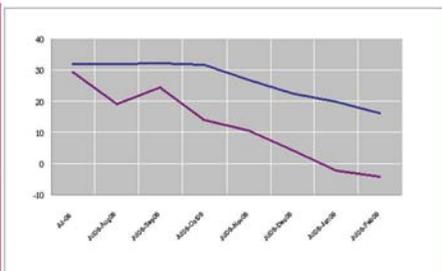


# Impact of the Global Financial Crisis

## NICARAGUA case study



April 2009

# EVALUATION OF THE EFFECTS OF THE GLOBAL FINANCIAL CRISIS AT MACRO-LEVEL AND ON VULNERABLE HOUSEHOLDS IN NICARAGUA

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## **EXECUTIVE SUMMARY**

The global financial crisis is creating a major recession in both developed and developing countries. According to a recent report from the International Monetary Fund, **Nicaragua is considered at 'medium' vulnerability to negative effects of the financial crisis at macro-level**, based on its current GDP growth and financial reserves. However, GDP growth, trade balance and national debt are expected to worsen due to the high dependence of the country's economy on the United States for exports (*'maquilas'* especially in the garment sector, coffee, seafood) and remittances (almost 20% of GDP). In fact, some *maquilas* have already closed, laying off about 19,000 employees, and export trends are downward. This situation will deteriorate further if Foreign Direct Investment and Official Development Assistance also decrease.

The deterioration of macro-economic indicators is **likely to affect the government's capacity to continue its investments in essential sectors** whose levels of coverage and quality are already low, such as safe water, sanitation, health and education services. As a result, already high levels of poverty (46% of the population is poor and 15% extremely poor) and chronic malnutrition among children under 5 years of age (more than 1 child out of 5 was stunted in 2005) will worsen. Population groups most likely to be affected by the lack of investment in essential services are the poor who live in rural areas, particularly in the northern Atlantic and Central regions, and who depend essentially on agriculture for their income.

At household level, the financial crisis comes immediately after the shock of the high food and fuel prices in 2007-2008. Information provided by purposively selected vulnerable households (individual interviews and Focus Group discussions) and from Key Informants in villages and urban neighborhoods likely to be affected by the crisis (areas of high migration, employment in *maquilas*, tourism), indicated that:

- the **frequency and sometimes the amount of remittances** sent by migrants from the US, Costa Rica or El Salvador have decreased due to reduced employment opportunities abroad;
- **employment in export-oriented factories** (*'maquilas'* in textile and car equipment, seafood, mines) has decreased, including closure of some;
- **profit from local small businesses is diminishing** due to reduced households' demand.

However, while these effects can be directly attributed to global financial crisis, households are also suffering from **decreased purchasing power** due to prices of food, agricultural inputs and raw materials that have remained high in most of the visited areas. In addition, low producer prices and lack of credit are discouraging crop cultivation and animal rearing. The deterioration of households' economic situation is translating into **poorer diet, lower incentives to cultivate and keep animals, decreased essential expenditures for health and education, and engagement into low-earning, informal income earning activities** (e.g. petty trade). Less important expenses are also suspended, including for clothes, shoes and house improvement. In future, households intend to increase out-migration and efforts to obtain credit, despite the risk of indebtedness that these entail.

At present, households most directly affected by the global financial crisis are those who rely on external remittances for a large share of their income (more than half), or on wage employment in export-oriented enterprises and handicrafts. Other households are indirectly impacted by the slow-down of the economy and loss of purchasing power. While **WFP 'typical' beneficiaries** may not yet be directly affected by the financial crisis due to their low involvement in external migration and wage employment, they are negatively affected by the lower demand for agricultural labour, high food, fuel and input prices, low producer prices and increased difficulties to obtain credit for food purchases.

**Both macro and micro analyses point towards likely higher levels of poverty** (intensity and magnitude), **malnutrition, and food insecurity**. Current and future households' coping strategies entail **severe costs for lives and livelihoods** in the short and medium terms. The satisfactory progress made by Nicaragua to reach the Millennium Development Goals

(MDGs) of reduced extreme poverty, increased primary school net enrollment, and reduced infant and child mortality, will be jeopardized, while the **MDG targets** that were already off track and needed additional efforts to sustain further improvement will definitely not be reached, including reduction of maternal mortality, access to reproductive health care services, chronic malnutrition, drinking water and sanitation, and illiteracy. There is also a **risk of increased delinquency**, particularly in urban areas, due to higher unemployment rates among the youth especially.

The Nicaraguan government, UN agencies and donors have responded to the high food and fuel price crisis in 2007-2008 by supporting or expanding social assistance programmes (e.g. school feeding, agricultural inputs). In view of the expected lower national budget and decreased households' income, including from employment in export-oriented activities (*maquilas*, agriculture) and from remittances, it is crucial that additional resources be mobilized and prioritized to:

- **Expand social assistance programmes** for the most vulnerable, including the poorest in the Atlantic and Central regions, and specific groups such as the indigenous, the newly unemployed, and those impoverished by decreased remittance flows.
  - School feeding programmes are particularly well targeted to the poor in Nicaragua and provide both an immediate transfer to households as well as longer-term benefits for the human capital;
  - Public works geared towards repairs and improvement of infrastructures such as water, sanitation, roads and electricity, support households' income and provide longer-term benefits for health, nutrition, and productivity;
  - Pre-natal care and nutrition education to encourage breastfeeding and adequate complementary feeding practices, contribute to maintain and improve child chronic malnutrition rates, with longer-term positive effects on educational and work achievements.
  
- **Intensify agricultural production** to raise incomes of the poorest and contribute to diversify food consumption.

**Monitoring of the situation at macro, meso** (selected rural and urban localities) and **micro** (household) **levels** is indispensable to follow-up changes in the capacity of the government to ensure food availability and access at national level, as well as the capacity of the population to obtain sufficient and adequate food and maintain an adequate nutritional status.

## **I - BACKGROUND**

### **1.1 - Rationale for the case study on the impact of financial crisis in Nicaragua**

Occurring immediately after the high food and fuel prices crisis, the global financial crisis is adding a new toll on already shaken economies and population of developing and transition countries.

In 2007 and 2008, high food and fuel prices resulted in increased food insecurity among net food consumers, who represent the majority of the population in developing and transition countries. Estimates suggest that the food crisis has already caused the number of people suffering from malnutrition to rise by 44 million<sup>1</sup>. The linkages between high food and fuel prices and household food insecurity are rather straightforward, with direct effects on agricultural production, purchasing power and economic access to food, quantity and quality of food consumed, and arbitrages made necessary between food, health and other essential expenditures such as education. The main effects of the high food prices crisis in Nicaragua are summarized in Section 1.2.3 (Box 3).

The International Monetary fund has identified a series of macroeconomic effects of the global financial crisis on 78 Low Income Countries (LICs) in particular, based on the structure of countries' economy, employment and institutional capacity (see Box 1). For poor households, limited port-folio of assets (human, social, financial, physical and natural) and already stretched coping capacities make it likely that they will be once again among the most affected. In addition, middle-income population groups may also become impoverished as unemployment increases and their income base shrinks, jeopardizing their food and nutrition security.

#### **Box 1 - General effects of the global financial crisis on Low Income Countries**

As indicated in a recent report<sup>2</sup> from the International Monetary Fund (IMF), the global economy is in the midst of a deep downturn that is taking its toll both in advanced and in emerging and developing countries. All major advanced economies are in recession, while activity in the latter countries is slowing abruptly. Dramatic declines in consumer and business confidence have triggered a sharp deceleration in domestic demand across the globe. World trade and industrial activity are falling sharply, while labour markets are weakening at a rapid pace, particularly in the United States,

The decline in commodity prices is providing some support to commodity importers, but is weighing heavily on growth in commodity exporters. The latter will be hard hit by the sharp decline in demand for commodities and in their prices. As other countries of Latin America and the Caribbean (LAC) region, Nicaragua's growth is also constrained by weaker external demand, notably from the United States, and tighter financial conditions. Many Low Income Countries (LICs) are also hit by lower remittances and Foreign Direct Investment (FDI), while aid flows are also under threat.

The balance of payments of many LICs has already been severely weakened by the 2007-08 spike in global fuel and food prices. In the case of Nicaragua, current accounts in percent of GDP were projected to worsen significantly in 2008 (-23.6%), with only a slight improvement in 2009 (-17.7%). The global financial crisis will worsen the budgetary position of many governments, with decreased revenues as economic activity slows and commodity prices fall, potential declines in donor support and tighter financial conditions. At the same time, there will be a need to increase spending to protect the poor. Indeed, transfer programmes that effectively target the poorest often result in a larger stimulus to aggregate demand, given their higher propensity to consume.

In LICs, financial market linkages are generally weak, but second-round effects of the economic

<sup>1</sup> Swimming Against the Tide: How Developing Countries Are Coping with the Global Crisis. Background Paper, World Bank, 13-14 March 2009

<sup>2</sup> The Implications of the Global Financial Crisis for Low-Income Countries. International Monetary Fund, March 2009

<sup>3</sup> Swimming Against the Tide: How Developing Countries Are Coping with the Global Crisis. Background Paper, World Bank, 13-14 March 2009

slowdown on the financial system could be severe. LICs are also more exposed than in the past to a downturn in global demand for services, such as transportation and tourism.

The economic crisis is projected to increase poverty by around 46 million people in 2009. The principal transmission channels will be **via employment and wage effects as well as declining remittance flows**. So far, the most affected sectors appear to be those that had been the most dynamic, typically urban-based exporters, construction, mining and manufacturing, such as the garment industry<sup>3</sup>.

To shed more light on the effects of the global financial crisis on household food security, the World Food Programme (WFP) in collaboration with partners, is undertaking case studies that combine a secondary data review of macroeconomic information with a rapid qualitative survey at community and household levels. The studies are currently conducted in 6 countries<sup>4</sup> in Africa, Asia, Central Europe and Latin America, out of a total of 40 countries considered likely to be most affected on the basis of their expected vulnerability to the financial crisis<sup>5</sup>.

