

Food Security situation after Tropical Depression 12 E in Central America

Appropriate natural resources management
can mitigate impact of extreme weather related events



Food Security Working Group – RedLac

(FAO, CARE, WVI and WFP) ¹

Panama – 15 November 2011

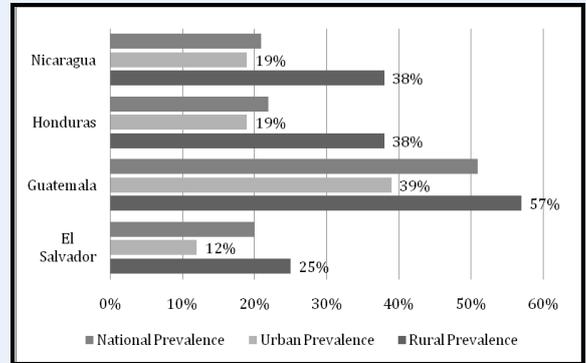
¹ Sources of information: Government, Donors, NGOs (ACH, WVI, CARE), UN (OCHA, WFP, FAO). **It should be noted that assessments are ongoing, therefore information will be changing.** An updated joint FAO-WFP report is expected to be available by mid December 2011.

Context

Central America is the **second most vulnerable region** in the world² for climate risks. Due to the high vulnerability of the smallholders, subsistence farmers, daily laborers (agricultural and non-agricultural), vulnerable households depending from instable livelihoods and the environment, the region has to consider **risk reduction as a priority; it needs to be** thoroughly mainstreamed in development efforts and budget planning.

Although Central American countries are in the middle income group, the region presents disparity in terms of wealth distribution. More than **70 percent** of the rural population lives below the poverty level. There is a high prevalence of chronic undernutrition, which reaches up to 57 percent in Guatemala, often with a higher prevalence at the sub-national level³.

Prevalence of chronic undernutrition among children under 5 is significantly worse in rural and indigenous areas where rates are often more than double those in urban areas. Chronic undernutrition is also very high in these areas.



Prevalence of chronic under nutrition in children between 6 to 59 months in rural and urban areas by country (2009 World Bank Report)

Between 10 - 20 October 2011, El Salvador, Guatemala, Honduras and Nicaragua were under the destructive influence of Tropical Depression 12E (TD 12E) and the ensuing atmospheric instability led to several days of extremely intensive rainfall, causing great damage to productive sectors in these countries. Initial estimates from the four governments indicate that overall up to **800,000 people have been affected** by TD 12E and at least 90 deaths were reported. From this population, more than 30,000 persons were still living in temporary shelters at the beginning of November.

Between **200 and 300 thousand farming families** are seeing their harvest decreased by 30 to up to 100 percent after their crops were flooded or washed away and the soil was completely saturated by water during several weeks. The total value for the subsistence production⁴ losses has been initially estimated at least US\$ 300 to 400 million for the region in terms of staple crops.

Beyond these numbers and statistics, decision makers have to keep in mind the **individual family catastrophe** for those who have lost their main livelihoods in just a few days.

Households whose main livelihoods are subsistence farming and have lost part or all of their crops will not be able to recuperate their basic productive capacity until the next harvest. While immediate assistance has been quickly organized to shelter displaced families, bring food assistance and health services, a serious concern remains for the rehabilitation of basic livelihoods for thousands of subsistence farmer households and vulnerable rural households that in general depend on instable livelihoods will be facing a **prolonged hunger gap period until August/September 2012**.

² According to the last report from the Global Climate Risk Index 2011

³ World Bank 2007, data from Demographic and Health Survey and Centre for Disease Control surveys in El Salvador, Guatemala, Honduras and Nicaragua).

⁴ Maize, and Beans only



Nicaragua: The crops are green, but they will not yield any Sorghum

Years of development efforts may be lost if no adequate food security and livelihood support is provided in the coming months to the affected vulnerable rural households to ensure their basic nutrition, recuperate livelihoods and revitalize the agriculture sector.

