

EXECUTIVE SUMMARY

Even though being one of the few Central American countries that still contains a considerable extension of forest land, Nicaragua experiments a severe process of desertion and degradation of its grounds with an annual deforestation rate of 120,000 hectares per year, which accelerates the loss of natural resources and the bio-diversity, provoking scarcity of superficial and underground waters and the definite erosion of the grounds.

This situation of severe environmental deterioration is due to causes like the overexploitation of the grounds, unsustainable agricultural and forest practices, forest fires and agricultural burning, added to droughts and hurricanes and a high level of poverty demolishing at the productive activity and rural unemployment. With the passing of Hurricane Mitch in October of 1998, the environment suffered an additional damage that worsened the existing precarious conditions.

Having analyzed the environmental situation's background, the Government of Nicaragua, in the framework of the Summit of the Earth celebrated in Rio de Janeiro, in 1992 and from the Capacity 21 Program, ratified the United Nations Convention in the Fight against Desertion and Drought (UNCCD), in October of 1997 with the help of the international community, it's arranged to cooperate in the implementation of measures that the problem demands.

Mean while, the main objective of the current National Report is the accomplishment of the lineaments suggested by the Conference of the Parts (COP1, Rome, 1997), and also to show countries Parts of the Convention in the Fight Against Desertion, Nicaragua's situation regarding the adopted measures for the implementation of the UNCCD at a national level and to supply an evaluation of the reached progress, in the application of the convention's objectives.

THE COUNTRY'S GEOGRAPHICAL SITUATION

The Republic of Nicaragua is located between the Republics of Honduras and Costa Rica, between the latitudes 10°45'N and 15°15'N and the longitudes 83°00'W and 88°00'W. It is the largest country (130,682Km², being 120,349Km² of firm land) and the least populated (around 4.7 million habitants) of the region, with an annual growth rate of 2.9%. The Country is divided into 150 municipalities that form 15 Departments and 2 Autonomous Regions.

ECOLOGICAL REGIONS AND HYDROLOGIC VALLEYS

Having in mind the following ecological factors: geology, topography, climate (temperature and humidity), ground and vegetation, to facilitate the study of the vegetation, the country is divided into the following four Ecological Regions.

THE PACIFIC REGION, is the most populated (19% of territory and 60% of the national population), it concentrates most of the agricultural and industrial activities and possesses the deepest and most fertile grounds of the country, which originates the highest demand of water for irrigation, domestic and industrial consumption. The rainy season lasts six months and 67% of the precipitation is presented practically in 3 months. This region contains 50% of the best grounds and it concentrates 99% of the highest agricultural development areas, generating 66% of the country's agricultural VBP, mainly in products like cotton, sugar, rice, sorghum and bananas. It's also the region with the most stable territorial structure, contributing 79% the national IGP.

THE NORTHERN-CENTRAL REGION, second in importance concerning population density (39% of the territory and 35% of the population, most of it rural), it presents a mountainous topography, it is where the main rivers of the country begin. It has more superficial and less fertile grounds than the pacific region. It presents a variety of climates that go from a cool humid climate to a semi-dry climate and experiences a rainy season a lot like the pacific region, affected by a lack of aquifer formations that store and feed the currents in the dry seasons. It generates 19% of the national IGP and 33% of the agricultural VBP (cattle, coffee, basic grains and tobacco) and most of the forestry production.

THE CENTRAL REGION, it's characterized and defers from the others for being a transaction zone between the vegetation of the ecological regions one and two of the Pacific and Northern-central, as well as for the Ecological Region of the Atlantic. The climate is warm and humid in the higher parts. The average annual temperature is about 25°C in the low parts and from 18° to 24°C in the high parts. This region has an extension of about 20,531 Km², with a longitude of approximately 450Km between Rio Coco in the north and Lake Nicaragua in the south, with an average width of 45Km, being 17Km it's narrowest part and 75Km it's widest. In this region there are lands of considerable height that alternate with plains and hills that motivate a great diversity of floristic composition.

In the Central and Pacific regions there's a high variability in the climate. The frequency and harshness of the droughts vary in function of the occurrence of EL NIÑO (ocean-atmospheric phenomenon of climatic alteration on great scale).