The present report provides a **review of the expected effects of the financial crisis at macro- and micro (household) levels**. The first part of the report is a secondary data review of the pre-crisis main economic and social indicators and changes as a result of the global crisis. The second part provides the results of a rapid qualitative food security assessment to gauge the effects of the crisis on livelihood groups most likely to be affected. The last part of the report concludes on the main macro- and household-level effects of the global financial crisis on the country's economy, food security and nutrition situation. It also includes a summary of ongoing or planned interventions and suggestions for additional or complementary interventions.

## **1.2 - Geographic, demographic, social and political context in Nicaragua**

### 1.2.1 - Geography

Nicaragua is a small country in Central America, with an area of 129,500 km<sup>2</sup>. It consists of extensive Atlantic coastal plains rising to central interior mountains, and a narrow Pacific coastal plain interrupted by volcanoes. The climate is tropical in lowlands and cooler in highlands.

There are 15 departments and 2 autonomous regions (North Atlantic Region-RAAN and South Atlantic Region-RAAS) on the Atlantic coast, and 153 municipalities.

Region	Departments
Pacific	León, Chinandega, Managua, Carazo, Mayasa, Rivas, Granada
Central	Boaco, Chontales, Matagalpa, Estela, Jinotega, Nueva Segovia, Madriz
Atlantic	Río San Juan Regional Autonomous North Atlantic –RAAN, Regional Autonomous South Atlantic –RAAS

There are also 189 urban localities with population of 2,000 to 1 million inhabitants, and 7,500 dispersed rural communities. Among the 189 urban localities, 105 are considered 'small towns', each with a population of less than 5,000. Managua (capital), León and Granada (two main provincial cities) are all located in the Pacific lowland region. About **59% of the population is urban**, which is lower than the average for Latin America and the Caribbean, but this proportion is gradually increasing. Managua is home to more than ¼ of the Nicaraguan population.

<sup>4</sup> Armenia, Bangladesh, Ethiopia, Ghana, Nicaragua and Zambia

<sup>5</sup> Vulnerability to the financial crisis was estimated through an Economic Shock and Hunger Index (ESH) composed of indicators on: remittances (as % GDP), trade (as % GDP), Foreign Direct Investment (as % GDP), Official Development Assistance (as % GDP), currency values (% change of exchange rate against US\$ and per capita GDP in purchasing power parity), current account deficits (as % GDP), debt servicing (as % GNI), status of Low Income Food Deficit country, % population undernourished, and % children below 5 years of age underweight.

### 1.2.2 - Demography

The population was estimated at 5.6 million persons at mid-2007, with an average annual growth of 1.3% between 2001 and 2007. The total fertility rate was estimated at 2.8 children per woman (4.4 in rural areas versus 2.6 in urban areas), a marked reduction compared to 1990 (4.8 children). **More than half of the population is under 18 years of age.**

The population is composed of about 69% of *mestizos* (mixed European and indigenous), 17% white, 9% black Afro-Caribbean and 5% indigenous<sup>6</sup>. In RRAN and RAAS, the indigenous and Afro-Caribbean account for 42% of the population, and the *mestizos*<sup>7</sup> for the other 58%.

The population is unevenly distributed. **Most Nicaraguans (88%) live in the Pacific region (lowlands) and the adjacent Central region (interior highlands)**, which represent 45% of the total territory. The Atlantic coast is a large rainforest region crossed by several rivers, comprising 55% of the territory but only 12% of the population.

Life expectancy at birth was 72 years in 2006 (similar to the average for Latin America and the Caribbean). **About 1/4<sup>th</sup> of households are headed by a woman**, lower than the 31% found in the 2001 Demographic and Health Survey (DHS)<sup>8</sup>. In the 2001 DHS, the average size of households was 5 members in urban areas and 6 members in rural areas.

### 1.2.3 - Political and social situation

After a period of civil disturbance between the early 1960s and the end of the 1980s, democratic elections took place in 1990 and enabled social progress and economic stabilization (see Box 2).

#### **Box 2 – Recent political history in Nicaragua**

Somoza (and his two sons who succeeded him) took power in 1936 and maintained close ties with the United States. The Somoza dynasty ended in 1979 with a massive uprising led by the Sandinista National Liberation Front (FSLN), which had conducted a low-scale guerilla war against the Somoza regime since the early 1960s.

The FSLN established an authoritarian dictatorship soon after taking power and civil war raged during the 1980s. The Sandinista regime entered into negotiations with the Nicaraguan resistance and agreed to nation-wide elections in February 1990. The candidate of the National Opposition Union, Violeta Barrios de Chamorro, was elected. During her 7-year term, major progress was made towards consolidating democratic institutions, advancing national reconciliation, stabilizing the economy and privatizing state-owned enterprise. Further series of democratic elections took place between 1997 and 2006, when FSLN candidate Daniel Ortega won the presidency.

Nearly half of Nicaragua workforce of 1.9 million persons, including agricultural workers, is now unionized.

Nicaragua's social indicators rank among the lowest in Latin America, commensurate with its relatively low per capita income level (see Section 2.1).

By 2005, Nicaragua had made satisfactory progress on meeting the Millennium Development Goals (MDGs) targets for reducing extreme poverty, increasing primary net enrollment, and reducing infant and child mortality. However, **MDG targets were off track** and needed additional efforts to sustain further improvement in **maternal mortality, access to reproductive health care services, chronic malnutrition, drinking water and sanitation, and illiteracy.**

<sup>6</sup> Indigenous people are concentrated in the Atlantic autonomous regions and the Alto Coto and Bocay areas<sup>6</sup>. They have traditionally different livelihoods than the ethnic communities, being mostly engaged in gathering of wild plants and plant products, fishing, hunting and some agro-forestry activities, while the ethnic communities tend to be more engaged in productive and commercial activities.

<sup>7</sup> The migration of *mestizos* from the Pacific region seeking land is raising concern, as the aggressive colonization effort continues to expand the agricultural frontiers of Central Nicaragua toward the east in indiscriminate exploitation of land, forest depredation, cattle farming, commercial fishing and unsustainable abuse of biodiversity.

<sup>8</sup> Encuesta Nicaragüense de Demografía y Salud (ENDESA) 2001

### 1.3 - Vulnerability to shocks

#### 1.3.1 - Natural disasters

**The country is prone to a series of natural disasters, including hurricanes, earthquakes, floods and droughts** (the latter particularly in the Central corridor). In September 2007, Hurricane Felix crossed Central America, affecting the three countries of Nicaragua, Honduras and Guatemala with torrential rains, floods and destructive winds that damaged roads, bridges, crops and housing of thousands of persons, as well as their livelihoods. One year later, in October 2008, a series of storms and atmospheric depressions caused new damage in Central America, affecting Guatemala, Honduras, Nicaragua and El Salvador, where dozens of thousands of people got displaced to seek refuge. Housing, infrastructure, crops and livestock were badly damaged. Both events are considered among the most severe disasters since Hurricane Mitch which devastated the region in 1998.

Recurring climatic events are every time more intense due to climatic change. They demonstrate the need to strengthen community capacities to respond to crises. In the context of the global financial crisis, unemployment and lack of resources for poor families, the food security situation gets worse and reaches isolated communities, affecting their livelihoods

#### 1.3.2 - Economic shocks

As a small, open economy, Nicaragua is vulnerable to economic shocks, including high food and fuel prices and the current financial crisis.

Nicaragua has been severely hit by the increase in food prices (see Box 3). **Food inflation has been amongst the highest in the region**, reaching an annual inflation rate of almost 29% in October 2008, after a peak of 34% in August. This high inflation is the result of global developments compounded by natural disasters (Hurricane Felix and heavy flooding over the 2<sup>nd</sup> part of 2008) that dramatically affected domestic food production.

#### **Box 3 - Effects of the high food prices in Nicaragua**

Between early 2006 and mid-2008, global food prices have increased dramatically. In Nicaragua, domestic food price inflation increased from 10.7% in January 2006 (year-on-year) to 34.2% in August 2008.

High food prices affect a majority of Nicaraguans, but the poor were affected disproportionately. According to the World Bank<sup>9</sup>, **about 90% of Nicaraguans are net food consumers, 79% in rural areas and 98% in urban areas**. The poor are disproportionately affected by high food price inflation rates as the share of their incomes devoted to food purchases is larger than higher income groups. In 2007, the extreme poor in rural areas and the poorest decile experienced an inflation rate 3.4 percentage points higher than the average (2.6 for the extreme poor in urban areas).

Experience from the coffee crisis that affected Nicaragua in 1998-2001 suggests such external shocks can have significant impact on nutrition and enrolment in schools, as well as on productive capacity. This happens when households engage in depletive coping strategies such as the sale of their productive assets, withdrawal of children from school, deferred utilization of preventive and curative health services, or drastic reduction of food intake. Consequences include deeper chronic poverty through long-term productivity losses, and increased inter-generational transmission of poverty.

Beans, sorghum, maize and rice are key staples in the diets of the poor most affected by the crisis and variations of their prices have dramatic effects.

<sup>9</sup> Emergency Food Price Response Project. Project Information Document Appraisal Stage – Report AB4193. December 2008, World Bank

## **II - PRE-CRISIS SOCIO-ECONOMIC CONTEXT AND EFFECTS OF THE GLOBAL FINANCIAL CRISIS**

Over the past 12 years, Nicaragua has witnessed a significant transformation. From a nation torn by war, political instability and natural disasters with its economy plunged into chaos, it has re-emerged as an inclusive democracy where the foundations for economic growth and sustainable development are being laid. However, Nicaragua still remains among the poorest countries in the western hemisphere. Furthermore, the characteristics of its economy and population make it prone to many of the adverse effects anticipated from the global financial crisis, with **macro-economic impacts spilling over to households' through impacts on poverty, food security and nutrition.**

### **2.1 - Economy**

#### **2.1.1 - Pre-crisis economic situation**<sup>10</sup>

Years of political conflict, natural disasters and a civil war in the 1970s-80s, together with unfavorable economic conditions and corruption, severely constrained growth and increased poverty. By the early 1990s, Nicaragua had become the country with the slowest economic growth in the Latin America and Caribbean (LAC) region, and one of the most indebted and economically unstable in the world<sup>11</sup>.