Response strategy

While more in depth evaluations have been initiated to assess the impact of the current disaster on rural livelihoods and vulnerable households in the affected areas, preliminary discussions with government authorities and civil society suggest developing a strategy to be adapted in each country, for the short and medium term, as follows:

Relief: Immediate Response

- In support of Government requests, the international community immediately responded through general food distribution (GFD) in order to save lives, avoid deterioration of the nutritional status⁵ and prevent the use of negative coping strategies by the most vulnerable populations.

Short Term: Access to Food

- Early recovery activities to increase household income and rehabilitate community infrastructure and agricultural productive capacities Food aid and cash transfer that could be conditioned for productive asset rehabilitation;
- Recapitalize affected small farmers with essential agriculture inputs such as seeds, poultry, tools, livestock that can also be used for rehabilitation works on community infrastructures;
- Train farmers to rehabilitate agriculture infrastructure in order to ensure food and nutritional security for the next cropping season; and,
- Facilitate people's awareness and adoption of preparedness activities at the community level.

Medium Term: Preparing Resilient Development

As both drought and floods may occur in the same areas, the objective is to find and promote an approach which can assist farmers for both risks: **scarcity and excess of water**.

Actions include:

- ✓ *Early Warning & Food Security Monitoring:*

⁵ For affected population (young children and pregnant and lactating women), in particular.

Build a food security and vulnerability monitoring and early warning mechanisms, to strengthen the capacity of coordination committees to monitor and understand food and nutrition security issues, preparedness and identify appropriate response.

✓ *Technical support :*

In order to limit dependency on external support in emergency material supplies and to enhance people's knowledge and skills, increasing self-resilience and laying foundation for self-recovery from food insecurity, the following approaches should be considered⁶ :

- i. **Agro Forestry Systems** combined with mulching, improves water infiltration, retention to respectively better absorb excessive rainfalls and increase soil humidity during dry spells.
- ii. **Watershed management, micro irrigation** and good drainage schemes also very effective when applied properly to secure production when facing weather instability/challenges.
- iii. **Vegetable back yard** (Patio Hogar) can generate and secure complementary food throughout the year and associated some incomes
- iv. Seed & food **bank/reserve** mitigate food availability fluctuations for household's needs and market opportunities, associated with quality seed production at farmer group level.

✓ *Rural economy support⁷ :*

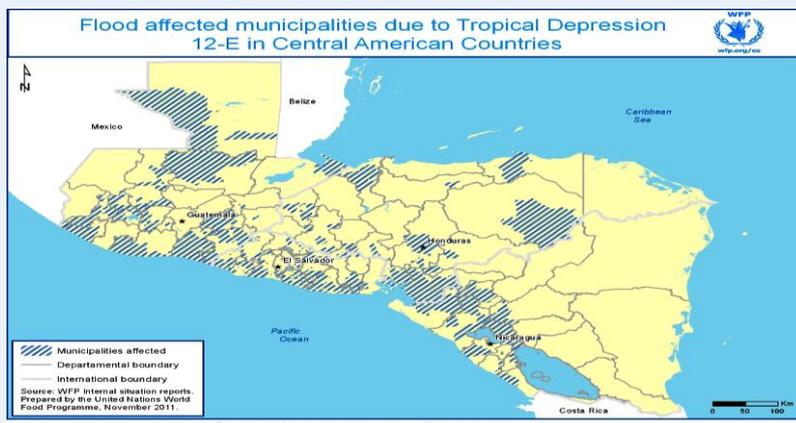
Beside knowledge and capacity building which can be achieved through climate and *environment smart agriculture techniques*, access to markets, financial services and agriculture insurance opportunities are also key elements for disaster preparedness:

- i. Provide technical capacity to link smallholder farmers to **markets** and enable them to contribute to the availability of local food commodities for food emergencies and livelihood early recovery.
- ii. Maximize local procurement as a tool to promote food production and develop partnerships with local & national entities to promote national procurement policies that stimulate smallholder agriculture and market development.
- iii. Access to **rural finance** to assist farmers to build resilience by improving application of best practices, increasing production and developing a culture of savings, investment and responsibility.
- iv. The **agriculture insurance** option is receiving more attention to contribute and adequately complement DRR and CCA measures. Two non exclusive options may be considered: One through the private financial sector, which may require subsidy support from the Government. And the second option is to work through community and farmer groups in developing their own "mutuality" system which could be considered as an intermediate step to more formal agriculture insurance schemes.

