



National Action Programme to Combat Desertification

Department of Land Conservation and Combat Desertification of the Secretariat of Environment and Sustainable Development

Digital Newsletter

ARGENTINE REPUBLIC

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Table of Contents

Leading Article

Agenda

Desertification and its implication on food security

"Desertification and drought affect sustainable development through their interrelationship with important social problems such as poverty, lack of food security, and those arising from migration".
Octavio Perez Pardo, of Soil Conservation and Combat Desertification of the Secretariat for Environment and Sustainable Development (SAyDS, for its name in Spanish)



One of the United Nations Millennium Development Goals is to eradicate extreme poverty and hunger, specifically, to reduce by half the proportion of people living on less than one dollar a day, in the period from 1990 to 2015. Those who have not direct contact with these problems are not unaware of the news on them the media broadcast. Due to this reason, it is not hard to understand why hunger and the lack of food security are so closely and dangerously related.

The UNCCD —in a document prepared by Professor Uwe Holtz for the Eighth Parliamentary Round Table— affirms that the high food prices and the world financial crisis that began in 2007 drove people even closer to hunger and poverty. And it is not necessary to be an expert on economic issues to imagine that underdeveloped countries are the worst affected. Moreover, if we analyze it further, it should be indicated that those living in rural environments —mainly in drylands— and who depend on natural resources face the worst possible scenarios, as, in addition to the lack of these resources, there are the effects of desertification and drought. And if this is not enough to make the situation clear, it should be pointed out that most of poor rural people in the world live in low-production potential areas, generally in poor areas with water, flood or extreme temperatures deficit. This is how the possibilities of producing food disappear and ancient knowledge is either lost over the years or becomes less and less functional to the needs of the settlers who live on the land.

LEADING ARTICLE
1.-Desertification and its implication on food security.

BRIEFS
2.-Questionnaire of the NAP Argentina Digital Newsletter.

BIODIVERSITY IN DRYLANDS
3.-Species living in drylands: quinoa.

ENVIRONMENTAL DICIONARY
4.-Anthropism, Aridity.

OUR PEOPLE
5.-Paz Argentina Quiroga.

May 10, Buenos Aires
Regional Seminar on Energy Efficiency and Renewable Energies. Strategies for Market Development..
More information:
dcortina@cadicaa.com.ar

May 14 to October 15, Buenos Aires
Course "Expert on Protected Natural Areas Planning".
More information:
www.webstore-inn.com.ar

May 19 to 22, Cancún, México
VII International Symposium "Environmental Sustainability of Agricultural Management Systems in an Ever Changing World".
More information:
<http://topsoil.nserl.purdue.edu/AgroEnviron2010>

27 May - 14 June, Galillee College, Israel
"High-Performance Milk Production" and "Innovations in Agricultural Management and Water Resources".
Scholarship request forms will be received until 10 May.
More information:
gwolcoff@galilcol.ac.il

June 7 to 18, Mendoza
First South American course on methodologies for land degradation assessment in drylands, within the context of the LADA/FAO Project.
More information:
mcorso@ambiente.gob.ar
vpietragalla@ambiente.gob.ar

Outstanding dates of the month
April 22, Earth Day

It was celebrated for the first time on April 22, 1970. Its purpose is to raise, through concrete actions, environmental awareness in the population all around the world.

Periódico Digital elaborado por la Dirección de Conservación del Suelo y Lucha contra la Desertificación de la Secretaría de Ambiente y Desarrollo Sustentable

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Food security keeps the idea of balance and not only from the nutritional point of view. It is a right all should have, to which everybody should access. Therefore, food insecurity appears when this balance is missing, when in some places, people live in dry and unproductive lands which have lost everything, so as others could have too much. And Argentina moves uncomfortably between that old concept of being considered the "breadbasket of the world", the idea of being a food producer, the belief that a seed is thrown on the ground and it will grow just because, and between the notion that the lack of food is a reality, specially in drylands.

A key concept

The Dictionary of Humanitarian Action and Cooperation to Development points out that the concept of food security was born in the seventies. This concept made possible to give a framework to the problems related to hunger, their causes and their dynamics, besides becoming a reference to which public policies and international aid should pay attention to with the purpose of mitigating this kind of situations.

It is worth emphasizing that food insecurity is not the same as hunger, as it also refers to the possibilities of hunger in the future.

World hunger and the lack of resources in rural areas

Although it is not marked in conventional calendars, October 16 is World Food Day. As the Food and Agriculture Organization of the United Nations (FAO) points out, it is essential that the whole world realizes that not everybody works in offices and factories: the crisis is also staking the small scale agricultural operations and rural areas, where 70% of the world's hungry people live and work.

In the World Summit on Food Security, held in Rome, in November, 2009, the world leaders who had been invited committed themselves to work to eradicate hunger from the face of the earth permanently and as soon as possible. The agricultural investment promotion is other of the agreements aimed at eradicating hunger and keeping food security. Jacques Diouf, FAO Director-General, emphasized the need of producing food in the places where poor and hungry people live, besides increasing investments in these areas which require the strength necessary to overcome the lack of production and food.