While progress was made during the first half of the 1990s (market economy, modernization, reforms etc.), the devastation of Hurricane Mitch in October 1998 led the government to focus on short-term emergency needs of its population and it lost its long-term development focus. Indeed, investment has been fueled by foreign assistance. Until 2001, recovering from the aftermath of the hurricane was a prime policy objective, with massive reconstruction efforts<sup>12</sup>, which, together with important flows of foreign assistance, led to an increase in public investment of 27% in 1999.

#### **• Gross National Income (GNI) and Gross Domestic Product (GDP)**

**GNI was US\$980 per capita in 2007**, which is about 1/3<sup>rd</sup> of the average value for the LAC region, and half the average of all Lower-Middle Income countries. Despite the shock of the hurricane in 1998, a banking sector crisis in 2001, and the collapse of coffee prices (2001), **overall economic growth averaged 1.7% per capita in real terms during 2001-2006**. Growth subsequently accelerated thanks to a surge in investment and rapid increase of exports (2.9% per capita in 2007), but **the pace of growth slowed down in 2008**, as growth in the agricultural sector was offset by a decrease in investment and rising wages, food prices, and energy costs.

The sectoral structure of GDP remained relatively constant during the past 10 years. However, within the secondary and tertiary sectors there were some important developments, namely the growth of the *maquila* sector (essentially food and beverages, and clothing) and an important surge in financial intermediation. **Growth in the *maquila* sector has had important implications in terms of the availability of foreign reserves and employment.** Between 2001 and 2005, the share of *maquila* exports in total exports jumped from 32% to 50% and the sector generated over 53,000 new jobs<sup>13</sup>, mostly occupied by women.

In 2007, **agriculture represented almost 20% of GDP** (down from 24% in 1997), **industry about 30% GDP** (up from 27% in 1997) and **services about half of GDP** (stable) Agriculture

<sup>10</sup> Nicaragua At a Glance. World Bank, September 2008

<sup>11</sup> Nicaragua Country Brief. World Bank, 2008

<sup>12</sup> Making Work Pay in Nicaragua. Employment, Growth and Poverty Reduction. C. Gutierrez, P. Paci, M. Ranzani. Report No. 44647. World Bank, 2008

<sup>13</sup> The *maquila* sector comprises all production units located in the special export processing zones (EPZs), which are clearly defined zones, often within a wired complex. Production is undertaken with mostly imported materials using local labour, and all output is destined for export markets.

grew at 4.2% per year in 2006 and 2007, while industry grew by 2.5% and 4.2% respectively, and services by 4.1% and 9.7%.

- *Public debt*

In 2004, Nicaragua reached the completion point under the Highly Indebted Poor Countries (HIPC) and bilateral and multilateral debt relief was granted for debt incurred prior to 2005. The ratio of national debt to GDP improved from 205.8 in 1987 to 82.8 in 2007. The public debt thus dropped to an expected 55% of GDP by the end of 2007. National budget balance (overall surplus/deficit) was -3.9 in 2006 and -5.1 in 2007.

- *Imports-exports and trade balance*

The main agricultural products are maize, coffee, sugar, meat, rice, beans, bananas, beef and dairy. Industry includes textiles, paper and wood products, metal products petroleum refining and plastics. The main services are banking, wholesale and retail distribution, telecommunications and energy<sup>14</sup>.

Trade with Honduras, El Salvador and Guatemala has been gaining importance, although the US remains the major trading partner. Overall, **the Nicaraguan economy is heavily dependent on the US economy** for its exports earnings, employment in US firms based in Nicaragua, and remittances received from migrants in the US (see Section 2.7).

**Box 4 – Importance of trade with the US**

In 2006, the US-Central America-Dominican Republic Free Trade Agreement (CAFTA-DR) entered into force for Nicaragua. In 2005, Nicaraguan exports to the US rose 36%, representing more than half of all Nicaragua's exports.

Textile and apparel accounted for 3/5<sup>th</sup> of these exports, and automobile wiring harnesses for another 10%. Other leading exports to the US include coffee, meat, cigars, sugar, ethanol, fresh fruit and vegetables, all of which have seen remarkable growth under CAFTA-DR.

The ratio of exports to total GDP grew from 12% in 1987 to 45% in 2007. Exports grew by 8.9% in 2007. Total exports amounted to US\$2.6 million in 2007, a slight progression compared to 2006 (US\$2.3 million). **Main exports** (in value) are **coffee, seafood** (shrimp and lobster), and **manufactures**. Beef, sugar, gold and bananas are also significant exports. A large share of exports is destined to the US (see Box 4).

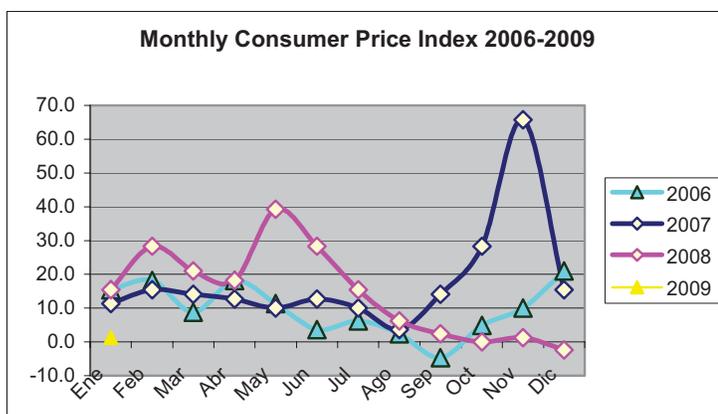
Imports represent 75% of GDP, a marked increase from 14% in 1987 and 48% in 1997. Imports growth was 6.1% in 2006 and 8.1% in 2007. Total imports amounted to US\$4.3 million in 2007, up from US\$3.9 million in 2006. **Main imports** (in value) are **food, fuel and energy, capital good** and agricultural inputs.

The **balance of trade between exports and imports deteriorated between 1997 and 2007**: from a base 100 in 2000, The ratio improved to 111 in 1997 but went down to 86 in 2007.

- *Inflation*

The average annual inflation rate between 1990 and 2006 was high, at 22%, and it was about 17% in 2007. Domestic prices increased by 9.1% in 2006 and 7.2% in 2007.

<sup>14</sup> Nicaragua Profile. US Department of State, 2008



The **increase of global food prices** affected Nicaragua domestic prices. Domestic food price inflation increased from about 11% in January 2006 (year-on-year) to a peak of 34% in August 2008 and **almost 29% in October 2008**.

- *Foreign Direct Investment (FDI) and Official Development Assistance (ODA)*  
FDI totaled US\$237 million in 2007, including significant investments from the US (milling), Mexico and Spain (telecommunications infrastructure). ODA amounted to US\$740 million in 2005.

#### 2.1.2 - Effects of the global financial crisis on the economy<sup>15</sup>

- *Vulnerability to possible additional economic shocks*  
A review of the International Monetary Fund in March 2009 of 78 Low Income Countries located Nicaragua amongst **31 countries at 'medium' vulnerability<sup>16</sup> to the adverse effects associated with the global recession**, considering its GDP growth and financial reserves. Amongst the 9 LICs in the LAC region, Nicaragua was one of 4 countries at 'medium' vulnerability; 4 other countries were at 'high' vulnerability and only 1 (Bolivia) at 'low' vulnerability.

More specifically, Nicaragua will be at 'low' vulnerability in the event of a trade shock<sup>17</sup>, at 'medium' vulnerability in the event of a shock on FDI or aid, and **at 'high' vulnerability in the event of a remittances shock**. The slowdown in economic activity and trade will affect fiscal revenues directly, given the reliance on trade taxes. In addition, falling remittances from abroad can be expected to hit domestic consumption, and hence revenues from consumption taxes. The tourism industry is also likely to contract.

The IMF estimates indicate that such a combined shock would require US\$745 million of financing needs to offset the changes in balance of payments flows and reserves compared to the 2008 projections. In fact, this amount is lower than the funding needs estimated in the absence of a shock (US\$1,797 million), probably because of an improvement of the balance of trade.

<sup>15</sup> The Implications of the Global Financial Crisis for Low-Income Countries. International Monetary Fund, March 2009

<sup>16</sup> The level of vulnerability was judged on the basis of expected decrease of GDP and financial reserves for imports coverage. 'High' vulnerability corresponded to a reduction in excess of 2.5% GDP and imports reserve coverage of less than 3 months in 2008 and could lose an extra 0.5 months in the shock scenario. 'Medium' vulnerability corresponded to countries which would suffer a reduction of no more than 0.5% GDP and countries that either start with more than 3 months of imports coverage and lose more than 0.5 months in the shock, or start below 3 months of imports coverage and lose less than 0.5 months with the shock.

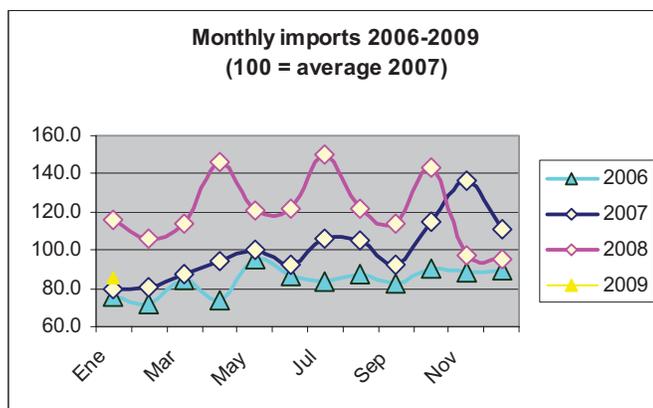
<sup>17</sup> The trade shock simulation for 2009 envisaged a return of commodity prices from their end-2008 levels to their 1995-2007 average, and a 10% decline in the 2008 value of other exports and services.