⁶ SAF and irrigation have been also identified as priority by regional institutions for climate change adaptation in Central America

⁷ For Emergency Preparedness & Response

In the framework of the International **Year of the Cooperatives** 2012, the RedLac Food Security group would encourage any initiative of producer cooperatives which offer smallholders and subsistence farmers with market opportunities, and provide them with services such as better training in natural resource management, and better access to information, technologies, innovations and extension services to be applied for disaster risk reduction.

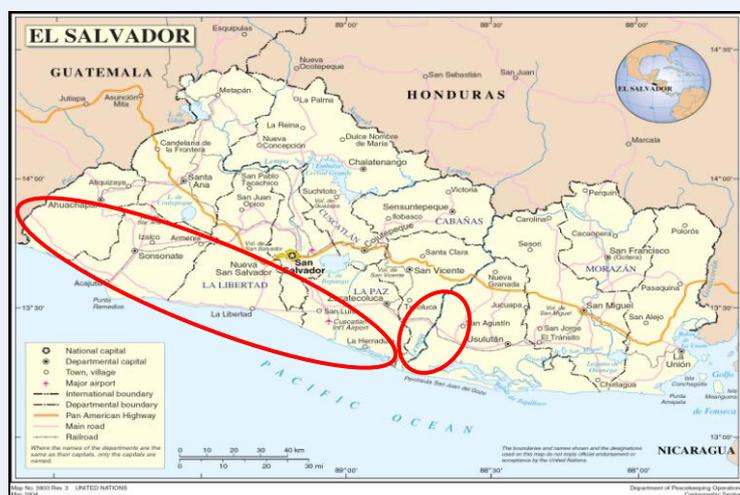


El Salvador

El Salvador is **the most affected country** of the region, both at local and national levels. Initial indications are that around 265,000 small holders, in 188 municipalities, have lost part of their food crops destroyed and will face serious livelihoods challenges in the coming months. The table below summarizes the **damages** caused for agriculture crops⁸ at national level, which is estimated at at-least **US\$ 200 million** and between **30 to 100 percent of harvest lost**. A recent report prepared by CEPAL-Government of El Salvador, estimates total losses from TD 12E (infrastructure, agriculture environment and productive sector) at about **U\$ 840 million**.

El Salvador is the only country which declared National Emergency and also requested international assistance. The most affected departments/provinces are Ahuachapan, Sonsonate, San Miguel, La Libertad and Usulután which in addition to heavy rains have been flooded by the opening of the dam doors that **destroyed more than 90 percent** of the area in Bajo Lempa.

The main risks are increased food insecurity and undernutrition of the most vulnerable and impoverishment of affected vulnerable households. Local authorities and civil society expressed urgent needs for productive assets (seeds, tools, silos) but also to **improve access to rural finance** services and sensitization on risk management at institutional and community level for the agriculture sector.



Els Salvador	
Areas severely affected	Pacific coast
Nb of farming families affected	265,000 HH
Cost of losses	USD 200 to 300,000,000
Percentage of losses in affected	30 to 100 %
Main recommendations	<ul style="list-style-type: none"> . Rescue harvest with post harvest handling . Irrigation for food and seed production . Agriculture inputs provision . Cash transfer activities for agricultre rehabilitation . Incineration of dead animals . Promotion of food and seed reserve/bank . Back yard production . Rehabilitation of irrigation infrastructure

