

FROM WORDS TO FACTS: ACTING ON CLIMATE CHANGE IN CENTRAL AMERICA

ACTION AND FINANCING NOW!

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OXFAM

From words to facts: acting on climate change in Central America Action and Financing, Now!

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Humanitarian Aid
and Civil Protection





Introduction

Climate change will strongly affect the production of food and the life conditions of the farming and indigenous families in Central America. The increase in temperatures and the modification of the rainfall cycles will impact the availability of water for the food production and for the populations. In Latin America and the Caribbean, in the past decade, more than 15 million people were affected by floods while more than 3 million were affected by extreme droughts and almost 5 million by extreme temperatures. Furthermore, according to the previsions of the Intergovernmental Panel on Climate Change (IPCC), the increase in the number of people at risk from suffering from famine could concern 5 million people by the year 2020, and reach up to 26 million by the year 2050.

Almost 2,500,000 persons have been affected by climate in the dry corridor, and between 70 and 80% of this year harvests have been lost. On the other hand, the strong rains that affected Guatemala, El Salvador and Nicaragua have caused the death of dozens of people and left thousands of victims and housings damaged. In Guatemala, 19 people died in May, in total, 483,000 victims have been identified and 5,321 houses were damages, mostly in the north of the country. In Nicaragua, in 2013, 17 people died and 750,000 people were affected during the rainy season. This year, 5 people died, 21,901 were affected and 953 had to be evacuated. In the face of this crisis, we ask that the governments attend this problematic at the required level, during the COP20.

Central America little contributes to climate change, but it will endure some of its most negative consequences. The global warming will increase the magnitude and frequency of extreme climate events such as droughts that will impact the region. This is why during the upcoming COP20 that will be held between the 1st and the 12th of December, it is fundamental that the governments of the region prioritize this question and take immediate actions to implement adaptation policies and provide them with the adequate budget. The damages caused by those hydrometeorological phenomena will be of greater magnitude if no measures are taken in the technological, social and environmental areas soon.

Extreme climate events and droughts:

- **Extreme climate events** such as hurricanes, droughts, tornados, intense rainfalls, snowfalls or frostings are the most frequents and those that cause major damages to the population around the world.
- **Disasters** are natural or man-made events, unexpected or continuous, that have impacts of such severity on a community or a sector that extraordinary measures have to be taken to continue normal activities.
- **The droughts** are one of the fundamental causes of disasters around the world. In the last 30 years, an increase in the frequency and intensity of droughts has been registered in the Caribbean region. A drought originates from a deficiency in rainfalls during an extended period of time. It is a “normal and recurrent climate conduct”¹ Droughts can be of different types:
 - ☛ **Meteorological**, when the rainfalls are below normal in a specific place
 - ☛ **Agricultural**, when the humidity of the grounds does not satisfy the needs to cultivate
 - ☛ **Hydrological**, when the surface and ground-water reserves are below normal
 - ☛ **Socioeconomic**, when the lack of water affects the population

Historically, droughts are a natural phenomenon of enormous significance, as they have cause famines, massive migratory movements and tremendous economic, social and political crisis. Droughts can also be caused by climatic phenomenon such as El Niño, which is accompanied by lack of rain in various parts of the world.

Adaptation and risks management

The adaptation to climate change is the capacity of the human and natural systems to adjust spontaneously or in an orderly manner to the impacts of climate change. It is what we can do to be better prepared. **It is a set of actions and processes that we have the collectively build.**

Preventive actions and policies, especially the long term ones, are those who offer the best possibility to prevent the most damaging effects for people and activities and the vulnerable regions.

¹ Magaña, V. 2004.

The adaptation to climate change implicates to build capacities, to manage the Risk, to modify the productive schemes and our buying habits². It also implies to collectively plan and promote conditions for the financing and the preventive investment³. The strategies in the face of droughts have to be conceived under an approach of **“integral management of the risk”**.

| | |
|---------------------------|---|
| VULNERABILITY | It is the susceptibility or tendency of a community or group of people to suffer damages or losses in presence of a disturbing agent, determined by physical, social, economic and environmental factors. Vulnerability is socially built ^{3,4} . |
| CLIMATIC RISK | It is a combination of the threat of extreme climate, as disturbing agent, and of vulnerability. It presents itself when there is a possibility that unfavorable rainfalls or changes in the temperatures might cause a disaster in the region, as it is highly vulnerable ¹ . The risk is formed by the interaction of a threat and vulnerability ² . RISK= THREAT x VULNERABILITY |
| DISASTER RISK MANAGEMENT | The systematic use of administrative guidelines, organizations, operative skills and capacity to implement policies and strengthen the coping capacities, with the objective of reducing the impact of the natural threats and the possibility that a disaster might occur ⁵ . |
| DISASTERS RISKS REDUCTION | The concept and the actual disasters risks reduction process through systematic efforts aiming at the analysis and management of the disasters' causal factors, which include the reduction of the level of exposition to the threats, the reduction of the vulnerability of the population and properties, the sound management of natural resources and soils, and the improvement of the readiness before adverse events ⁵ . |
| RESILIENCE | It's the ability of a system, community or society exposed to a threat to resist, absorb, adapt and recover from its effects in a timely and efficient manner, which includes the preservations and restoration of its structures and basic functions ⁵ . Oxfam defines resilience as 'the ability of women, men, and children to realize their rights and improve their well-being despite shocks, stresses, and uncertainty'. |