THE ATLANTIC REGION (42% of the territory and 5% of the population), it's characterized for its humid tropical forest climate with low and fragile grounds, and a high rainy precipitation that varies between 9 months in the north and approximately 11 months in the south, presenting the highest proportion of water in the country. Its economy is less developed than the Pacific and Central regions of the country, supplying only 2% of the IGP and 1% of the gross value agricultural production (GVP), although it generates 89% of the national fishing and most of the Timber production of the country is extracted from its forests, where the richest bio-diversity of the country is concentrated on.

HYDROGRAPHIC VALLEYS

Besides the ecological divisions, the country is divided into 21 hydrographic valleys, that at the same time are subdivided into two large variants: the one from the Atlantic Ocean or Caribbean Sea that covers approximately 90% of the national territory and the one from the Pacific that covers remaining 10%. The equivalent plate of annual average precipitation is of 224mm, with a national surface runoff of about 5500m³/seg. However, like mentioned earlier these resources are specially distributed in an irregular form: 96% of the national surface runoff drains toward the Atlantic and only 4% goes to the Pacific. In a way that in the Pacific and Center the currents aren't sustained much in a permanent manner, and the existence of ephemeral currents is very common.

DESCRIPTION OF THE DRY ZONES OF THE COUNTRY

To describe the dry zones of the country, we part from the classification of the forest zonal ecosystems, given that these zones are subjects of variable climates, in a way that its existence depends on the influence of factors like the humidity maintained by the average contributions of annual pluvial precipitation, consistent with patterns of local, zonal or regional distribution.

The dry zones are found in seven out of the fifteen departments of the country representing 15% of the national territory, in where 50 % of the population lives. The dry zones are distributed mainly in the ecological regions of the Pacific and Center, possessing a height limit no greater than 500 masl (meters above sea level) and covering a surface of approximately 10,000 to 16,400 Km², divided in two parts:

A dry warm zone, with temperatures between 26° and 29°C, a precipitation between 750 and 1200 mm and a rainy season that goes from May to October, with an altitude that goes from 0 to 500 masl. It's characterized for having forestland, and at the same time it possesses species that indicate drought, like guayacan, escobillo, nacascol and Brazil.

A warm semi-humid zone, which is distributed in the same way as the ecological zones I and II, with the same altitude of 0 to 500 masl and similar temperatures between 26° and 28°C, but with a varying precipitation of between 1,200 and 1,900 mm.

SOCIAL-ECONOMIC CONDITIONS

Nicaragua, according to the Human Development Report of 1999, is located on the 121st place from a total of 147 nations, with an internal gross product of less than US\$2000 per capita. It is estimated that the poverty and the extreme poverty affect at least 50% of the population especially in the rural zones where the level of poverty reaches 75%.

In the last ten years, the country has had an economical growth of an average of 2.4%, with the third activity that has the greatest relative importance in the attribution of the formation of the IGP. Due to the natural physical context of the country, the social-economical development has been based on agricultural and cattle activities and the exploitation of the forests. The main incomes of the country have been sustained in the exportation of traditional products (60%), complemented by the exportation of non traditional agricultural products and by industrial products, manufactured in the free trade zones (40%).

The amounts of the direct foreign inversions ascended from \$35 million dollars in 1993 to \$95 millions in 1998 and were located mainly in commercial activities, tourism, bank services, construction and in free trade zones, with a lack of participation in the agricultural, industrial, and agribusiness productive sectors.

Hurricane Mitch, that destroyed Central America in October of 1998, has been the worst natural catastrophe of the century in the region, it destroyed a great part of Nicaragua's north zone affecting 90 out of the 150 municipalities. The totals of the material damage present more than \$900 million dollars (94% related to the loss in capital and 6% in production). The material losses were mainly in housing, roads, electricity, potable water, communications, health, education and agriculture.

In this context, the municipalities in the dry zones, are characterize particularly for having a population with a high degree of poverty, they are dedicated in the exploitation of remnants of existing forests for the establishment of sub-existing agriculture, which is the main element in the degradation of the grounds. In this sense, the incomes generated by its production are very low, as a consequence of the adverse ecological conditions in that they are found and having a limited level of development in the natural production of energetic species, destined for domestic consumption and some woody species with a high economical value. The population, when suffering the effects of degradation of the earth, in their places of origin, loose interest in cultivating their parcels, and are obligated in seeking shelter in the cities, where they generate other social problems, that affect the population in general.