⁸ Not only Maize and Beans

Honduras

The country has been affected by **two weather related events** in the course of October 2011. While Hurricane Rina caused some damages in the northern coast, the TD 12 E destroyed the main source of livelihoods of 44,000 subsistence farming families in the southern region. From 10 to 20 October, 400 to 700 mm (average precipitation for the same month being 260 mm) was received in the provinces of Valle and Choluteca. The climate of this region oscillates between long dry spells and a shorter rainy season, the dry forest ecosystem of the pacific coast of Meso-America from Michoacan, Mexico to Guanacaste, Costa Rica with a climate dominated by the El Niño – La Niña climate pattern which also produces long dry spells such as in 2009 and 2010.

While at national level, the losses are not significant for any of the main crops (maize, beans, sorghum), the 6 most affected provinces⁹ record an **average loss of around 30 percent for maize, 20 percent for sorghum and 70 percent for beans.**



Honduras	
Areas severely affected	South and Occidental
Nb of farming families affected	60,000 HH
Cost of losses	USD 20 to 40,000,000
Percentage of losses in affected	30 to 70%
Main recommendations	<ul style="list-style-type: none"> . Promotion of food/seed reserve . Food Aid . Use of irrigation scheme opportunities . Production of seed for national and regional markets . Food and cash for work . Back yard production

Preliminary information from a livelihood study (WFP, FAO, SEPLAN and various NGOs) indicates that around **90,000 households** making their life from subsistence agriculture with around one Ha of *hilly lands* are currently in a **food insecure** situations, while more than 44,000 of them will face serious challenges in producing sufficient food for their family members as well as recapitalize themselves for the next planting season in April/May 2012. As anticipated, the most affected households are the poorest. In these rural areas, more than 75 percent of the population is poor, and 45 percent are considered as extremely poor; this represents a huge challenge in terms of recovery, food security and poverty reduction. In addition to the damages to crop fields, the agro industrial (sugar, shrimps, vegetable) sector¹⁰ of these regions has also been impacted with risks of losses of several thousands of daily jobs inplanting and processing which severely affects household incomes and food security.

A recent livelihoods assessment did confirm the importance of buffer role of the SAF¹¹ for mitigating impacts of excessive rains, showing that only 10 percent of the crops fields under tree coverage were damaged compared to 60 percent while not covered through agro forestry system. In general, the main impact of the TD 12 E will be felt by the poorest stratus of the population as through reduced food access and further impoverishment.

⁹ Choluteca, El Paraiso, Francisco Morazan, Intibuca, La Paz and Valle.

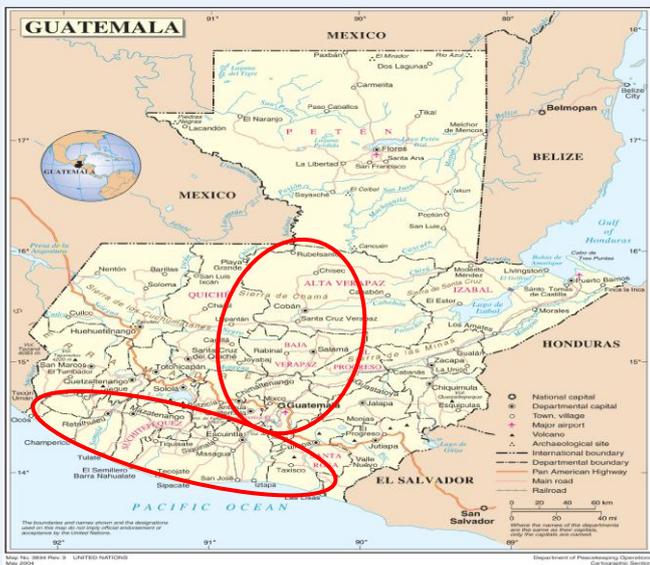
¹⁰ Some of these sectors employs around 40 % of women

¹¹ Sistema Agro Forestal

Guatemala

In addition to massive losses recorded along the southern coast of Guatemala, the TD 12 E also damaged thousands of hectares in the Altiplano Central, the Department of Guatemala and the southern part of Peten. Around 20,000 hectares dedicated to agriculture were damaged **affecting around 40,000 farming households** throughout the country, which add up to at least US\$ 20 million of staple crop losses.