² Landa et al. 2010; Magaña et al. 2011; Landa, 2011; Landa y Siller, 2011

³ ONU, 2004; UNISDRa b, 2009; 2010; 2012;

⁴ Landa et al., 2010

⁵ UNISDRa, 2009



Impacts of the drought in Central America

Honduras is one of the most vulnerable countries in the world as well as the most affected by climate change in the ultimate 20 years⁶. It occupies the first rank worldwide for climatic risks and 19% of its territory already faces insufficiencies of water supplies⁷. Nicaragua and Guatemala are also part of the 10 most affected countries⁸. In Nicaragua, country in 4th place of exposition to climate risks, more than 80% of the poor live in rural and remote communities⁹. In El Salvador, 83% of the 42 disasters that occurred between 1970 and 2011 were hydro-meteorological events. In 2010, around 95% of the country population lived in risk areas and, in 2012 the country occupied the 13th place on the Global Climate Risk index¹⁰.

The impacts of the recent drought of 2014, which affect the region from July on, are overwhelming. Around 2 million and a half people in Central America are now living in a situation of food insecurity. In fact, in the most affected areas, around 70 and 100% of the agricultural production was lost¹¹. Due to this situation, the governments of Guatemala, Honduras and Costa Rica declared the State of Emergency, as the current situation only worsened a crisis already in place due to the Coffee Rust that has been affecting the region for the last three years. This crisis has affected the livelihood of the families of the small coffee producers and day laborers who depends on it. If the same losses are observed on the late production, Honduras, Nicaragua and El Salvador will go through a food crisis that could last at least until September 2015¹².

In Nicaragua, more than 268,000 families were affected by the loss of crops in poor communities of the dry corridor. The government declared a state of public calamity in 16 of the 22 departments¹³.

The World Food Program (WFP) also described the situation as a “humanitarian crisis” for the loss of basic subsistence crops such as corn and frijol in Honduras, Guatemala, Nicaragua and El Salvador,

⁶ Index of Climate Risk 2014, presented during the COP19.

⁷ Germanwatch, 2013

⁸ IBIDEM

⁹ Oxfam, 2014

¹⁰ IBIDEM

¹¹ Oxfam Situation Report, October 10, 2014

¹² IBIDEM

¹³ <http://www.teletica.com/Noticias/68957-Decenas-de-fallecidos-y-miles-de-damnificados-por-lluvias-en-Centroamerica.note.aspx>, 15 October 2014

also qualifying is as the worst drought in over 10 years¹⁴. The international press also pointed at the Dry Corridor as the area where are registered the highest levels of food insecurity in Central America and considers that, “should the situation remain as it is, the region could face a humanitarian crisis similar to the one caused by hurricane Mitch, which left more than 11.000 dead between October and November 1998”¹⁵.

Because of Climate Change, Central America will be affected by important changes in the availability of water. The countries that will be most affected are Nicaragua, followed by El Salvador and Honduras, while the demand could rise by 20 to 24%¹⁶. The previsions show that the variations in rainfalls will be of an average of 5%, but could also go up to 10 and 20%, which would cause a reduction of the production of beans, rice and corn.

The consequences of the drought on the agricultural production in the region will create hunger, malnutrition, loss of income and diminution of life level in rural areas. The drought already affects the alimentation of 236,000 families in Guatemala, 120,000 in Honduras, 100,000 in Nicaragua and 96,000 in El Salvador.¹⁷

Furthermore, the heat waves will increase the risks of sicknesses such as cholera, pulmonary viruses, leptospirosis, encephalitis, dengue and malaria. There is no doubt that the severe droughts will also impact the life conditions of rural women, particularly, as they are the main person in charge of the preparation of food and of water supplies for the household.

¹⁴ <http://www.economiahoy.mx/sociedad-eAm-mexico/noticias/6041745/08/14/Centroamerica-La-sequia-deja-casi-3-millones-de-damnificados-en-Centroamerica.html#.Kku8HyyPFy8FIW5>

¹⁵ http://internacional.elpais.com/internacional/2014/08/23/actualidad/1408805635_701358.html

¹⁶ CEPAL, 2010

¹⁷ <http://www.eleconomistaamerica.com/desastres-naturales-eAm/noticias/6039364/08/14/Oxfam-alerta-del-impacto-de-la-sequia-sobre-dos-millones-de-centroamericanos.html#.Kku8HegeV8GUxrw> 28 ago 2014



