
* World Health Organization (WHO).
* Pan American Health Organization (OPS).
* Patricio Ghirardi, Doctor in Veterinary Medicine.

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5 June: World Environment Day

World Environment Day was established by the United Nations General Assembly on 5 June, 1972 to mark the opening of the UN Conference on the Human Environment held in the city of Stockholm, Sweden.

World Environment Day is considered one of the most important events in the ecological calendar and it is celebrated over 100 countries. The main purpose of this day is to focus world attention on the importance of environment care and to stimulate appropriate political actions. For this reason, year after year, different activities are carried out; all of them directed towards renewing the commitment with the protection of environment in order to reach a sustainable future for the Earth.

The theme for 2009 is “Your Planet Needs You-UNite to Combat Climate Change”. It reflects the urgency for nations to agree on a new deal at the crucial climate convention meeting in Copenhagen, Denmark, with the purpose of spreading the links with other issues related to the environmental problem, such as overcoming poverty and improved management of forests. The message aimed at world leaders, for the above-mentioned meeting, asks them to be united to find a solution for the climate change problem that be fair, well-balanced, effective and science-based.

According to Ban Ki-moon, United Nations Secretary General, climate change is the big challenge of our time. And 5 June will be the date for turning words into new actions.
The main purpose of the National Action Programme against Desertification (PAN, according to its acronym in Spanish) is to fight against desertification and to mitigate the effects of drought, so as to contribute to achieve the sustainable development of affected areas and, therefore, to improve the population’s life conditions. In this search, it is intended that people build up a bond of respect with land, use it to meet all their needs and do not abandon it. Through diverse publications of the Digital Newsletter, it has been verified, from different angles and from many opinions that, in spite of the fact that this task is not simple, many institutions and organizations work, from many approaches, in order that attempts become concrete realities.

One of these organizations is RESPONSE, a Non-Governmental Organization for Development (NGOD). RESPONSE not only promotes social and economic opportunities for the recovery of villages that are in danger of disappearing or undergoing serious crises, but also encourages their people to play a leading role in the change process. Victoria Ferro, who is in charge of RESPONSE’s press and communication area, tells that this NGOD was born thanks to an academic research work called “Villages at risk of disappearing in the Argentine Republic”. This study —carried out between 1991 and 1998, within the framework of the Technical and Scientific Research National Council— allowed to identify 430 villages in process of disappearing. Figures updated by the 2001 Census increased the number of villages to 602. The factors that can make a town disappear are diverse: the end of the main financial activity which led to the village creation, the closure of a train station, the isolation caused by the paved road outline being away from the old dirt roads, the lack of investment in the existing roads, the reduction in the population of each of the involved communities, the weakness of service infrastructure, the lack of mass transit that allows inhabitants to move from one place to another, the lack of investment in formal and informal education by the Government, the lack of income sources, and the impossibility of having access to information and to general opportunities.

The Calling is RESPONSE’s strategy "to find and choose those villages that are eager for working for their future and that are ready for taking advantage of any opportunity of progressing they may come across", Ferro states. Then, she adds that, in order to apply for the selection process, interested communities should meet certain requirements and carry out different activities. Those towns with a population of up to 2000 inhabitants are eligible for RESPONSE’s proposal. The average population of the towns this organization has been working in so far is between 370 and 400 inhabitants. The region in the country with the highest amount of towns in process of disappearing is the Pampean area, where there are 489 villages at risk. RESPONSE has been also working in Norquincó (444 inhabitants), Río Negro and, for two years, in Andalhualia (339 inhabitants), Catamarca. Other towns have attended RESPONSE’s calling: on behalf of Río Negro, Cerro Policia (231 inhabitants); on behalf of La Pampa, Falucho (151 inhabitants), Maisonave (257 inhabitants), and Ojeda (68 inhabitants), on behalf of San Luis, Las Chacras (1121 inhabitants); on behalf of Jujuy, San Juan de Misa Rumi (124 inhabitants).

Disappearance of towns and loss of land production

When land runs out, villages also do. Therefore, RESPONSE implemented a programme called “Self-sustaining Villages”, which aims at improving the relationship of man with his environment and, thus, take sustainable advantage of all resources.

According to Victoria Ferro, there is a directly-proportional relationship between village disappearance and rural migrations that cause poverty concentration in big cities. “Unfortunately, people migrate to the city in search of a better future; poorly trained and with a low income to settle there. In general, they end up settling in the margins, living in indigence and fighting against poverty. They live in worse conditions than they did in the past. This is the process RESPONSE intends to reverse”, Ferro states.

Self-sustaining Program

This initiative is framed within the line of action called "Production and Work", which proposes small rural populations’ self-supply and good alimentation out of natural resources. It is based on a digital platform that uses a Geographic Information System and provides specific guides about potential cultivation that, according to the weather conditions and the land they live in, would benefit rural inhabitants and their families. This program intends that small producers, based on their knowledge of their land potential, achieve to produce their own food and to keep a healthy diet. Moreover, it is intended that they notice the possibility of producing a higher amount of basic food products to sell in neighbouring cities in order to increase their income and overcome the scourge of hunger and poverty.