- *Expected effects on the financial sector*

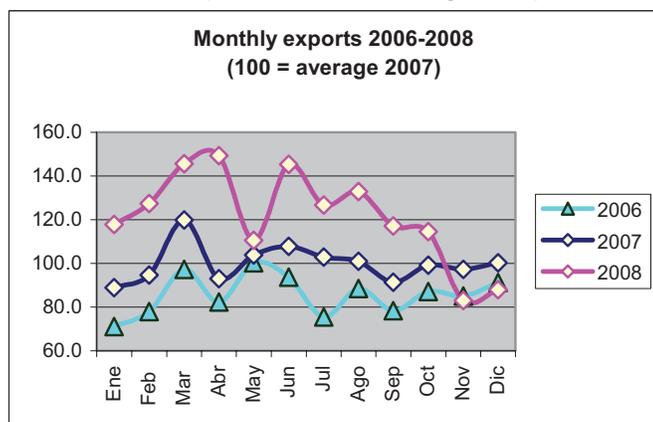
Early 2009, the global financial markets crisis did not seem to have significantly affected the Nicaraguan financial sector. Domestic commercial banks were maintaining liquidity ratios comparable to those observed before the turmoil. Authorities also announced their readiness to provide liquidity assistance should banks come under stress. However, the national bank did increase its interest rates, with negative effects on access to credit for enterprises.

- *Expected effects on imports and exports*

Contrarily to the typical seasonal and previous years' pattern, importations seem to have decreased since end 2008 reflecting reduced economic activity and importation capacity.



Exports were projected to grow at 7.3% per year between 2007 and 2011, but this growth is **likely to decrease sharply as a result of the global financial crisis**. The crisis is expected to severely affect the garment industry and workers because of declining sales in North American and European stores, at least for some categories of apparel imports from the South<sup>18</sup>. The impact on Nicaragua apparel exports was not yet fully apparent in 2008, partly because they reflect orders done months before, but a downward trend since mid-2008 can be observed and prospects for 2009 are pessimistic. However, some decrease of exports was noted for traditional items such as sugar cane, coffee, lobster, groundnuts, meat and alcoholic beverages. The evolution of the exchange rate against the US dollar will also be important to determine the competitiveness of Nicaraguan exports.



- *Expected effects on inflation*

**Inflation is expected to drop sharply in 2009** from the peaks seen in 2008 due to the food and fuel price shocks. With the decline of these prices, initial pressures are receding. Falling demand in the wake of the global crisis will help lower inflation further.

<sup>18</sup> How will the global financial crisis affect the garment industry and garment workers? Maquila Solidarity Network, February 2009

- *Expected effects on GDP growth and financial reserves*

Before the financial crisis, taking into account the effects of the high food and fuel prices and other economic conditions for the country, GDP growth for Nicaragua was projected at 4% for 2008 and 4.2% for 2009. National financial reserves were estimated at 1.4 months of imports in 2008 and 0.8 months 2009. With the onset of the global financial crisis, **GDP growth is projected to decrease to 3% for 2008 and 1.5% for 2009**, hence a reduction of -2.7% for 2009. However, financial reserves would increase to 3 months in 2008 and 1.5 months in 2009 thanks to the reduced import bill resulting from lower commodity prices and consumer demand.

- *Expected effects of a 'trade shock' on current accounts*

Projections of trade balance and current account changes due to the global financial crisis are shaped by the collapse of commodity prices, and the anticipated adverse effects of the crisis on the country exports and remittance inflows. **Current accounts in percent of GDP were projected to worsen significantly in 2008 (-23.6%), with a slight improvement in 2009 (-17.7%)** possibly related to decreased consumer demand. However, the country vulnerability in case of additional shocks would increase (see Box 5).

**Box 5 – Nicaragua economic vulnerability in the event of additional trade shocks**

Nicaragua is expected to be at 'low' vulnerability in the event of an additional trade shock from the global financial crisis consisting of a return of commodities prices from their end-2008 levels to their 1995-2007 averages and a 10% decline in the 2008 value of other exports and services, would not change much the negative 2009 projection (-18.9%), as both phenomena would practically compensate themselves (decreased import costs as well as exports earnings).

However, Nicaragua will be 'highly' vulnerable to a hypothetical trade shock consisting of a return of commodity prices from their end-2008 levels to their 1995-2007 averages, a 10% decline in the 2008 of other exports and services, and a 25% increase in oil prices. In that case, the 2009 accounts projection would worsen significantly (-32.7%), reflecting the country's high dependence on imported oil for its energy.

*Source: The Implications of the Global Financial Crisis for Low-Income Countries. International Monetary Fund, March 2009*

- *Expected effects of reduced Foreign Direct Investment (FDI) and aid on GDP, financial reserves and debt*

**FDI was projected to amount to 7.1% of GDP in 2008 and to decrease slightly to 6.1% in 2009.** Nicaragua will be at 'medium' vulnerability in the event of a reduction of FDI by 30% of its 2008 value due to the global financial crisis, because both FDI and financial reserves would remain practically the same as without the shock (4.3% of GDP and 3.1 months of imports).

**Aid was estimated to represent 11.5% of GDP in 2008 and to remain about the same in 2009 (11.1%).** In the hypothesis of a reduction of aid by 30% as a result of the financial crisis, aid would decrease to 8.4% of GDP, while financial reserves decrease from 2.5 to 2 months of imports. As a result, Nicaragua is considered at 'medium' vulnerability to an 'aid shock' due to the global financial crisis.

Pre-crisis, national debt represented 69% of GDP in 2008 and was projected at 54% in 2009. In the hypothesis of reduced FDI and aid by 30% of their 2008 value and their replacement by external debt, the total debt would increase significantly at 75% of GDP in 2009.

- *Expected effects of decreased remittances on GDP and financial reserves*

Given the importance of remittances for the economy (see Section 2.7), Nicaragua is **'highly' vulnerable to a reduction of remittances.** In 2008, remittances were estimated to represent almost 13% of GDP and **projected to decrease slightly to 12% of GDP in 2009.** In the hypothesis of decrease of about 1/3<sup>rd</sup> of the remittances as a result of the global financial crisis<sup>19</sup>, remittances would represent only 9% of GDP in 2009, and reserves would decrease to 1.9 months of imports coverage, versus 3 months in the absence of reduction.

<sup>19</sup> Recent evidence suggests that in some countries the decline in remittances can be substantial. In Honduras for example, remittances declined by 4.5% in October 2008 (year-on-year).

## **2.2 - Employment and sources of income**

### **2.2.1 - Pre-crisis employment and sources of income**<sup>20</sup>

As Nicaragua has experienced an important demographic transition, the share of working-age population (15-64 years) has increased faster than other age ranges, thus reducing the dependency ratio. Official unemployment was 5% in 2007, but this is likely underestimated. It must be noted that unemployment has not been found to be strongly correlated with poverty. Child labour<sup>21</sup> is relatively high (about 9%).

Trends in employment have been rather positive between 2001 and 2005: the average annual employment growth was 4%, greater than the growth in the labour force (3%). During these 4 years, **the growing labour force was absorbed by the agriculture, manufacturing (especially clothing) and commerce sectors** (food and beverage, and clothing). These sectors account for around 2/3<sup>rd</sup> of total employment (agriculture absorbs 1/3<sup>rd</sup> of employment). However, employment has increased disproportionately among household enterprise workers and the individual self-employed, which are the categories with lowest earnings<sup>22</sup>. Box 6 provides more details on the structure employment and income sources.

**About 60% of all workers earn a living in the informal sector**<sup>23</sup>, where under-employment is high. Formal jobs are mostly held by the non-poor. Most workers hold only one job: less than 10% have 2 or more jobs, a figure below that of other LICs. **Education levels are directly associated with higher earnings**, both in the agriculture and non-agriculture sectors, and in formal and informal sectors.

#### **Box 6 – Structure of employment and income sources in Nicaragua**

The bulk of non-agricultural workers is employed as wage and salary workers (43% in 2001). In the agricultural sector, the bulk of employment is evenly distributed between those employed in agricultural family enterprises, and the wage and salary workers (11% each in 2001).

**Non-agricultural wages are the largest source of income for the average household** (45% of total income) followed by agriculture, non-agricultural self-employment, and remittances. However, poor wage earners receive their income mainly from agriculture. For the poorest quintile, agriculture provides half of the income, compared to less than 10% for the upper quintile. The share of remittances for the income of the non-poor has increased between 2001 and 2005, while public transfers have increased for the poor and extremely poor.

**Earnings are lower for all those working in the agricultural sector.** Among agricultural workers, the **lowest income** is obtained by **household enterprise workers** (40% have low earnings) and the **individually self-employed** (55% low earnings). Outside agriculture, wage employment is not necessarily a better earning option. However, yearly earnings among the self-employed are lower, suggesting that they are employed for shorter periods or work fewer hours<sup>24</sup>.

Between 2001 and 2005, employment increased in agriculture but productivity decreased. The fall in productivity did not translate into lower wages however, thanks to higher producer price for export commodities (beans and coffee) and for "sensitive" commodities<sup>25</sup>. **Producer prices increased for all commodities (except for milk) and terms of trade improved:** relative prices for coffee rose almost

<sup>20</sup> Making Work Pay in Nicaragua. Employment, Growth and Poverty Reduction. C. Gutierrez, P. Paci, M. Ranzani. Report No. 44647. World Bank, 2008

<sup>21</sup> Child labour is understood as a child 6-14 years of age who performed market activities for at least 1 hour per week prior to the survey, or who has a permanent job

<sup>22</sup> Making Work Pay in Nicaragua. Employment, Growth and Poverty Reduction. C. Gutierrez, P. Paci, M. Ranzani. Report No. 44647. World Bank, 2008

<sup>23</sup> Formal employment is employment for which social security contributions are paid by workers and firms

<sup>24</sup> Making Work Pay in Nicaragua. Employment, Growth and Poverty Reduction. C. Gutierrez, P. Paci, M. Ranzani. Report No. 44647. World Bank, 2008

<sup>25</sup> "Sensitive" commodities include beef, milk, rice and corn which benefit from high tariff protection, are economically vulnerable and possess significant socio-economic importance because they are produced by small and medium-scale farmers.