Regional political context

- In most of the countries of the region advances in the formulation of policies, the government can rely on planning tools; however, there is an important deficit in their implantation and follow up. The regional cooperation is still very limited.
- Massive investments directed to the regional management of the risks are required. Those investments can be encouraged by international cooperation on climate change.
- If the process of extension of the agricultural frontier in the region maintains itself, the degradation of the environment, the loss in biodiversity and water resources will intensify, and the vulnerability of the population in the face of climate change will increase.
- The actions to facilitate the access of the people living in the poorest areas affected by climate change to land, credit and technical assistance are insufficient.
- The countries members of the Central America Integrated System (SICA) have adhered to the Regional Strategy on Climate Change in the objective to take commitments for the adaptation, but there haven't been any practical effects on the vulnerable sectors. Urgent financings are necessary.
- The actions taken in the face of droughts are fundamentally reactive ones and are limited to the distribution of food to the victims. They are palliative measure in the absence of an integral risk management strategy that would take in consideration the accumulated impacts of repetitive events.
- Climate change still occupies a marginal place in the political agendas, with few exceptions. The topic gains importance in the face of extreme events that are at the origin of large scale disasters, before important international reunions or when climate change is used to justify the deficiencies or irresponsibility of the policies.
- It is up to the countries most affected by climate change to give it the priority it deserves in the international agenda.
- There is a strong contradiction between the expressed political will and the lack of measures and financing for adaptation.

National initiatives

| | Planning | Reaction | Investments |
|--------------------|---|--|---|
| EL SALVADOR | Member of the SICA, part of the CMNUCC since 1995. Strengthening of climate observation. National Politic of the Environment (2012) that prioritizes climate change. Program of restauration for the adaptation. Focus on “mitigation based on adaptation” National Strategy on Climate Change with an adaptive focus. Coordination across institutions. Legislative reforms. Energy sector initiatives. Education and awareness | Packages of seeds and fertilizers. Water rationing and provision of water pipes to complement the deficit. Appeals to late harvesting: <ul style="list-style-type: none"> Harvest in July-August Imports of basic grains. | Project to “Increase the capacity of sustenance of the farmers in the east of the country, to respond against unfavorable climate conditions”. Program of National Action in the fight against Desertification and Drought in El Salvador (PANSAL), Investment in 65% of the projects \$1,175,550.00 (MARN, 2003). National Plan on Climate Change, to access the Green Fund and the International Mechanism of Warsaw. |
| HONDURAS | Practices on conservation of soil and water (FAO, 2012). Management activities (rationing of drinkable water, improvement of the water supply in cities and in rural communities); Campaigns of awareness, sanctions to whoever breaks the legislation (UNAT, 2010). The National Bank of Farming Development places L1, 905.00 million for the acquisition and renewal of credits for the harvest of basic grains and other types of harvest. | Supply of food to affected families. Programs Commission for food delivery and programs of “work for food”. Support to the late harvest with technological packages. | Investments to reactivate the farming sector. In August of 2014, creation of a trust of 71 million to support the farming sector. |
| NICARAGUA | National environmental Strategy on Climate Change Action Plan 2010 – 2015, which incorporate risks adaption and management The country was elected as a member of the Committee for the establishment of a Green Fund for Latin America (Centro Humboldt, 2011). Strategies of the autonomous regions of the Caribbean. Plans against forest fires Housings respecting disasters risks reduction regulations. Educational materials. Sanitation, vectors eradication and diseases control campaigns. Adaptation to climate change of the water and sanitation sector (Government of Nicaragua, 2012) Adaptation Plan to the variability of Climate Change for the agricultural, forestall and fishery sectors in Nicaragua (Ministry of Agriculture and Forests, 2013) | Provision of food to the population affected by droughts. Recommendation to increase the consumption of iguana. Credits to mitigate the impacts of the drought on the familiar economy. | Program on Risk Reduction and Vulnerability to Flooding and Drought in Las Segovias. Program on the Basin of the River Estero Real, in force until 2015 Importations free of taxes of red frijol, rice and corn |
| GUATEMALA | Declaration of Public Calamity, which allows the centralization of the public, states and privates services, within the previsions of the decree | Food procurement from the exterior, to minimize the impact of the drought on the local Market prices | The investments to attend the victims of this years have exceeded the 23.7 million of dollars |



Proposal



The vulnerability of the Central American countries in the face of climate change has been acknowledged worldwide. The impacts of the droughts, among other extreme climate events, are and the increase in its gravity and frequency in Central America are a preamble of what is to be expected in the region due to climate change. This is why Oxfam and the Central America Vulnerable Network United for Life (Red Centroamérica Vulnerable Unida por la Vida) propose:

Planning

- **The implementation of assistance and prevention measures that go beyond the palliative measures as a unique response strategy.** Up until now, the actions taken to face climate change and droughts were fundamentally responsive and centered on the distribution of food to the victims. There is no integral strategy of risk reduction before the drought that would incorporate a preventive aspect and that would take into consideration the accumulated impacts of repetitive events.
- **It is advised that the governments and humanitarian actors analyze the market situation to design their humanitarian response activities.** If the markets function and that the adequate conditions are reunited, the humanitarian response toward the affected families could contribute to the revitalization of the local economies and to livelihood recovery.
- To design and implement social protection strategies for the grain producers dedicated to family consumption, which will be ready to be activated before new climatic impacts. Those are fundamental to mitigate the impact of the loss of harvests on the food security of the most vulnerable families.
- **Under the focus of climate and environmental justice, to channel the funds of the international cooperation and financial help of the developed countries.** The exposition of Guatemala, El Salvador, Honduras and Nicaragua to the effects of climate change is such that they cannot be overcome by the countries alone.
- **It is necessary to create institutional mechanisms to learn from the disaster. Not doing so has undermined our capacity to prepare ourselves to potential new events.** It is therefore important

to strengthen that institutionalization so that droughts (and their effects) are addressed from the perspective of risk management and reduction of disasters.

