



Damage caused by coffee rust in Tamanique, La Libertad. © Oxfam. Photo: Tania Moreno

## THE IMPACT OF COFFEE RUST

An assessment of the livelihoods and food security of families working in El Salvador's coffee sector

Since 2013, an outbreak of coffee rust in many of El Salvador's coffee plantations has affected the food security and livelihoods of families dependent on day labour. With the support of partners and donors, Oxfam carried out an assessment to measure the impact of the outbreak in areas of the country where it is providing food assistance. This briefing describes the results of the assessment and recommends short- and medium-term actions to improve food security and help communities adapt to climate change.



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## INTRODUCTION

Many communities in El Salvador have low resilience (that is, they have very limited capacity to tackle and recover from the effects of disasters). Because of climate change, some communities have to deal with disastrous events every year or two years.

The frequency of these disasters increases the poverty cycle, making people more vulnerable to extreme or large-scale events (disasters reduce the already limited resources of vulnerable families, including their seeds, animals, belongings and livelihoods, which in turn forces them to increase their debts and entrenches the poverty cycle).

Oxfam's humanitarian imperative acknowledges its obligation to provide humanitarian assistance to all people in need, where and when they need it, without discrimination. Through its humanitarian interventions, Oxfam aims to alleviate human suffering among those who are less well prepared to deal with the consequences of disasters and climate change. One of the organization's guiding principles is to provide humanitarian assistance in close coordination with its partners. Within this framework, Oxfam prioritizes efforts to strengthen the capacity of civil society organizations for prevention, preparation and humanitarian response, through the Emergency Food Security and Vulnerable Livelihoods (EFSVL) team.

This study was carried out with funding and guidance from the organizations that comprised the assessment team. Oxfam acknowledges and appreciates the participation and work of all those involved in this effort, as well as their participation in implementing humanitarian assistance for families whose livelihoods and food security have been affected by the impact of coffee rust in El Salvador.

## EXECUTIVE SUMMARY

El Salvador has experienced a number of climate-related events in recent years that have slowed down or paralysed its economy. According to the Economic Commission for Latin America and the Caribbean (CEPAL), in 2009, tropical storm Ida killed 198 people and affected another 122,000, costing an estimated \$314.8m in damage and economic losses (equivalent to 1.44 percent of gross domestic product (GDP)) as well as \$27.5m in damage to basic grain harvests and coffee growing.

In 2010, tropical storm Agatha reportedly killed 12 people and affected another 120,000, costing \$112.1m in damage and losses (0.5 percent of GDP) and \$11.4m in damage to basic grains and other crops. In 2011, tropical depression 12-E left 34 people dead and affected another 500,000, causing an estimated \$902.4m in damage and losses (4 percent of GDP) plus \$105.3m in damage to basic grains and other crops.<sup>1</sup> In July 2012, the country's eastern departments experienced drought, causing small-scale growers and subsistence farmers to lose more than 80 percent of their basic grains.

In 2013, a severe outbreak of coffee rust affected at least 47 percent of the country's coffee plantations, according to Ministry of Agriculture and Livestock reports. By September 2013, this proportion had fallen to 16 percent, paving the way for a more favourable outlook than had previously been the case. However, in November of the same year, less favourable climatic conditions prompted another outbreak of coffee rust, this time affecting 40 percent of plantations. Institutions such as the Salvadoran Foundation for Coffee Research (PROCAFE) estimate that the few affected areas that underwent pruning or renewal will not bear fruit again until the 2015/2016 harvest.

Coffee is grown in 196 of El Salvador's 262 municipalities, and accounts for 72.8 percent of plantations in four departments: Ahuachapán, Santa Ana, Sonsonate and La Libertad. Coffee plantations in El Salvador cover 152,000 hectares, representing 16.4 percent of the country's total area cultivated nationally.<sup>2</sup> In recent decades, coffee production in El Salvador has suffered a marked decline, from 4.3 million quintals of *oro-uva*<sup>3</sup> in 1992/1993 to an estimated 0.7 million quintals in 2013/2014. According to the Salvadoran Coffee Council (CSC), the 2013/2014 harvest was 58 percent down on the 2012/2013 season.<sup>4</sup>

In response to this situation, in September 2013 the EFSVL team,<sup>5</sup> in coordination with the United Nations World Food Programme (WFP), provided unconditional food assistance to 5,110 families.

In November 2013, with a view to conducting a detailed analysis of the situation of day labourers on coffee plantations and small-scale growers, as well as looking at the impact of coffee rust on large producers, WFP, CSC, Save the Children and Oxfam conducted a study as part of the action plan drawn up by the Regional Coffee Rust Program, which was approved by the Agriculture Ministers of Central America (July 2013). The study analyzed the agricultural and socio-economic impact of coffee rust by focusing on and evaluating household food security. It revealed that 7,608 of the 47,409 households involved in coffee day labour were classed as being moderately food insecure, whereas 26,296 households were classed as slightly food insecure.