100% between 2001 and 2005, while prices for maize, beans and meat were 30%-40% higher.

In the case of the manufacturing sector, where employment also increased, both productivity and wages decreased.

Source: *Making Work Pay in Nicaragua. Employment, Growth and Poverty Reduction*. C. Gutierrez, P. Paci, M. Ranzani. Report No. 44647. World Bank, 2008

### 2.2.2 - Effects of the global financial crisis on employment and sources of income

The cohort between 6 and 14 years, which represents the largest fraction of the population, will enter the labour market in the coming years. On the other hand, each new worker will have to support fewer dependents thanks to the demographic change of the population. However, for this situation to result in decreased poverty, the new working adults will need to find sufficiently well-paid jobs, a rather unlikely perspective in the current context of reduced job opportunities due to the economic recession.

There are over 100 companies operating in Nicaragua with some relation to a US company, either wholly or partly-owned subsidiaries, franchisees, or exclusive distributors of US products. The largest are in energy, financial services, apparel, manufacturing and fisheries. **The slow-down of the US economy is expected to affect employment and outputs of these companies.**

Between 2001 and 2005, the *maquila* sector, mostly clothing as well as car equipment, contributed for almost 1/3<sup>rd</sup> of employment generation. With the financial crisis, **employment in the sector is expected to shrink**, especially in the garment industry as it is one of the most severely hit by the financial crisis as a result of the reduction of demand by US customers. Indeed, some *maquilas* have already closed early 2009 and an estimated 19,000 workers are estimated to have lost their jobs from the closure of 9 *maquilas*<sup>26</sup>. Women will be particularly affected as most *maquila* workers are females. Some decrease in the number of people employed in the construction sector was also noted between 2008 and early 2009 (minus 1,100 persons), but not yet in the mines sector. Little comfort can be expected from social security systems, as only some 19% of the labour force in Nicaragua benefits from social security.

The agriculture sector also contributed to employment growth between 2001 and 2005, in great part thanks to the improvement of producers' terms of trade. A reversal due to decrease of agricultural export markets (which is somehow happening as indicated in Section 2.1.2) is likely to trigger a movement of labour out of agriculture and downwards pressure on wages in all sectors, particularly in sectors affecting the poor with low levels of education. Self-employment and family work may increase but these jobs provide low incomes in the agricultural sector.

The reduction of coffee exports noted at the end of 2008-early 2009 is not expected to affect coffee workers immediately due to the fact that these exports correspond to commitments made 6 months ago. Other agricultural products (sugar cane, groundnuts, lobster, meat) whose exports have decreased, workers employed in related factories may be affected.

Data collected at household level in selected areas of the country have **confirmed decreased employment and working hours in *maquilas* as well as in some mines, construction enterprises or factories** involved in export sales such as seafood (see Section 3.2).

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<sup>26</sup> La Voz del Sandismo, 15 December 2008

## **2.3 - Poverty**

### **2.3.1 - Pre-crisis poverty levels**

Nicaragua is the 2<sup>nd</sup> poorest country in the Americas (after Haiti). The country ranked 110 out of 177 countries based on the Human Development Index<sup>27</sup> 2007/08. **Income inequality is high**, with the four poorest deciles (40% households) earning only 15% of total income while the two richest deciles (20% households) earning 49%.

**Almost half of the population (46%) is poor**, living with less than US\$ 1 per day, and **15% extremely poor** (less than US\$0.5 per day)<sup>28</sup>.

Despite modest economic growth and important employment growth, global poverty levels have not improved much and are similar now to those of 2001. However, **extreme poverty fell from 19% in 1993 to 15% in 2005**. The modest poverty reduction is in contrast to substantial progress made in the late 1990s in rural areas, with a reduction of poverty from 76% to 69% between 1993 and 1998. The main reasons for the slight poverty decrease in recent years are summarized in Box 8.

#### **Box 7 – Earnings in poor rural communities, small localities and peri-urban areas**

A study conducted by the World Bank in poor rural communities (< 2,000 inhabitants), small localities (2,000-15,000 inhabitants) and peri-urban neighbourhoods of Managua early 2008 found that:

- more than 90% of rural community workers earned less than 3,000 córdobas monthly, e.g. less than US\$5/day<sup>29</sup>;
- 95% of workers in small localities and peri-urban neighbourhoods earned less than 5,000 córdobas monthly, e.g. less than US\$8/day.

As only 1 to 2 persons were working in each household, considering an average of 5 members per household, these earnings represented respectively less than US\$1-2 per person per day in rural communities and less than US\$2-3 per person per day in small localities and peri-urban neighbourhoods. These levels correspond to situations of extreme poverty and poverty.

*Source: El Estado del Saneamiento en Nicaragua. Resultados de una Evaluación en Comunidades Rurales, Pequeñas Localidades y Zonas Periurbanas. Report No.44169, Programa de Agua y Saneamiento, World Bank, May 2008*

<sup>27</sup> The Human Development Index provides a composite measure of 3 dimensions of human development: (1) living a long and healthy life (measured by life expectancy), (2) being educated (measured by adult literacy and enrolment at the primary, secondary and tertiary levels), and (3) having a decent standard of living (measured by purchasing power parity-PPP and income)

<sup>28</sup> The 2005 extreme poverty line was determined by computing the annual cost to buy a bundle of food that provides 2,190 kcal/day. The 2005 poverty line was the sum of the extreme poverty line plus an additional amount for the share dedicated to non-food consumption. This share of non-food consumption was the same as that for households whose food consumption was around the extreme poverty line. In 2007, the government revised upwards the minimum caloric intake to 2,240 kcal/day and consequently both poverty lines are higher.

<sup>29</sup> Exchange rate of 1US\$=19.9 córdobas in March 2009

**Box 8 – Main factors having contributed to decrease of poverty rates in 2001-2005**

Between 2001 and 2005, poverty rates decreased among the employed but increased among the unemployed and the inactive (including discouraged workers and seasonally unemployed). In fact, **while the poverty rate among the rural employed decreased, it was more than compensated for by an increase in poverty among the rural inactive.** The small increase in income among the poor has primarily derived from a resurgence in agricultural earning. Agriculture accounts for 50% of the income of the poorest quintile of the population.

The modest reduction of poverty in Nicaragua may be explained by 3 mechanisms which underscore the **fragility of this progress** and the need for sustainable and pro-poor economic growth that provides employment opportunities for the growing labour force:

1. Improvement in producer prices for coffee, meat, maize and beans, which are produced by small farmers, translating in better terms of trade for agriculture with substantial gains for the poor self-employed in rural areas, but which could be easily reversed by either trade or natural shocks;
2. Recent increase in migration by the poor, with Costa Rica as their main destination, whose remittances raise the household income, but are relatively modest and will tend to decline over time;
3. Increase in the number of family members working among the poor, in manufacturing (mainly *maquila*), agriculture and, to a lesser extent commerce, with the consequent reduction of dependency ratios; but with declining labour productivity in agriculture and in low paying jobs with scarce benefits in manufacturing, such as *maquila*.

Sources: *Making Work Pay in Nicaragua. Employment, Growth and Poverty Reduction.* C. Gutierrez, P. Paci, M. Ranzani. Report No. 44647. World Bank, 2008 - *Nicaragua Poverty Assessment. Volume I: Main Report.* Report No.39736-NI. World Bank, May 2008

Extreme poverty is particularly concentrated in the **Central and Atlantic regions.** Poverty levels are particularly high in the **two autonomous regions of the Atlantic coast** (North and South Atlantic Regions), and in the **Alto Coco region**, which are home to most of the country's **indigenous population.**

**Proportion of poor people per Region and Managua, 2005**

Region/city	Area	Extreme poor	Poor	Non-poor	National average
<b>Managua</b>	Capital	5%	10%	37%	24%
<b>Pacific</b>	Urban	5%	13%	20%	17%
	Rural	14%	16%	10%	12%
<b>Central</b>	Urban	9%	10%	14%	12%
	Rural	44%	32%	9%	20%
<b>Atlantic</b>	Urban	2%	3%	5%	4%
	Rural	20%	16%	4%	10%
<b>All Nicaragua</b>		100%	100%	100%	100%

Source: *Living Standards Measurement Survey, 2005*

The **incidence of poverty is also more than twice as high in rural areas than in urban areas:** 68% of the rural population is poor and 27% extremely poor, versus respectively 29% and 5% of the urban population. Nevertheless, high levels of extreme poverty are also found in **satellite cities of the capital Managua** (e.g. 29% in Tipitapa).

### Department estimates of poverty, 2005

Region	Department	Extreme poverty	Overall poverty
Central	Nueva Segovia	28%	69%
	Jinotega	27%	66%
	Madriz	36%	70%
	Estelí	15%	49%
	Boaco	13%	51%
	Chontales	9%	41%
	Matagalpa	30%	64%
Pacific	Chinandega	11%	54%
	León	13%	49%
	Managua	3%	19%
	Masaya	3%	33%
	Granada	5%	39%
	Carazo	13%	40%
	Rivas	14%	50%
Atlantic	Río San Juan	15%	60%
	RAAN	30%	69%
	RAAS	28%	57%

Source: Living Standards Measurement Survey, 2005

The main demographic characteristics of the poor are:

- female-headed households were no poorer than male-headed households in 2002-2005;
- **younger household heads** (below 35 years) were 9%-13% poorer;
- **education levels** were strongly and consistently associated with lower poverty: completion of primary and secondary education for the household head was associated with consumption gains of 17% and 36% respectively, compared to a household head who had not completed primary school;
- **larger households** were less well off in general, particularly those who have more children and infants, but also those with more senior and adults;

There is also a **correlation between poverty and ethnicity**. About 70% of Miskitos, which account for most indigenous peoples, are poor, while 57% of the rest of the population is considered poor<sup>30</sup>.