- **Orientate the policies in order to reduce deforestation**, as the forest and jungles have an influence over the severity of the impacts of a drought. We should also orientate actions to face the internal migrations caused by the droughts, especially for the most vulnerable populations that live in conditions of rural poverty.

Action

- **Declare the Dry Corridor as a strategic management area** to ensure comprehensive attention, resources and efforts optimization and to improve management disasters risks because of the drought.
- **Implement and strengthen the ancestral practices** and knowledge to adapt to climate change¹⁸
- **Strengthen the regional capacities** to evaluate and interpret the drought
- **Build effective synergies between the civil society and the government** in order to encourage the drafting of new governance adapted to crisis and impacts of the climate change.
- **It is urgent to stop the evictions of farmers and indigenous communities from their ancestral lands in favor of the corporate farming industry that produces for the exportation** and come with the use of fumigations, health issues, pollution and land dispossession. This model will only worsen the environment degradation, the loss of biodiversity, of water resources and will increase the vulnerability of the population to climate change.
- **Allocate resources to the application of the Regional Strategy for Climate Change in Central America.** Up to this day, this strategy hasn't had meaningful impacts on the vulnerable sectors.
- **The next Conference of Parties de la CMNUCC, la COP20 is an opportunity for the affected countries to raise their voice.** The governments of the region require addressing droughts as a priority issue. They have to show political will in the international negotiations for the urgent allocation of the financial resources to adapt to climate change. Without adaptation measures, the foreseen negative effects will have significant socioeconomic and environmental consequences that could prevent food security and put in jeopardy the wellbeing of vulnerable groups.

¹⁸ Centroamérica vulnerable, 2014



Consequences per country

EL SALVADOR

The country has suffered from the most severe effects of the phenomenon known as El Niño such as the tropical storm Mitch, which has proven the high vulnerability of the country to climate threats. In 2010, El Salvador was considered the country most at risk from climate change in the world by the Global Fund for Risks Reduction. Around 96% of its PIB and 95% of its population live in risks areas. According to the Inter-American Development Bank, between 1970 and 2011, the country was affected by 42 disasters, out of which 83% were hydro-meteorological events¹⁹. According to the MARN, the average temperature of the country has risen by 1.3°C in the last sixty years and a new increase of 2 to 3°C is expected in the coming decades²⁰.

The sea levels are raising an annual average of 1.3mm. A change has been detected in the average height of the waves over the last three decades: about 4.7 mm every year for medium waves and 2cm per year for high waves²¹. The rise of the sea levels would have very negative effects on the country due to the loss of space for cultivable lands, human settlements, productive and touristic infrastructure... In the next 100 years, between 10% (149.1km²) and 27.6% (400.7m²) of the national territory could be lost if the prevision of 1.1m sea elevation proves right²².

The coffee rust and more...

In the ultimate decade El Salvador has suffered more frequent and more severe climate events. In 2001, the drought that affected the country caused losses for a value of 33 millions of dollars and almost 410 thousands people were affected by food insecurity. The lack of rainfalls since 1998 to the winter 2001, in the east of the country, has caused grave damages to the subsistence

¹⁹ Cuellar et al., 2012

²⁰ http://www.ramcc.net/index.php?option=com_k2&view=item&id=516:el-salvador-presenta-estrategia-nacional-de-cambio-climático&Itemid=499

²¹ Government of El Salvador, 2013

²² Republic of El Salvador, 2000, and CEPAL, 2009

agriculture. According to the WFP, the drought mostly affected the harvests of corn, frijol, rice, sorghum and watermelon in 62 municipalities. In the most affected region, those droughts caused the loss of up to 80% of the crops, and up to 38% of the revenues of the small and medium farmers.

It is estimated that the drought that affected the country this summer is the worst in 44 years. The most affected are the oriental areas of the country, followed by the coastal region and some of the north-oriental regions. Mid-September, the Ministry of Agriculture counted 103,589 producers affected in 105 municipalities, divided in 12 departments (4 million of quintals of corn and 45 thousands quintals of frijol were lost at the national level). The losses are estimated to amount to 70.1 millions of dollars (30% of the corn annual production and 90% of the frijole annual production). The biggest losses were registered in the east of the country: Usulután, San Miguel, Morazán, and La Unión²³.



The coffee rust has also left 100,000 farmers depending directly on the coffee production, without income this year²⁴.

Along with the anterior, and under the influence of climate change, it is expected that the production of basic grains will diminish. The prevision speaks about a 60% diminution in the production of sugar cane. The pastureland and livestock will also be affected (80%) as well as the fishing industry (16 to 23% of the shrimp for example). In the coastal

region, the reduction in the agricultural production because of the droughts will result in losses in the harvest of corn that could reach a 3.1million of dollars for the year 2015.