In February 2014, the government of El Salvador announced plans to spend \$5.6m on chemicals and fumigation campaigns to combat coffee rust. In July 2014, it began a program of conditional distribution of dry food rations, focusing on food for assets, food for training and/or the general distribution of food in areas not previously covered. This project was carried out in coordination with WFP and the European Commission's Humanitarian Aid and Civil Protection department (ECHO).

Within the framework of the projects 'Response to the Crisis Caused by the Impact of Coffee Rust on the Food Insecurity of Vulnerable Families' (financed by ECHO) and 'Emergency Food Security and Livelihoods Affected by Coffee Rust' (carried out in partnership with WFP), Oxfam evaluated the livelihoods and food security situation of those families most vulnerable to the impact of coffee rust. The study covered 91 communities across 11 municipalities in the four departments: La Libertad (Santa Tecla, Antiguo Cuscatlán and Tamanique); Usulután (Berlín, Alegría, Santiago de María and Tecapán); San Miguel (Chinameca); and Sonsonate (Nahuizalco, Salcoatitán and Juayúa). It involved a total of 3,609 affected families.

The project activities were implemented by the EFSVL team and its constituent organizations: the Federation of Central Region Agricultural Reform Cooperatives (FECORACEN), the El Salvador Association of Communal Projects (PROCOMES), the Humanitarian Aid Association (PROVIDA), the Foundation for Communal Cooperation and Development (CORDES), the Salvadoran Foundation for Reconstruction and Development (REDES), the Mangrove Association, and the Development Foundation (FUNDESA).

The study sample was determined by identifying the areas where food assistance was being provided. The list of households to be interviewed was established proportionally based on the overall total. On-site coordination meetings were held with each of the participating organizations, with a view to identifying the people who would be interviewed. These families had to fulfil certain requirements; they had to be dependent on coffee plantation day labour; experiencing food insecurity; and reporting a notable reduction in meal times and portions or having a high number of dependants.

The questionnaire used with the families had been validated and included aspects such as: family composition and school attendance; access to housing, health care, water and sanitation; agricultural production; vectors; sources of income; family assistance and assets; expenditure and debt; availability and consumption of food; shocks; and survival strategies. The questionnaire was designed to be processed electronically, to reduce the time involved in accessing the information needed for the analysis.



Family dependent on coffee plantation day labour in Tamanique, La Libertad. © Oxfam. Photo: Tania Moreno.

## RESULTS

Of the 3,609 households that participated in the study, 21 percent included more than one family, meaning that the total number of families interviewed increased to 4,367, with an average of six members per family. This equated to 23,819 people. In total, 47 percent of families reported that their head of household was



female; 26 percent of these families included pregnant and/or breastfeeding women.

Of the households interviewed, 55 percent grew basic grains and/or had market gardens; of these, 94 percent grew maize and 64 percent beans. However, the lack of water had caused them to suffer significant production losses: 83 percent of those who grew maize reported losses of more than 50 percent, while 46 percent of those who cultivated beans reported losses of more than 50 percent. Among all producers, 28 percent had maize reserves, which most (65 percent) reported would not last for more than six weeks.

The study showed that families derive their main sources of income from three activities: day labour on farms (73 percent), domestic services (9 percent) and the sale of basic grains (6 percent). Activities related to agricultural production therefore represent a combined total of 79 percent of family income, in contrast to the largest sources of food income for the households questioned, based on the Emergency Food Security Assessment (EFSA) measurement methodology developed by WFP.

This methodology established three main sources of food: food purchased using cash from day labour on farms (78 percent), followed by own production of cereals (20 percent) and food purchased using cash from non-agricultural work (11 percent).

The study suggests there are two factors that fundamentally affect the food security of these families: the lack of variety in their diet, and the coping strategies they use. The study also revealed that families eat red meat or shellfish less frequently than one day a week (the average quantity was so low that it is not reflected in the data).

Among the families interviewed, a typical diet is based on the consumption of maize, beans and oil (a caloric intake based largely on carbohydrates and fats), as well as some vegetables and eggs, in that order. This diet lacks sufficient protein, vitamins and minerals, leading to chronic malnutrition in children under five, pregnant women and breastfeeding mothers.

Vegetables such as tomatoes and onions are used to flavour or accompany other foods. This suggests they are consumed in small quantities, which means that consumption of foods rich in micronutrients is relatively low. This causes conditions such as anaemia and leads to deficiencies of important micronutrients such as vitamins A and C, and zinc, thereby increasing susceptibility to infectious diseases.