**The poor are over-represented in agriculture**, which offers the lowest returns among economic activities. The share of the poor in agriculture has increased from 2001 to 2005.

#### 2.3.2 - Effects of the global financial crisis on poverty

The poor have few assets and their ability to earn income depends on the sale of their labour in the labour market, or their ability to produce as self-employed farmers or artisans. These strategies will be constrained by the financial crisis, as unemployment is already increasing and producer prices are already low. Some small businesses are also affected by lower consumer demand. **Poverty is thus likely to augment** in Nicaragua with the slowdown in growth and falling commodity prices. Falling export agricultural commodity prices will cut into rural employment and incomes, thereby increasing rural poverty. Some of the urban poor may benefit as food and energy prices decrease, but others will suffer from the loss of their jobs in *maquilas* and loss of gains from small businesses.

With the projected reduced GDP growth due to the financial crisis, it is **highly unlikely that Nicaragua will reach its extreme poverty Millennium Development Goal** (9.7% by 2015 from 14.9% in 2005). The World Bank estimated that GDP growth should average 5.5% per year between 2005 and 2015 to reach this goal.

<sup>30</sup> Emergency Food Price Response Project, Food Price Crisis Response Trust Fund. Emergency Project Paper on a proposed Grant under the Global Food Crisis Response Programme. World Bank, January 2009

## 2.4 - Social assistance

### 2.4.1 - Pre-crisis social assistance programmes

The main social assistance programmes in Nicaragua are the Programme for the restitution of children and adolescents' rights (AMOR), the school feeding programme (PINE<sup>31</sup>), and other food assistance programmes for areas affected by natural disasters. Other smaller programmes include the Programme to Promote Responsible Paternity and Maternity, and the Programme to Support Poor Rural Families for specific population groups.

Many social programmes in Nicaragua are poorly targeted. The poor receive less than 50% of social assistance expenditures. While the benefits of some programmes are focused on the poorest, others, in contrast, benefit the non-poor to a greater extent. The **programmes most targeted on the poor** are<sup>32</sup>:

- adult and public primary education programmes,
- **several food programmes (WFP and school feeding programme-PINE)**,
- some Emergency Social Investment Fund (FISE<sup>33</sup>) components (social, health and education);
- rural development programmes: also have a high degree of targeting, since they are geographically located in areas with high levels of poverty.

The pension system is not well developed and poorly targeted. The elderly living in urban areas benefit much more (20%) than those in rural areas (3%). Whereas almost 20% of persons above 60 years from the top quintile enjoy coverage, coverage of non-poor retirees is double that of coverage of poor retirees (17% and 8% respectively).

The Social Protection Network (Red de Protección Social -RPS) is a conditional cash programme that was implemented from 2000 to 2006, targeting some of the poorest municipalities of the country. An impact evaluation of the first two years (2000-2002) showed a decline in stunting among children under 5 years of age, of 5 percentage points. However, the RPS was suspended by the new government in 2007.

### 2.4.2 - Effects of the global financial crisis on social assistance programmes

While needs for social assistance will increase in order to alleviate the effects of the financial crisis on households, the government budgetary capacity to expand these programmes will decrease. There is a **risk of decreased coverage** at the same time as **increased exclusion errors** related to the higher number of newly eligible persons who are falling into poverty. Indeed, the government is already taking budget tightening measures.

## 2.5 - Agriculture

### 2.5.1 - Pre-crisis agricultural situation

Nicaragua has abundant arable land and water resources and agriculture is an important component of the economy. However, only 12% of the available area is cultivated. Furthermore, most agriculture is small-scale and labour intensive. The use of agricultural inputs is generally low<sup>34</sup>: only 11% of all producers use certified seeds, 6% organic fertilizers, 37% chemical fertilizers, and 67% pesticides. Access to paved roads has the potential to increase average yields per hectare by 17% to 20%.

The average per capita production index (PCI) of basic grains (maize, rice) decreased from 41% in 1997 to 34% in 2006. Beans PCI increased from 14% to 23% during the same period, but exports also increased, thus not guaranteeing higher availability for the population.

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<sup>31</sup> Programa Integral de Nutrición Escolar (PINE)

<sup>32</sup> Nicaragua Poverty Assessment. Volume I: Main Report. Report No.39736-NI. World Bank, May 2008

<sup>33</sup> Fondo de Inversión Social de Emergencia (FISE)

<sup>34</sup> Nicaragua Poverty Assessment. Volume I: Main Report. Report No.39736-NI. World Bank, May 2008

Livestock and dairy production have seen steady growth over the past decade and have taken the greatest advantage of free trade agreements. Many export products, especially coffee, have benefited from the recent rise in international commodity prices.

**Households engaged in agricultural production** (about 1/3<sup>rd</sup> of the population) **show higher levels of poverty** (70%) and lower levels of education (93% heads of households have primary education only or less). Gaps in productivity are important: large producers display productivity levels more than 6 times higher than small producers. Urban producers, having better access to infrastructure, technology and credit, are more productive than rural producers. Large inequities in productivity are also observed across regions: lowest in the Atlantic region. Hence **small rural producers in the Atlantic region are likely to be one of the most vulnerable groups in Nicaragua**, with higher levels of poverty, low levels of education, low productivity, and limited access to infrastructure, equipment, and qualified labour.

#### 2.5.2 - Effects of the global financial crisis on agriculture

The global financial crisis may affect agriculture in Nicaragua through its second-run effects on financial institutions that provide micro-credit and other financial support to farmers to acquire land and/or inputs and the tightening of their financial conditions. Lower access to credit and inputs will **decrease yields and area cultivated and also affect agricultural labour opportunities**.

Data collected at household level in selected areas of the country have indicated that remittances especially are used to purchase agricultural inputs, as well as improve access to land and animals (see Section 3.2). The decreased frequency and sometimes amount of remittances sent by migrants are thus likely to affect the next agricultural planting seasons as well as households' capacity to raise animals. Discouragement of cultivation (particularly beans, maize and rice) is compounded by the increased cost of agricultural inputs combined with lower producer prices. As a result, **decreased food availability at household, local and national level** can be expected in 2009 and possibly beyond.

### 2.6 - Education

#### 2.6.1 - Pre-crisis education situation

Nicaragua has the **second lowest education levels in LAC** (after Guatemala). Only 77% of the population is literate, less than the average for Latin America and the Caribbean (90%). Literacy rate is higher among the youth (15-24 years), at about 84% for males and 89% for females.

Net primary enrolment rate was 87% between 2000 and 2006, similar between males and females. However, only 54%-62% of primary school entrants reached grade 5, and about 72% of the population do not attain complete secondary education, reflecting a **high degree of drop-out and the poor quality and relevance of education**. Between 2000 and 2006, net secondary enrolment rate was 40% for males and 46% for females.

There are **substantial inequities in access and quality of education** between richer and poorer households, between urban and rural areas, and between regions with lower attendance to primary schools in the **Central and Atlantic regions**. Young individuals who are poor, indigenous, and who live in households engaged in agriculture attain less than 5 years of education on average. At the same time, education outcomes are closely linked to poverty outcomes. **Living in poverty is almost certain for individuals with less than secondary education**. Estimates indicate that a Nicaraguan is expected to earn 10% higher wages for each additional year of schooling attained<sup>35</sup>.

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<sup>35</sup> Nicaragua Poverty Assessment. Volume I: Main Report. Report No.39736-NI. World Bank, May 2008

Poverty affects school participation, with many families unable to afford the direct or hidden costs. Poverty also results in child labour (some 167,000 children and adolescents)<sup>36</sup>. However, while lack of access to facilities and financial constraints constitute important reasons why poor children do not attend primary school, lack of interest, need to work (especially for boys) and family-related constraints (pregnancy, child care and domestic work, especially for girls) have risen in importance as factors explaining school non-attendance among urban children.

### 2.6.2 - Effects of the global financial crisis on education

The share of government expenditures was estimated at 15% between 1995 and 2005. Similarly as for health, there is a risk that pressure on budgetary resources results in decreased allocations for education, thus impeding action to address inequities in access and quality of education. **With no more investment to improve the quality of education and increase access to schools, half of the population will be destined to remain in poverty**<sup>37</sup>.

## 2.7 - Migration and remittances

### 2.7.1 - Pre-crisis migration patterns and remittance levels<sup>38</sup>

- *Source and destination of Nicaragua migrants*

Migration is a common feature of many Nicaraguan people. In the vast majority of the cases, it is spurred by economic reasons and the need to look for alternative income-earning opportunities. Loss of harvest is one example, especially when households affected have incurred debts for the planting season. However, employment and living conditions in the destination country are not always optimal, and there can also be a cost in terms of the migrant's family disintegration and increased burden on the members left behind (especially women).

In 2000, it was estimated that as many as 1 million Nicaraguans, **almost 20% of the population at the time, had emigrated, primarily to the USA and Costa Rica**. In general, Nicaraguans with primary education tend to go to Costa Rica, while those with secondary education tend to go to the US where returns to education are higher. A 2003 study of Costa Rica and Nicaragua suggested that about 1/3<sup>rd</sup> of remittances received in Nicaragua were actually sent from Costa Rica. The average monthly amount sent by 60% of Nicaraguans in the USA was US\$150, while 44% of Nicaraguans in Costa Rica sent US\$70. In 2008, it was estimated that 40% of families were receiving about US\$1,450 per year.

More recent data indicate that about half of rural and urban households (48% and 52% respectively) would be receiving remittances from family members living in Costa Rica (destination of 51% of the migrants) and the US (destination of 35%). Other sources<sup>39</sup> quote an even higher proportion of Nicaraguan families (70%) having a migrant abroad. Rural migrants would tend to go to Costa Rica rather than the US (respectively 80% and 12%)<sup>40</sup>.