²³ FAO, 2014 and Oxfam, 2014

²⁴ Money News, 11/09/2014

HONDURAS

Honduras suffers from the lack of a consolidated fund for emergency relief in case of drought, which also makes it difficult to get numbers and costs, and to respond to disasters. This year, it is estimated that around **1 million people** (186,311 families) **were affected by the drought** (the worst in over 10 years) in 165 municipalities of the country. The country called for international assistance on September 8, 2014, after decreeing a State of Emergency.

In Honduras, 19% of the territory is affected by water shortage. The projections for 2090 indicate that important changes are going to take place in the months of July and August where the rainfall will only represent a 30 to 40% of the actual rainfalls. Meanwhile, the temperature will rise by more than 4°C in most of the country. The threats related to climate change are mostly felt in the agriculture, the grounds and food security.

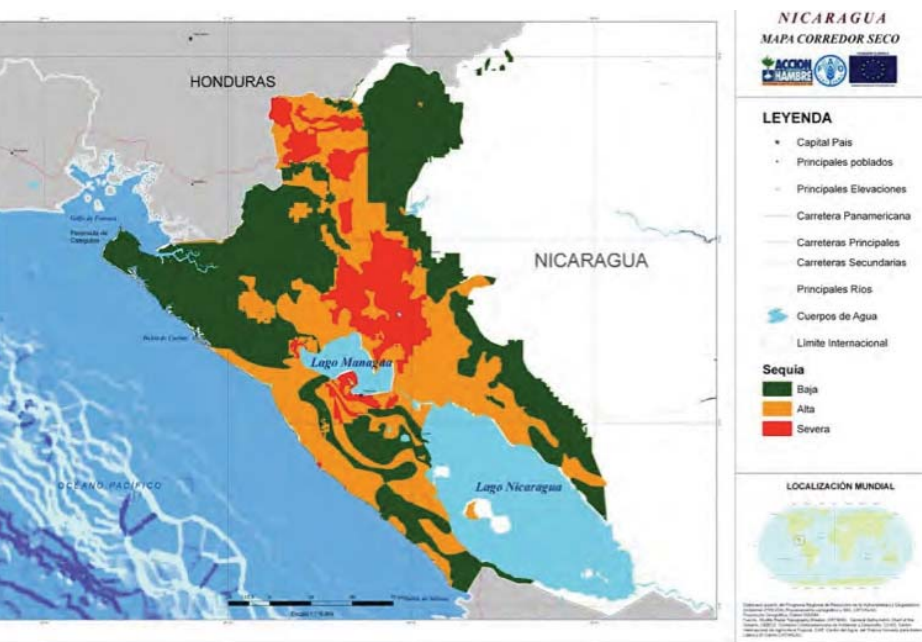
Historic losses



Generated using data from the inventory of historic disasters

NICARAGUA

The departments most exposed to droughts in North-Center region are: Nueva Segovia (Santa María, Ocotal, Dipilto, Macuelizo, Mosonte y San Fernando); Madriz (San Lucas, Somoto, Yalagüina, Palacagüina, Totogalpa y Telpaneca); Estelí (Condega, La Trinidad, Pueblo Nuevo y Estelí (Parte central); Jinitega (La Concordia) and Matagalpa (San Isidro, Sébaco, Ciudad Darío y Terrabona). The dry regions affected by droughts are each year more extensive.



INETER, 2001

The drought that is currently affecting the country is considered one of the worst in the last 30 years in Nicaragua. Of the 156 municipalities of the country, 112 have reported losses and damages in the crops. The most affected departments are Nueva Segovia, Madriz, and Estelí and report a loss of 75% of their corn harvest²⁵. OCHA estimate that around 100,000 families are highly affected. **Nonetheless, the government still hasn't declared the state of emergency and there is no clear information in the country as to which areas and how many people are affected.**

The consequences of the drought are mostly suffered by the rural population and by the poorest and most vulnerable groups²⁶, and principally in the Pacific and North regions, impacting the agricultural lands which are the base of the national economy (Gutierrez, 1994). The impacts of climate change have to be added to the advance of agricultural frontiers, the overuse of the land and the loss of forestall areas.

²⁵ Oxfam, 2014

²⁶ On the cost, the rise of temperature is also affecting the fishing sector.



The drought is a recurrent phenomenon that has intensified since the fifties, and until the nineties, and that occurred in 1991, 1994, 1997, 2000 and 2001.

Under the effects of climate change, the municipalities in the north region, actually considered as “dry areas”, would be the most affected and would become dryer by the year 2100. A significant rise of the average temperature (3 to 4°C) is also expected by 2071 – 2099, while the precipitations will decrease by 50 to 60%.

Even though Nicaragua has made important progresses regarding planning and attention tools, such as the National Strategy for Environment and Climate Change or the Action Plan for 2010 – 2015, the post-war situation, that up to recently prevailed in Nicaragua, have limited the development of an environment policy, the attention to climate change and the generation of knowledge that are requires to adapt to the effects of climate change.