It is well-known that arid lands, and their different subtypes, are the most vulnerable to the weather effects. And not only these lands suffer vulnerability, but also their settlers, especially if we take into account that a great part of them depends on crop and livestock production for their subsistence. Furthermore, if we refer to drylands, only 25% of them, in the whole world, are suitable for cultivation. These conditions cause an unprecedented food crisis, aggravated by desertification and drought.

"The gravity of the current food crisis is the result of 20 years of under-investment in agriculture and neglect of the sector. Directly or indirectly, agriculture provides the livelihood for 70 % of the world's poor". **Jacques Diouf**

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Excessive crop cultivation and grazing, deforestation –issues that are often supported by laws or inappropriate agricultural practices–, faulty water drain and dozens of bad practices result in the resource exhaustion, hunger, migration and degradation.

According to Amartya Sen, Nobel Prize laureate in Economics, the food problem is always related to politics: although drought and other natural phenomena can cause famine situations, the absence of proper policies and inaction are the real cause. Furthermore, he points out that the problem does not lie in a nation's food availability, but in the lack of access to them by some sectors of the population.

Argentine situation

Extreme droughts have become a concern for the UNCCD Executive Secretary, Luc Gnacadja, as they jeopardize food security. Moreover, one of the places he focuses on in order to show the advance of this problem, together with Australia and China, is Argentina. Mitigating this problem requires an international coordinated action that can be sustained in the long term.

"The world needs to increase its efforts to tackle the unpredictable and extreme occurrences of drought", said Mr. Gnacadja. "In its latest assessment, the Intergovernmental Panel on Climate Change (IPCC) forecast that the length and severity of droughts would intensify in the future. (...). The IPCC report also revealed that climate-related disasters in Latin America have more than doubled. The drought in Argentina is just a further example". Thus, a scene of withered plants, scant rains and livestock suffering the effects of heatwaves causes great concern in farmers and stockbreeders.

According to Gnacadja, comprehensive early warning systems are the key to solve the problem in these areas. Such systems could be a precious tool for governments, institutions and farmers to anticipate and better prepare for longer and recurrent droughts.

"The food crisis continues in countries that deal with erratic rainfalls, like in Sub-Saharan Africa. In addition, many of these countries are food importers, so to see the extreme drought in Argentina, Australia, and now China, is indeed alarming", expressed Mr. Gnacadja.

In order to have a clear vision of the situation, it is necessary to emphasize that drylands occupy 75% of the national territory (15% of semiarid areas and 60% of arid areas) and 22% of these drylands are subject to different erosion processes. Such drylands are the place where 50% of the agricultural and 47% of the livestock productions are carried out, besides being the home of 30% of the Argentine population. Agricultural Engineer Octavio Pérez Pardo points out: "According to approximate and estimated data, it is acknowledged an advance of desertification in the country of up to 650,000 hectares (the continental territory of Argentina covers a surface close to 280 million hectares) per year according to the data provided by the [National Institute for Agricultural Technology](#)".

The shortage of water resources, the advance of desertification, the dangerous situation in which 40% of vegetal and animal species are, and the problem of land possession —the fact of not being an owner does not either promote restoration activities or the maintenance of soil quality— cause poverty, hunger, migration and social instability.

Elena María Abraham (CONICET, for its name in Spanish) states that one of the biggest desertification problems in Argentina is that caused by the disordered and anarchic growth of urban zones on fragile lands, and that desertification of peri-urban areas has its origin in the pressure they suffer due to marginalized groups and migrant people from rural areas.

Food is not only essential because it allows to keep a body alive. It is also a symbol of a society, as it refers to identity, land settlement, work, dignity and security.

Agricultural production in numbers

The amount of agricultural establishments in drylands rises to 143,370, over a general total amount of 333,500. In relation with agriculture, the cereal and oilseed plantations are the largest ones, with 3.3 million hectares sown. As regards livestock, bovine cattle stands out, followed closely by ovine cattle. The number of heads of caprine and camelid cattle is much lower.



Desertificación, seguridad alimentaria y género

La equidad en las tareas que desarrollan los hombres y las mujeres que habitan en áreas rurales de tierras secas es para la FAO un punto estratégico para revertir situaciones de seguridad alimentaria. El Análisis de Género permite evaluar las tareas, orientar de forma más acertada las intervenciones en favor del desarrollo y de la participación de hombres y mujeres, y crear políticas de planificación sustentable que no pierdan de vista los roles según el género.

En respuesta a la degradación y a la desertificación, para la FAO es fundamental aumentar y apoyar la seguridad alimentaria en consonancia con el principio de igualdad de géneros.

Sources:

* Biólogo Ricardo Bareiro.