Nicaragua is one of the few countries in Center America that still maintains a considerable extension of forestland, from pine trees, low tropical humid forests, dry tropical forests, to misty jungles. Lands with forest vocation cover approximately 6.2 million acres, from which 1.8 million have vocation for being conserved and 4.4 million for having a sustained production.

Never the less, it's estimated that these potentials have been submitted to a deforestation that reaches a gross rate of 100,000 hectares per year. The 80's were a favorable period for this resource, because the rate decreased due to the bellicose conflict. Increasing drastically in the 90's due to the activities of colonization, for the distribution of the land to groups of peasants, in extensions of approximately 150,000 hectares per year. In the last three years, this digit has been reduced to the order of 100,000 to 120,000 acres.

Given in Nicaragua, like in most tropical countries, firewood is the main use of the forest, this is another factor that has influenced in the process of deforestation. This activity represents more than 12 times the consumption of the timber industry.

In the other hand, in 1983, the annual consumption of wood used as domestic fuel was ascending to 3.7 million cubic meters (2.6 million ton, 690kg/m³) being the consumption per habitant 0.85 tons per year.

In 1990, firewood represented 55% of the total of the consumption of energy, in comparison with other sources of energy like vegetal carbon with 1% and the petroleum derivatives with 27%.

It's important to mention than more than 90% of the consumed energy proceeding from natural forests, come from the remnants of forests in the dry zone, where some of the important woods or high power heat producing species are found in an accelerated process of disappearance.

Concerning the timber industry, there is an estimate of 76 active saw mills in the country, with a capacity of about 300,000 m³ of wood: 9 companies of second transformation, 41 pine processing companies, 50 companies that process forest wood, makes a total of 100 industries. The production in 1990 was between 70 to 96 m³, with an idle capacity of 70%. The sawmills in general are of small scale, with a maximum capacity of 5,000m³ per year.

INSTITUTIONAL MEASURES TO IMPLEMENT THE CONVENTION

One of the first steps for the Implementation of the CCD has been the confirmation of the National Coordination Organ (NCO), structured by representatives of state institutions and the civil society, to promote the activities and support the focal point and its technical team, facilitating basic information in the discipline of interest, even with out having a juridical personae or an assigned potential budget. It has to be mentioned that due to Hurricane Mitch, this process was interrupted due to a drastic change of priorities and it wasn't until the second half of 1999 that the process was continued, starting the Country Study on Desertion in Nicaragua.

In continuance the description of the developed actions from the initial period to the present date.

CONSULTATIONS WITH STATE INSTITUTIONS

With the purpose of strengthening the work on the convention, meetings with MARENA's department delegates are developed with the objective of explaining in what the Convention consists of, and also identifying relevant elements that can be used as reference, on the deterioration of the ecosystem in their territories.

In the same line, a process of consultation is started with diverse national institutions related to the subject, among these we find the National Forest Institute, The ministry of Agriculture and Forest and the Nicaraguan Institute of Territorial Studies (see point 4.2). The services of INETER were contracted in June of 1998 for the execution of The Classification Map on Available Humidity in Nicaragua, using the Hergreave method, presenting as a result the identification of zones sensitive to desertion. INETER is also obligated to facilitate information on Nicaragua, which is helpful in finding desert-like zones.

On May 15th 1998 the first national meeting of the government concerning the Convention was upheld, with representatives of the aforementioned institutions with the purpose of presenting the Convention and to reach an agreement on the next steps to follow. In this occasion there was participation from the Convention's technical advisers in the Fight Against Desertion and Drought.

MEETINGS WITH THE CIVIL SOCIETY

The involvement of the NGOs and other organizations of the civil society in the activities of planning, sensitization, start and continuance, mobilization of resources and the evaluation of the Convention is considered primordial. The objective is to count on the focal NGOs in each one of the departments so that they can work on the planning, in coordination with government delegations.