GUATEMALA

More than 87.5% of the territory of the Republic of Guatemala is susceptible to droughts²⁷, 19 departments (86% of the total) present areas with high and medium susceptibility, in fact, the departments with the highest proportion of land (%) that present high and medium susceptibility to droughts are: Zacapa (76.7%), Petén (72.3%), Retalhuleu (71.2%), Baja Verapaz (66.5%), Jutiapa (65.6%) and Chiquimula (61.8%). The departments of Petén, Izabal, Escuintla, Jutiapa, Zacapa, Baja Verapaz y Chiquimula stand out because of their size²⁸. It is important to highlight the alimentary vulnerability that is always present in this region of Guatemala, as 70% of its population suffers from chronic malnutrition, while the national average is of 49.8%²⁹, which makes Guatemala the fifth country with the highest malnutrition rate at global level.

²⁷ MAGA, 2001

²⁸ PROANDYS, 2001

²⁹ MSPAS, CDC, et al, 2010. Encuesta Nacional de Salud Materno Infantil 2008/09

The longest periods of drought have occurred in the dry corridor, located in the oriental region of the country. It cuts through the departments of Izabal, Zacapa, Baja Verapaz, El Progreso, Jalapa, Chiquimula, Jutiapa and Santa Rosa. These lands are generally dry forcing the local settlers to have a diet based on corn and beans, which yield has diminished during the last decade, which is associated with multiple climate events.

Similar to other countries, droughts are a phenomenon that happens frequently. In July of 2012, it caused agricultural damages in 919 communities, in 18 of the 22 departments of the country³⁰,



severe damages were registered in 178 communities of Baja Verapaz, El Progreso, Guatemala, Sololá, Totonicapán y Zacapa; as well as important damages in 427 communities located in these departments and in the departments of Chimaltenango, Chiquimula, Huehuetenango, Jalapa, Jutiapa, Quiché, San Marcos, Santa Rosa and Suchitepéquez. In 2013, a new water deficit affected the production of corn and frijol, especially for families that produce for their own consumption, with losses that amounted up to 70%³¹; of the production. It is also important to take in consideration

³⁰ MAGA, 2012

³¹ Oxfam, 2014. Evaluación Rápida: Impacto de la pérdida de cultivos de granos básicos en la seguridad alimentaria nutricional de pequeños productores y productoras en el corredor seco de Guatemala. Disponible en <http://www.albedrio.org/htm/documentos/OXFAM-EvaluacionRapidaCorredorSecoGuatemala2013.pdf>

the fact that those families of the Dry Corridor have been affected by important losses in their production for three years in a row, which adds to the diminution of employment in rural areas due to the impact of the rust in the coffee production. This situation has considerably altered the capacity of these communities to face the ongoing crisis on their own.

In the dry corridor, the lack of basic grain reserves has become chronic, which raises the risk of malnutrition. In this year, 250,000 families were affected by the longest drought that the country has ever seen; in fact the investment dedicated to help the victims of the drought surpassed the sum of 23.7 million dollars.

The national weather service labelled the deficit as the most severe in the last 40 years; the hydrological deficit during the first harvest affected 16 out of the 22 departments of Guatemala³². The analysis of the Food and Nutritional Security Secretariat (SESAN for its initials in Spanish) estimated losses in the production of corn around the 80%, and 70% in the production of beans. The SESAN estimated that 1,375,518 persons (around 291 thousand families) were highly susceptible to food insecurity and were in need of help. Half million of boys and girls are at risk of food and nutritional insecurity³³.

The government of Guatemala declared an emergency state in the 16 most affected departments, and requested international help the last week of September. Guatemala is the only Central American country who has officially qualified the emergency as such. To date there has been reports of a substantial decrease (34% for corn and 54% for beans) in the alimentary reserves of affected households in comparison to an average “normal” year, thus estimating the current reserves of corn to 2.9 months and the current reserves of beans to 2.4 months. The study identifies a higher drought impact in the homes lead by women, who suffer an unequal access to land and other life means³⁴.

³² Oxfam, 2014

³³ Oxfam, 2014

³⁴ Analysis of Oxfam with the collaboration of the “Fondo de Tierras”



In order to fight the impacts of the drought, the government of Guatemala barely had a bit more than 30% (180 million of quetzales) of the consumed budget of the last alimentary crisis caused by droughts, which worsen this year situation. The 500 million that the government pretended to use to respond to emergencies proven to be insufficient because the effects of the drought extended over 9 months instead of originally forecasted 6 by the authorities, which places the new estimated figure above the one invested in 1998 for hurricane Mitch, which left 748 millions of dollars in damages according to CEPAL³⁵.

During the last years, Guatemala has suffered the impact of the climatic variability, and the periods of drought have stood out and affected the entire country but mostly the dry corridor, as well as the impact of hurricane Stan (2005), the tropical storm Agatha (2010), and the tropical depression 12E (2011). All of these events have caused numerous damages and losses, and have affected considerably the agricultural production³⁶.

³⁵ <http://lahora.qt/inversion-por-sequia-seria-superior-gasto-por-huracan-mitch/>

³⁶ Polanco, 2013.