Given the views that emigrants from Nicaragua left essentially in search of work, it may be assumed that the most destitute are those more likely to migrate. However, studies showed that Nicaraguan emigrants tended to be of working age, had greater education, and were more likely to be white-collar workers than those who did not migrate. Emigrants to Costa Rica, often thought of as primarily agricultural labourers, were also increasingly educated, urban females. Thus, **recipient families tended not to be the extremely poor, but found in the lower and middle class**.

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<sup>36</sup> Nicaragua At a Glance: UNICEF, 2007

<sup>37</sup> Nicaragua Poverty Assessment. Volume I: Main Report. Report No.39736-NI. World Bank, May 2008

<sup>38</sup> Remittance Trends in Central America. D. Agunias, Migration Information Source, Migration Policy Institute, April 2006.

<sup>39</sup> Nuevo Diario, March 2008

<sup>40</sup> "Loneliness Follows the Children of Migrants". La Prensa, Nicaragua, March 2009

Nicaraguan women were found to play a key role in facilitating and managing remittances. While about 1/4<sup>th</sup> of households are headed by a woman nation-wide, more than half of the households that received remittances were headed by a woman (52%). This result does not simply reflect the fact that men emigrate and leave women behind to care for the rest of the family, as this is typically not the case. According to the ECLAC study, in 2000 **more than half of all Nicaragua's emigrants (55%) were women.**

- *Volume of remittances to Nicaragua*

In 2005, Latin America and the Caribbean was the world's largest remittance-receiving region. With 9% of the world's population, the region received approximately 32% of the world's remittances<sup>41</sup>.

**Central Bank figures for 2008 estimate remittances at US\$818 million.** Remittances tend to be slightly lower than Honduras and much lower than other Central America countries such as Guatemala and El Salvador. However, the amount of remittances to Nicaragua kept increasing since 2001: US\$336 million in 2001, US\$376 million in 2002, US\$439 million in 2003, US\$519 million in 2004, US\$616 million in 2005, US\$697 million in 2006 and US\$740 in 2007. Remittances have become **the country's second largest incoming resource flow** (after agricultural exports)<sup>42</sup>.

These official estimates do not take into account remittances flowing through informal channels<sup>43</sup>, such as those hand-carried by migrants on visits home and in-kind (consumer goods). Given the predominance of informal mechanisms in Central America, the total amount of remittances is probably higher than the quoted figures.

Furthermore, while the US\$ value of remittances to Nicaragua is relatively modest compared to other Central America countries, the relative volume of remittances compared with other income flows, and their potential for the country's development are significant. **Remittances received in Nicaragua in 2004 represented about 18% of GDP**, 310% of Foreign Direct Investment (FDI), 127% of Official Development Assistance, and 432% of tourism receipts, highlighting their importance for the overall economy<sup>44</sup>.

Remittances also made up for the shortfall in exports of some traditional products, dwarfing coffee exports in particular, and for decreased FDI. With declining world prices for some primary products and limited access to global markets, Nicaraguans appear to be selling their labour power, and remittances represent the nation's "payment" for this "commodity".

- *Main use of remittances and impact on poverty*

According to the 2005 Living Standards Measurement Survey. **7% of urban households and 4% of rural households relied on remittances for their income.** Recipients of remittances were more frequent in urban Pacific region (9%) and urban Central region (8%).

Household surveys have shown that Central American households who receive remittances mainly use them to cover basic necessities. According to the World Bank, about 77% of remittances, on average, would be spent on immediate needs, such as food. Second frequent use was for clothing, followed by housing, education and lastly for business. Recent studies do suggest a more positive developmental role for remittances<sup>45</sup>.

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<sup>41</sup> The development impact of remittances to Nicaragua. A. Jennings, M. Clarke. Development in Practice, Volume 15, Number 5, August 2005

<sup>42</sup> Quoted in: "Loneliness Follows the Children of Migrants". La Prensa, Nicaragua, March 2009

<sup>43</sup> An International Remittance Network (IRnet) was created in July 1999 involving Nicaragua, Guatemala, El Salvador and Honduras, to facilitate the remittance flows from the United States to Latin America. It reportedly lowered remittance costs not only by generating competition but also through raising customer awareness of remittance fees.

<sup>44</sup> World Bank data in 2003 ranked Nicaragua 5<sup>th</sup> in the world in terms of relative importance of remittances compared to the Gross National Product

<sup>45</sup> For example in Guatemala by reducing the depth of poverty and in El Salvador to invest in education

In the past, remittances have been found to rise when the recipient economy suffers a downturn in activity or macroeconomic shocks due to financial crisis, natural disaster, or political conflict. Indeed, emigration from Central America and the remittances that soon followed were mainly a response to the political turmoil of the 1980s/early 1990s and to Hurricane Mitch. However, in the context of the current global financial crisis, this phenomenon may not occur as remittance senders themselves are being affected.

Furthermore, a region-wide study of the impact of remittances on poverty and inequality<sup>46</sup> conducted by the Economic Commission for Latin America and the Caribbean (ECLAC) in 2000 reported that remittances reduced poverty rates in Central America by only 2.2 percentage-point. This was strongly influenced by a 4.5 percentage-point reduction in El Salvador, while it was only 1.5 percentage-point in Nicaragua. Remittances' impact on indigence was a 2.7 percentage-point reduction (5.4 in El Salvador and only 2 in Nicaragua). Remittances' effect on income distribution was also very limited.

On the other hand, the study found that if the analysis focused only on remittance-receiving households, remittances enabled many of them to escape poverty: **39% poverty-rate reduction and 27% indigence-rate reduction among remittance-receiving households in Nicaragua**. Some interpret these results as the fact that the benefits of remittances do not accrue beyond the households receiving them, and can even contribute to inequality. Others emphasize the significant number of remittance-receiving households who managed to improve their living conditions and escape poverty. In fact, if more households received remittances, the impact on poverty would be much more pronounced. Furthermore, the spending of remittances even by a minority recipient population can result in broader public benefits, such as improved educational facilities and new technology.

The ECLAC study also showed that recipient households can eventually save up to 10% of the remittances, higher than the national saving rate average. In Nicaragua, **investment of remittances occurred in agricultural inputs or family businesses, as well as in education and health**, and thus strengthened productivity. Greater security was also gained as the total income of recipients was diversified. Emigration from Nicaragua and the remittances arising from it clearly represent a strategy of economic advancement and independence for many Nicaraguans.

#### 2.7.2 - Effects of the global financial crisis on remittances

While in the past remittances have remained stable, or even counter-cyclical, during an economic downturn in the recipient economy, this time the crisis has affected remittance source as well as recipient countries. Recent evidence suggests that in some countries the decline in remittances can be substantial, due to the slowdown of the economy in countries where migrants reside, particularly the United States. In Honduras for example, remittances declined by 4.5% in October 2008 (year-on-year). Anecdotal reports of return of migrants have also been received, due to reduced work opportunities in the usual destination countries (US, Costa Rica, El Salvador)<sup>47,48</sup>.

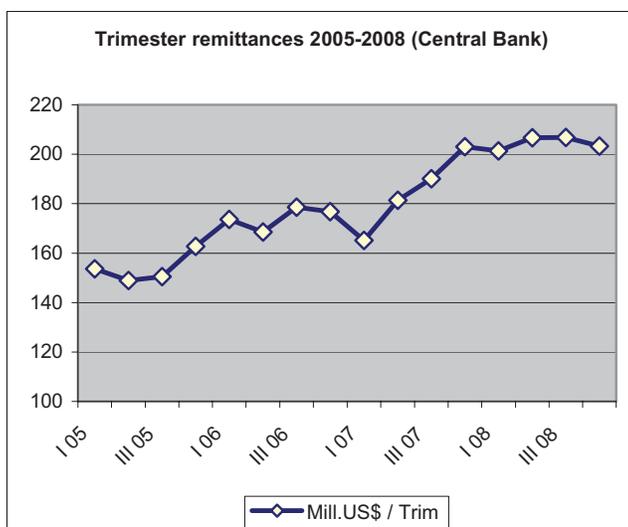
**Remittances to Nicaragua are thus expected to decrease** significantly with migrants in the US unable to maintain their previous level of transfers, but this phenomenon has yet to be confirmed with specific studies. While it is not yet clearly reflected in macroeconomic statistics, a stabilization of the flow of remittances between the 3<sup>rd</sup> trimester of 2007 and the 3<sup>rd</sup> trimester of 2008 can already be observed.

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<sup>46</sup> Uso Productivo de las Remesas Familiares y Comunitarias en Centroamérica. Mimeo LC/MEX/L.420, Comisión Económica para América Latina y el Caribe (CEPAL), 2000 – *Quoted in*: The development impact of remittances to Nicaragua. A. Jennings, M. Clarke. Development in Practice, Volume 15, Number 5, August 2005

<sup>47</sup> "The Rain Took Away All Hope". La Prensa, Nicaragua, March 2009

<sup>48</sup> "In the Countryside, the Crisis is Knocking on the Door". La Prensa, Nicaragua, March 2009



In contrast, data collected at household level in specific areas of the country have already **confirmed a decrease in the frequency and sometimes amount of remittances sent back by migrants** as a result of decreased employment opportunities (see Section 3.2 below).

### **III - HOUSEHOLD FOOD SECURITY SITUATION AND EFFECTS OF THE GLOBAL FINANCIAL CRISIS**

#### **3.1 - Pre-crisis household food security situation**

Food security in Nicaragua is more a problem of economic access than of food availability, although physical isolation (poor roads), adverse climatic conditions and absence of markets also constrain the supply of food in some areas. These factors contribute to higher levels of food insecurity among the poor and in the RAAN and RAAS regions of the country (see Box 10 for a summary of a food security survey conducted in 2005 in these areas).