A first contact was made on March 3, 1998 in coordination with The National Office of the PNUD, being present environmental NGOs. The objective was to sensitize potential doers in the subject of desertion and to select the NGO that would act as a representative in the first Central American Encounter In the Fight Against Desertion, realized among the assistants, the present NGOs decided to select a temporary representative, the NGO Augusto C. Sandino Foundation (FACS), that participated in an active form in the meeting.

On May 6, 1998 the first National Meeting of the Civil Society on the Convention was summoned, with the participation of NGOs that work on activities related to the subject, to present the Convention and the related activities to its implementation, to select the NGOs' focal points in the affected departments, and to introduce the International Net of NGOs on Desertion (RIOD).

In this meeting it was agreed to meet with NGOs working in the department of Esteli. This meeting took place in the city Esteli on August 18, 1998 where the Convention and a proposal of activities to develop were presented, to begin the job in this department as a pilot of the Convention.

METHODOLOGICAL WORKSHOPS

a. Subsequent to the activities indicated before, five departmental workshops were developed in the frame of the Country Study, with the object of sensitization the sectors and to obtain information on the issue. The seats of the events were the cities of Esteli, Teustepe, Matagalpa, Jinotega and Chinandega where representatives of the bordering cities and municipalities with the same drought problems attended. The development of the workshops was possible due to the attribution of the General Direction of Territorial Coordination, at the request of MARENA that has a wide control over the agencies of the institution.

b. On April 5, 2000 a National workshop on Desertion was realized; representatives of the Civil Society of municipalities in the dry zone of the country and delegates of MARENA, MAGFOR, INAFOR, CONADES, the Legislative Assembly, NGOs and other institutions related to the subject assisted. The workshop's objective was to make known the Country Study, to discuss the proposal of a National Action Plan to enrich and establish an exchange of opinions and to achieve a consensus on the need of a NAP.

All these workshops have counted with the participation of different key administrators in the territories: institutional, municipal city halls, environmental NGOs, women organizations and other civilian society organization delegates. It is important to mention that there was also the participation of a lady specialist in subjects of the same kind, demonstrating the principles in that this method is based on and helping to understand the problems of women in the fight against desertion.

Conferences on the subject were also realized, given by state institution technicians or projects that worked locally on the dry zones, followed by a period of questions and answers about the exposition, this motivated the debate on the subject of desertion. The previous, permitted the participants to clear up some doubts on the subject and to share opinions about the causes and effects of the indicated problem. Documentation and articles on the subject were also handed out to all the participants.

- c. An other important activity that was realized, were the contacts of Nicaragua's focal points with all the delegates of other member countries in the exchange of experiences in relation with the national reports, the elaboration of the NAP and the implementation of the CCD, in their respective countries. For these contacts the meetings of the parts were taken advantage of.

RESULTS AND ACHIEVEMENTS

The obtained results to the present date are the following:

1. The Country Study was elaborated on the desertion of Nicaragua, it counts on basic information on the dry zones; it will serve as a work document that can be enriched, and that includes the fundamental process of implementation of the CCD.
2. A series of workshops on the dry zones will be developed, until concluding with the National workshop in April of 2000.
3. A statistic base was established with cartographic information of Nicaragua's dry zones.

NATIONAL FINANCE

Even though Nicaragua still doesn't count with a National Fund for the Fight Against Desertion and Drought, the government has made efforts with its own budget and with support from the UNDP, for the development of all the activities implemented up to date.

CONCLUSIONS

1. The developed activities in 1998 were very important, the process of spread on the Convention was started and the goals to reach for the Fight Against Desertion.

2. Contacts with NGOs and with government institutions sensible to the subject were established. However, there was an interruption in the implementation of the CCD in Nicaragua, due to the Hurricane Mitch in October of 1998, and also because of the lack of institutional and financial capacity to assign in a professional that could support the focal point in permanent manner.

3. With the support of the PNUD and the government, the process of implementation is continued through MARENA, In August of 1999, obtaining as a result a series of consultations and workshops in the dry zones ending with a national workshop which received the proper relevance. Today we count with a Country Study and a proposal of components for the National Action Program (NAP), that were introduced to consult on April 5, 2000. It is important to show that for the realization of the national workshop, the secretary of the CCD, covered part of the inversion budget.