References

Centroamérica vulnerable, unida por la vida. 2014. Declaración del V Encuentro regional: Centroamérica vulnerable, Unida por la vida. Managua Nicaragua, 24 y 25 de septiembre del 2014.

Centro Humboldt, 2011a. Mapeo de Riesgos, Procesos, políticas públicas y actores asociado a cambio climático en Nicaragua. Centro Humboldt, Christian AID. Managua, Nicaragua. (www.humboldt.org.ni).

Centro Humboldt, 2011b. Balance nacional de la gestion ambiental en Nicaragua. Centro Humboldt, Managua.

CEPAL, 2009. Cambio Climático y desarrollo en América Latina y el Caribe. Reseña 2009. Comisión Económica para América Latina y el Caribe, GTZ. Santiago de Chile.

CEPAL, 2010. La economía del cambio climático en América Latina y el Caribe. Síntesis 2010. Comisión Económica para América Latina y el Caribe. Santiago de Chile.

CEPAL, 2013. Impactos Potenciales del Cambio Climático sobre los Granos Básicos en Centroamérica. Comisión Económica para América Latina y el Caribe, Consejo Agropecuario Centroamericano del Sistema de Integración Centroamericana SICA. México.

Cuéllar, N., F Luna, O Díaz y S. Kendel. 2012. *Informe sobre el Estado y Calidad de las Políticas Públicas sobre Cambio Climático y Desarrollo en El Salvador*. Plataforma Climática Latinoamericana, Programa Salvadoreño de Investigación sobre Desarrollo y medio Ambiente, Oak Foundation, Fundación AVINA, Fundación Futuro Latinoamericano. San Salvador.

Cuéllar, N., F Luna, O Díaz y S. Kendel. 2013. Cambio Climático y Desarrollo en El Salvador. Respuestas de Políticas y Desafíos para la Gestión Territorial. Programa Salvadoreño de Investigación sobre Desarrollo y medio Ambiente. San Salvador.

FAO, 2012. Impacto de la sequía en la producción de granos básicos en el Corredor Seco. Ciclo primavera/ agosto 2012.

FUNDE. 2003. Política y Plan de Acción de Convivencia con la Sequía en El Salvador. Documento de Consultoría de FUNDE para FAO El Salvador. Diciembre de 2003.

Gobierno de El Salvador. 2013. Segunda Comunicación Nacional sobre Cambio Climático. Ministerio de Medio Ambiente y Recursos Naturales, GEF, Programa de las Naciones Unidas para el Desarrollo. San Salvador.

Gobierno de Nicaragua, 2010. Estrategia Nacional Ambiental y del Cambio Climático. Plan de Acción 2010-2015. Gobierno de Reconciliación y Unidad Nacional. Managua.

Gobierno de Nicaragua, 2012. Proyecto de Adaptación Al Cambio Climático en el Sector de Agua y Saneamiento, Nicaragua Marco de Gestión Ambiental y Social Versión Final.

Gobierno de Reconciliación y Unidad Nacional. Managua.

INETER (Instituto nicaragüense de estudios territoriales). 2001. Amenazas naturales de Nicaragua. Amenazas de sequía meteorológica. 1a ed. Managua, Nicaragua. 310 p.

- INTA (Instituto Nicaragüense de Tecnología agropecuaria), 2000. Diagnóstico agrosocioeconómico de región norte Las Segovias. Dirección de planificación. Estelí, NI, INTA. 210 p.
- IICA Instituto Interamericano de Cooperación para la Agricultura (2010). Informe anual 2009: la contribución del IICA al desarrollo de la agricultura y las comunidades rurales en El Salvador / IICA-El Salvador: IICA
- Kreft, S. and D. Eckstein. 2013. Global Climate Risk Index 2014. Who Suffers Most from Extreme Weather Events?. Weather-Related Loss Events in 2012 and 1993 to 2012. Germanwatch e.V. Bonn.
- Landa, R. 2011. Amenazas del clima, ciudades vulnerables. Revista México Social no. 12. Julio 2011. México.
- Landa, R., B. Ávila y M. Hernández. 2010. Cambio climático y desarrollo sustentable para América Latina y el Caribe. Conocer para comunicar. British Council, PNUD México, Cátedra UNESCO-IMTA, FLACSO México. México 140 p.p.
- Landa, R. V. Magaña y C. Neri. 2008. Agua y clima: elementos para la adaptación al cambio climático. SEMARNAT, CCA-UNAM. México.
- Landa, R., D. Siller y V. Magaña. 2011. Bases para la gobernanza hídrica en condiciones de cambio climático, en ciudades del sureste de México. Programa de las Naciones Unidas para los Asentamientos Humanos, Programa Conjunto de Agua y Saneamiento del Sistema de Naciones Unidas en México. México.
- Magaña, V. 2004. Los impactos de “El Niño” en México. Centro de Ciencias de la Atmósfera, Universidad Nacional Autónoma de México. CCA-UNAM, Dirección General de Protección Civil, Secretaría de Gobernación. México.
- Magaña, V. 2005. Elaboración de escenarios climatológicos para la región de México, Centroamérica y Cuba. Informe de avance. Proyecto “Fomento de capacidades para la etapa II de adaptación al cambio climático en Centroamérica, México y Cuba”. Centro de Ciencias de la Atmósfera, Universidad Nacional Autónoma de México, CCA-UNAM, Instituto Nacional de Ecología, Secretaría de Medio Ambiente y Recursos Naturales, INE-Semarnat, Programa de las Naciones Unidas para el Desarrollo PNUD-GEF. México.
- MAG, 2012. Estrategia Ambiental de Adaptación y Mitigación al Cambio Climático del Sector Agropecuario, Forestal y Acuícola. Ministerio de Agricultura y Ganadería, Gobierno de El Salvador. San Salvador.
- MAGFOR (Ministerio Agropecuario y Forestal), 2000. Estrategias para el manejo de sequía. Informe de pérdidas por sequía en la época de primera del año 1999. Dirección de Estadísticas. Managua, NI, MAGFOR .32 p
- MAGFOR (Ministerio Agropecuario y Forestal). 2001. Base de datos estadística y cartográfica de las Segovias. Managua, NI. Esc. 1: 50 000.1 disco compacto, 8 mm
- Ministerio Agropecuario y Forestal, 2013. Plan de Adaptación a la Variabilidad y el Cambio Climático en el Sector Agropecuario, Forestal y Pesca en Nicaragua. Gobierno de Reconciliación y Unidad Nacional. Managua, Nicaragua.
- Ministerio de medio ambiente y recursos naturales El Salvador. 2003. Programa de acción nacional de lucha contra la desertificación y sequía. San Salvador, El Salvador, Enero 2003.
- Organización de Naciones Unidas, 2004, Vivir con el riesgo, informe Mundial sobre iniciativas para la reducción de desastres, 139 pp.
- Oxfam, 2014. Informe de resultados PROYECTO CRECE Políticas Nacionales de Adaptación al Cambio Climático.