The research also identified a range of strategies people had used to adapt their consumption patterns. Given that families typically buy most of their food, they reported the following coping strategies: 87 percent had bought cheaper food; 72 percent had reduced meal portions; 68 percent had reduced the number of meals they eat every day; 66 percent had prioritised giving their children meals; 61 percent had asked for food loans; 52 percent had asked for credit at local shops; 47 percent had received food from family members or friends; and 30 percent had gone without eating for at least one day in the last 30 days. Taking the 3,609 households (equivalent to 4,367 families) that comprise the study sample, this means that 1,310 families have gone without eating for at least a day.

Based on the study results and the analysis of household needs, food consumption, access to food, and survival strategies, it is possible to identify some groups that are more vulnerable: families whose main income is derived from day labour on farms; families with a female head of household; large families; families with no food reserves; and families employing food consumption coping strategies.

With regard to needs, 98 percent of the households interviewed stated that food was their main priority, followed by health care and farming inputs. In addition, the 'other' category – selected by 28 percent of those interviewed – refers to job opportunities to enable them to increase household income.

The assistance these families had received to date mostly consisted of regular programs implemented by central government, such as the School Feeding and Health Program (PASE), and health care from local service providers. No other sources of support were identified.

## CONCLUSIONS

Over the next 12 months in El Salvador, the food security situation of day labourers and their households is likely to continue to worsen. When they have used up what little food reserves they have, they may have no choice but to resort to more drastic coping strategies, such as distress sales of assets and land.

Shortage of income in these households will be more marked for people who are part of value chains. Food shortages are expected to be more visible in small shops in remote areas, especially those located in municipalities that have been affected by recurring extreme weather events in recent years, including the drought of 2014. This situation is a result of unbalanced demand.

The effects of coffee rust are expected to continue affecting the livelihoods and food security situation of the households involved in this study for a number of years. This is partly due to the loss of income associated with lower demand for day labour on coffee plantations, but also the fall in international grain prices, which shows no signs of recovery.

The most vulnerable groups will continue to be those whose main source of food is closely linked to the income derived from day labour on farms – typically large households and those families with a female head of household.

## RECOMMENDATIONS

### Immediate actions

- Provide food assistance to households resorting to drastic coping strategies to deal with the effects of coffee rust on their livelihoods through distributing cash or vouchers (conditional or unconditional). This support must be provided for a minimum of three months to help beneficiaries get through the most critical period of the season.
- Encourage affected households to pursue new livelihoods activities, such as

family market gardens that include high-yield food crops and require little labour. Education and awareness-raising programs are also recommended, to promote acceptance and uptake of these new sources of livelihood.

- With regard to the need for intervention, an intensive agricultural extension program should be carried out and periodically evaluated in order to verify whether the desired outcomes have been achieved.
- Strengthen the PASE program, which the study revealed to be the main source of food support for affected families.
- Promote campaigns for better management and storage of food and preparation of nutritious recipes that use local ingredients.
- Diversify crops to promote a more varied diet, thereby strengthening the food security of affected families.
- Declare a food security emergency in the worst-affected areas of the country.

## **Short-term actions**

- Promote school market gardens that can contribute to a more varied, nutritious diet for school-age children, to supplement the PASE.
- Strengthen national strategic food reserves as a means of mitigating the impact of future shocks on families affected by coffee rust.
- Promote social programs that can supplement the incomes of families living in affected areas.

## **Medium-term actions**

- Approve and implement the Law on Food Sovereignty and Food and Nutrition Security.
- Help small-scale farmers establish irrigation systems to maintain cultivation of basic grains and vegetables during the summer.
- Rehabilitate the coffee plantations affected by coffee rust and introduce diversification strategies based on the production of alternative crops such as cocoa.
- Promote producer associations among small-scale farmers to reinvigorate the production and sale of food products in affected areas.
- Link the distribution of inputs for agricultural production in general, and the coffee sector in particular, to the Ministry of the Environment and Natural Resources' strategy for restoration of ecosystems and landscapes.

## NOTES

- 1 Government of El Salvador (May 2012) 'El Camino del Cambio en El Salvador, Creando Bases de una Sociedad Democrática, Incluyente y Equitativa' ('The Road to Change in El Salvador, Laying the Foundations for a Democratic, Inclusive and Fair Society'), p 24.
- 2 Data obtained from the fourth Agricultural Census. Ministry of Economy, 2007.
- 3 *Café uva*: unprocessed fruit. *Café oro*: seed without pulp.
- 4 Harvest estimates update, Salvadoran Coffee Council (CSC), February 2014.
- 5 The EFSVL team was created with Oxfam's support and consists of Salvadoran non-governmental organizations. The team conducts interventions during emergencies, focusing on livelihoods and food security. Its actions are governed by the following global humanitarian standards: Humanitarian Charter, Code of Conduct, Humanitarian Accountability Partnership, Sphere Project, Code of Conduct on Sexual Exploitation and Abuse, and Oxfam's standards based on emergency response capacity and quality.



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