Maize and beans are the main crops that have been destroyed, particularly affecting smallholders and subsistence farmers. In the southern part of the country, from Retalhuleu to Jutiapa, it is estimated that more than **70 to 80 percent of the maize and beans production was destroyed**. In the departments of Escuintla and Santa Rosa, losses in beans production surpass 80 percent. In that same area, due to the floods, some 40 percent of livestock (mainly poultry) was lost.



Guatemala	
Areas severely affected	Pacific coast, Central Altiplano, souther Peten
Nb of farming families affected	40,000 HH
Cost of losses	USD 20 to 40,000,000
Percentage of losses in affected areas	35 to 80 %
Main recommendations	<ul style="list-style-type: none"> . Disaster risk management capacity building . Agriculture inputs provision . Cash transfer for agriculture rehabilitation . Promote good practices for soil and water conservation . Animal health control

Adding to the important losses in production, there has been large scale damage to communications and productive infrastructure. This made it more difficult for rural families to access services and aid. There are other relevant concerns related not only to the availability but also to the quality of water which represents a likely source of health problems that may impact on nutritional status.

Some increases in food prices have been observed during the last weeks. It may be expected to have effects in the region and it menaces the food security situation of poor and vulnerable households who have no alternative sources of income to cover their basic needs. According to MFEWS¹² and USAID¹³ report on Food Security (25 Oct 2011), most of the country will remain under stress of food insecurity (phase 2 IPC¹⁴) until the end of the year. Some areas, especially in the *altiplano* and the southern region of Guatemala, are in a critical situation of food insecurity (phase 3 IPC) with limited opportunities for financial recapitalization to procure agriculture inputs for the next season.

Projections up to March 2012 indicate that the food insecure situation in Guatemala will remain significant, with some hot spots (phase 3 IPC) spreading to the western side of the country. This situation may last until the next main harvest in August/September 2012.

¹² Mesoamerican Famine Early Warning System

¹³ United States Agency for International Development

¹⁴ Integrated food security Phase Classification

Nicaragua

In Nicaragua, the damages are localized on the north western side of the country and specifically in the departments/provinces of Chinandega, Estelí, Leon and Managua (where 78 percent of the beans crops have been damaged) affecting around **25,000 farming families**, including sustenance farming households and vulnerable households. In these specific areas, the losses for maize have been estimated at more than 60 percent and more than 30 percent for beans. Some catastrophic cases of losses of 100 percent of rice and sorghum have been recorded in Achuapa (Leon) and San Juan de Limay (Estelí).



Nicaragua	
Areas severely affected	Pacific coast
Nb of farming families affected	25,000 HH
Cost of losses	USD 10,000,000
Percentage of losses in affected areas	30 to 70 %
Main recommendations	<ul style="list-style-type: none"> . Food aid to 55,000 people . Assistance in drinkable water . Nutritional surveillance . Take advantage of the 3rd agricultural season . Seed multiplication . Promotion of savings and loans schemes . Promotion of soil and water conservation

The production losses and loss of income will have a negative impact on the food access of vulnerable households in the affected communities during the next months. While the first agriculture season (*primera*) had been quite successful, permitting storage of excess production until the harvest of this season (*postrera*), most of the stocks have also been affected by an excessive level of humidity in communal and family silos/storage facilities.

Nicaragua has a third harvest season (*apante*) in some regions of the country, which can allow some to recover food production and related income generation activities. This *apante* season is also an opportunity to produce seeds for the first season of 2012 using micro irrigation schemes and humid zones such as lowlands. Affected farmers in areas of the country where the *apante* harvest is not available will most likely have to wait until August/September 2012 for the harvest of the first (*primera*) agriculture season, requiring assistance until then.