Situación Actual y Análisis de Oportunidades de Campaña en Países Seleccionados de América Latina y el Caribe. (Borrador en revisión).

Oxfam Situation Report, 10 Octubre 2014. Sequia Centro America. Numero: 1. Preparado por: Pierluigi Sinibaldi (Assessor EFS-VL), Ivan Aguilar (CH Guatemala), Carlos Rosales (CH Honduras), Mercedes Garcia (CH El Salvador), Giulio Fuganti (CH Nicaragua).

PNUD (Programa de las Naciones Unidas para el Desarrollo). 2000. El desarrollo humano en Nicaragua 2000. Equidad para superar la vulnerabilidad. 1ª. Ed. Managua 196 p.

PNUD, 2012. Enfoque territorial contra el cambio climático, medidas de adaptación y reducción de vulnerabilidad en la región de Las Segovias-Nicaragua. Proyecto. Programa de las Naciones Unidas para el Desarrollo, Agencia Suiza de Cooperación en América Central COSUDE. Managua, Nicaragua.

Polanco, M. 2013. Guatemala: Impactos económicos y humanos del cambio climático. Boletín "Economía al día". No 2

PRISMA, 2014. Vinculando adaptación y mitigación del cambio climático: Implicaciones para Centroamérica. Policy Brief. Programa Salvadoreño de Investigación sobre Desarrollo y medio Ambiente. San Salvador.

República de El Salvador, 2000. Resumen Ejecutivo Primera Comunicación Nacional sobre Cambio Climático República de El Salvador. Ministerio de Medio Ambiente y Recursos Naturales. San Salvador.

República de Nicaragua, 2001. Primera Comunicación Nacional ante la Convención Marco de las Naciones Unidas sobre Cambio Climático. República de Nicaragua. Managua

Ryan, D. 2012. Informe sobre el Estado y Calidad de las Políticas Públicas sobre Cambio Climático y Desarrollo en América Latina Sector Agropecuario y Forestal. Plataforma Climática Latinoamericana, Oak Foundation, Fundación AVINA, Fundación Futuro Latinoamericano como Secretaría Ejecutiva de PCL.

UNAT (Unidad de apoyo técnico de la secretaria de estado del despacho presidencial). 2010. EL problema de la sequía en Honduras en 2010. Enero 2010.

United Nations International Strategy for Disaster Reduction (UNISDR), 2009a, Terminología sobre Reducción del Riesgo de Desastres, Estrategia Internacional para la Reducción de Desastres de las Naciones Unidas. Ginebra, Suiza. 38 pp.

United Nations International Strategy for Disaster Reduction (UNISDR), 2009b, Informe de evaluación global sobre la reducción del riesgo de desastres 2009, Riesgo y pobreza en un clima cambiante, Invertir hoy para un mañana más seguro , 207 pp.

United Nations International Strategy for Disaster Reduction (UNISDR) and Unión Interparlamentaria, 2010, Reducción del Riesgo de Desastres: Un Instrumento para alcanzar los Objetivos de Desarrollo del Milenio, Kit de Cabildeo para Parlamentarios. 53 pp.

United Nations International Strategy for Disaster Reduction (UNISDR), 2012, Reducing Vulnerability and Exposure to Disasters. 164 pp.



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