* Holtz, Uwe, document "Parliaments' Contributions to achieve food security and face climate change in arid lands within the framework of the current economic crisis", UNCCD.

* UNCCD.

* FAO Argentina.

* Abraham, Elena María. *Combat against desertification in Argentina's drylands*, 2002.

Questionnaire of the NAP Argentina Digital Newsletter

Dear Friends:

As it may be known to you, last March, we e-mailed you a brief questionnaire on the content of the NAP Argentina Digital Newsletter. This questionnaire was elaborated with the purpose of exchanging opinions with you, our readers, so as to be able to improve this publication.

We would like to thank the great amount of answers and the valuable contributions we have received. Among them, it is worth standing out the need of adding new sections, themes and contents. Since the previous issue, we have begun to meet some of these requests progressively and timely.

This questionnaire is very useful for us, so we invite all those who have not fulfilled it yet to join this initiative by entering the website www.ambiente.gob.ar/periodico.

Biodiversity
in Drylands

2010 International Year of Biodiversity



Species living in drylands: quinoa

Quinoa is a feminine term that comes from the Quechua voice *kinúwa* or *kínua*. For those who live in cities, it is a grain that can be bought in health food stores. For the inhabitants of the Andean region, it is much more than that: it is the possibility of producing food in dryland areas, threatened by desertification, and of recovering sowing-related ancient customs.

The essential characteristic of this plant is its edible and abundant seeds. Thus, it was one of the Inca people's main sustenance; they cultivated and grew it before Spanish conquerors arrived. The Spaniards believed the Andean indigenous people's remarkable physical resistance was due to this cereal and, consequently, they forbade – unsuccessfully – its consumption in the Viceroyalty of Peru.

Indigenous people cultivated it on the slopes of the Andes mountains, in terraces built with stones, fertile soil from the valleys and marine bird manure. Therefore, they used the rainwater that flowed from the higher levels. The ancient and careful cultivation of quinoa brings to the table a current environmental problem which is related to desertification: the need of moderating the use of land resources. As the soil was very limited, the indigenous wisdom let it rest, so as its fertility could restore naturally.

Quinoa can grow in adverse weather conditions, such as in below zero temperatures and in heights up to 4000 metres above sea level. This is an extremely "plastic" specie, as it adapts to different natural environments. It can be cultivated at low costs and without the aid of chemical inputs, which means a highly-relevant possibility of reducing hunger and malnutrition, as long it is exploited by family agriculture and periurban populations under social fragility conditions.

Quinoa fields survived the fires caused by conquerors and, nowadays, they do survive the hostile climate conditions in drylands and those caused by drought. Due to this reason, its promotion and cultivation is again considered when implementing the tools to combat desertification.



Image:
Project "Sustainable Management of Natural Resources in the South American Chaco".

Paz Argentina Quiroga

She was born in Puyuta, *Warpe* territory, in San Juan province, and she is a member of the *Warpe* community on Kuyum territory.

Paz is an *Amta*, that is to say, a spiritual guide of her community, besides being a member of the Wise Men and Spiritual Guide Southern Hemisphere Council.

Paz achieved the legal capacity of her community in 1996. This recognition took too long to be obtained, as the existence of the *Warpe* People was denied because it was believed that this community had disappeared 250 years ago.

The reorganization of the community also took long and was a hard task. In order to achieve this, Paz and her people traveled the provinces of San Juan, Mendoza and San Luis, looking for their *Warpe* relatives. The last official census identified around 16,000 people of *Warpe* descent, and this figure could be higher, as many have not been yet registered on the census..



At present, the *Warpe* people are organized into groups that live in different regions, with unequal life conditions. As some areas suffer drought, they lack drinking water, and other ones simply cannot have access to this resource, since the river is contaminated.

The *Warpe* people pass on their worldview in all spheres of formal education, in public as well as in private schools. The core of educational work is always the relationship of mankind with the land. Thus, they work together with teachers, passing on their ancestors' knowledge and traditional wisdom to both recover organic seeds and work the land in a sustainable way.

In the community, women and young people prepare traditional food, as well as non-alcoholic drinks and native fruit jams. Furthermore, training is provided, so as people learn to make solar ovens and cookers as a way of combating desertification.

Recently, the Governor of Mendoza, subscribed a decree by which 106,000 hectares were granted to the *Warpe* people. Furthermore, they were granted 660,000 hectares that were subject to expropriation by the current owners. This measure benefits 4,000 *Warpe* people who live in 11 communities distributed communities spread all through the territory of Lavalle.

Anthropism:

In the environmental sciences field, its meaning is related to the changes caused by human activities in the natural environment.



Aridity:

According to the GD (Geology Dictionary), "it is the ratio of a region's potential annual evaporation, as determined by its receipt of solar radiation, to its average annual precipitation".

Source:

* Matallo Junior, Heitor. *Glossary of terms and concepts used in the context of the UNCCD*

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