##### **3.1.1 - Food availability**

Rice, maize and beans consumed by the majority of the population come mostly from the domestic production, with small amounts of maize and slightly more of rice also imported. Nicaragua is a net exporter of beans. Agricultural production is low but productivity could be largely augmented with better use of inputs, agricultural techniques (also to reduce erosion and mitigate the effects of natural disasters) and infrastructures (irrigation, roads, electricity, markets).

Kilocalorie availability per capita per day increased from 1950 kcal/cap./day in 1997 to 2290 kcal/cap./day in 2006. However, inequality at national level results in lower food availability for some groups of the population. A national survey carried out in 2004 found that **about 3/4th of the households did not obtain the recommended level of kcal/cap./day**, and half were at deficient or critical levels (less than 90% of recommended intakes). Updated estimates of 2006 indicate about 27% of the population would consume less than 95% of the kilocalorie requirements<sup>49</sup>.

<sup>49</sup> Objetivos del Desarrollo del Milenio en Nicaragua. Insumos para el Informe 2008. Ministerio de Salud (MINSA) and Organización Panamérica de la Salud (OPS), 2008

### 3.1.2 - Food consumption and food access

The main food items consumed by both the urban and rural population include **rice, beans, oil and sugar. Maize** is also important in most of the country but less so in the Atlantic regions where roots and tubers gain in relative importance<sup>50</sup>.

The vast majority of households in both rural and urban areas are net food purchasers. For this reason, **income levels determine the amount and type of food that can be accessed on the market.** In 2005, the main sources of income of the population were non-agricultural wage labour (32%), non-agricultural self-employment (17%), agricultural self-employment (15%), imputed rent (12%) and agricultural wage labour (11%). The **extreme poor were more likely to rely on agricultural wage labour (27%) and agricultural self-employment (28%),** and less likely to rely on non-agricultural wage labour (16%), non-agricultural self-employment (6%) and remittances (3% versus 7% of the non-poor).

**Sources of income according to poverty levels, 2005**

Source of income	Extreme poor	Poor	Non-poor	Average total
Agricultural wage labour	27%	14%	4%	11%
Non-agricultural wage labour	16%	28%	38%	32%
Non-agricultural self-employment	6%	13%	22%	17%
Agricultural self-employment	28%	21%	8%	15%
Imputed rent	9%	10%	14%	12%
Education transfers	7%	5%	1%	3%
In-kind/food gifts	2%	2%	1%	2%
Remittances	3%	5%	7%	6%

Source: *Living Standards Measurement Survey, 2005*

The level of income of the poor does not enable them to cover the cost of their basic food and non-food expenditures. **The extreme poor cannot afford a basic food basket** (details on the characteristics of poverty were provided in Section 2.3). Furthermore, the purchasing power of the poor has been affected by the increase of prices (for example, the cost of a basic food basket rose from US\$149 in 1998 to U\$166 in 2006, without concomittant increase of the level of minimum wages).

### 3.1.3 – Food utilization

#### • Nutrition<sup>51</sup>

Besides access to food and child feeding practices (see Box 9), poor health and lack of sanitation and education are directly linked to malnutrition in Nicaragua (see below).

The prevalence of underweight among under-5 year old children is estimated at 8%, higher than the average for Latin America and the Caribbean (5%). Between 2000 and 2006, 10% of under-5 children were underweight, including 2% severe. Wasting affected a low proportion of children (2%).

#### **Box 9 – Child feeding practices, micronutrients and immunization levels**

Between 2000 and 2006, less than 1/3<sup>rd</sup> of mothers were practicing exclusive breastfeeding of infants up to 6 months of age, and only 68% were breastfeeding and introducing complementary food at that age. Most children 6-59 months received a vitamin A supplement in 2005. The majority of households (97%) were consuming iodized salt between 2000 and 2006. In 2006, immunization coverage varied between 87% and 99%.

Stunting levels reflect long-term negative conditions in terms of food consumption, health status and public health environment. The **prevalence of stunting for children below 5 years of age** is high at **21.5%** (2005), although it declined from 27.4% in 1998. Stunting levels are **much higher in rural than urban areas.** The highest levels are found in the **Central region** (19.1% in urban areas and 32.2% in rural areas), followed by the **Atlantic region** (total 24.5% stunting). Higher prevalence of chronic malnutrition in the Central region

<sup>50</sup> Perfiles de Medios de Vida de Nicaragua. Sistema Mesoamericano de Alerta Temprana para Seguridad Alimentaria (MFEWS), Acción contra el Hambre (ACH). September 2005

<sup>51</sup> Nicaragua At a Glance: UNICEF, 2007

may be linked to the fact that it has suffered the most damage from Hurricane Mitch in 1998 and from the shock resulting from coffee price changes in 2000-2001.

**Stunting in Nicaragua is also strongly linked to poverty**<sup>52</sup>: 2.5 times higher in children in extreme poverty compared to non-poor children (31.9% versus 11.2% respectively). Among extreme poor families, stunting levels were above 45% in the Central region, the highest levels in the country, followed by the Atlantic region with 36.9% stunting among extreme poor children. However, chronic malnutrition is still unacceptably high even among non-poor households (14.6%). Addressing chronic malnutrition is a core element of the National Food and Nutrition Security Policy.

**Prevalence of stunting among under-5 children, by poverty level - 2005**

Poverty level	Severe stunting	Moderate stunting	Total stunting
Extreme poor	10.8%	21.0%	31.9%
Poor	6.7%	15.4%	22.1%
Non-poor	3.0%	8.2%	11.2%
<b>Total</b>	<b>5.0%</b>	<b>12.1%</b>	<b>17.1%</b>

Source: Living Standards Measurement Survey, 2005

• *Health situation*<sup>53</sup>

Infant mortality rate was 29 for 1,000 live births in 2006, slightly higher than the average for LAC (22 for 1,000), but in net progress compared to 1990 (52 for 1,000). Under-5 mortality rate was 36 for 1,000 live births, a decreased by about half compared to 1990 (68 for 1,000). About 12% of infants were born with a low birth weight between 1999 and 2006. Maternal mortality ratio was high, at 77 for 100,000 births in 2007, although it improved compared to 1989 (150 deaths for 100,000 births)<sup>54</sup>.

Immunization coverage is generally high, however it has tended to drop since 2004 (from 90% in the late 1990s to 85% in 2004 for polio, measles, diphtheria, pertussis, tetanus and tuberculosis). Respiratory illnesses are the most frequent disease in Nicaragua (19%), followed by chronic illnesses (12%) and diarrhea (7%). Respiratory infections and diarrhea are the primary causes of infant and child morbidity and mortality rates, especially in rural areas. Diarrhea is closely associated to the low quality of drinking water as well as limited awareness of adequate hygiene practices.

Anemia is rampant, affecting 1/3<sup>rd</sup> of children between 12-59 months, with a higher prevalence in rural than urban areas. End 2005, the estimated prevalence of adult (15-49 years) HIV infection was low, at 0.2%, representing about 7,300 infected individuals (range between 3,900 and 18,000). There were about 130,000 children (0-17 years) orphaned due to all causes in the country.

The poor in rural areas, especially in the Central and Atlantic regions, the indigenous and those engaged in agriculture have less access to health care than average, and face deficient service quality. Inequity in public health care services in Nicaragua is such that even services which are free-of-charge, like immunization and reproductive health, tend to favour the better-off rather than poor households. Out-of-pocket health expenditures represent up to 16% of non-food expenditures for the poorest quintile. Some 90% of Nicaraguans are completely uninsured. Insurance is definitely important, considering that individuals with health insurance are 56% more likely to get medical treatment when ill<sup>55</sup>.

• *Water and sanitation situation*

**Water and sanitation access rates are among the lowest for Latin American countries.**

In 2004, 79% of the population had access to an improved water source (compared to 91% on average for LAC). While 90% of households in urban areas used improved drinking water

<sup>52</sup> Nicaragua Poverty Assessment. Volume I: Main Report. Report No.39736-NI. World Bank, May 2008

<sup>53</sup> Nicaragua At a Glance: UNICEF, 2007

<sup>54</sup> Objetivos del Desarrollo del Milenio en Nicaragua. Insumos para el Informe 2008. Ministerio de Salud (MINSa) and Organización Panamericana de la Salud (OPS), 2008

<sup>55</sup> Nicaragua Poverty Assessment. Volume I: Main Report. Report No.39736-NI. World Bank, May 2008

sources, only 63% of rural households did. Less than half of the population had access to adequate sanitation facilities, especially in rural areas (34% versus 56% in urban areas). High rural migration towards Managua, especially after the 1972 earthquake, has been accompanied by the development of informal settlements and an increased demand for basic services, especially water and sanitation.

While trends in water and sanitation coverage have been stable for the urban sector, the piped water rural coverage has increased significantly over the past 30 years<sup>56</sup>. However, this progress hides **significant inequalities in terms of access to services for different income levels**, including worrying trends of **decreased coverage for the extreme poor**. While 27% of the poorest quintile have access to water services (piped water), that rate rises to 89% for the wealthiest quintile. While 72% of the poorest have latrines, more than ¼ do not have access to any sanitation services. By not having access to water and sanitation, poverty is further aggravated and productivity constrained.

There are also disparities in water coverage between urban and rural areas within regions. While in Managua 95% households enjoyed access to water in 2005, close to 90% did so in the Pacific region, but 74% in the **Center** and only 56% in the **Atlantic region**. The lack of access to a safe water source is particularly marked in rural areas in the latter two regions, with only 61% and 42% respectively. Although no dependable data exist for the **autonomous regions of RAAN and RAAS** (Atlantic coast), coverage for both rural water and sanitation services there, as well as in the **Alto Coco region**, is the lowest in the country, estimated at below 20% for water and below 30% for sanitation<sup>57</sup>. These regions present large proportions of indigenous populations.

Nicaragua's rural water and sanitation sector is characterized by: (a) low coverage levels; (b) unclear institutional responsibilities; (c) incoherent interventions; and (d) lack of adequate technologies to respond to the demands from the different market segments in rural areas<sup>58</sup>. A project recently appraised by the World Bank intends to contribute to tackle some of these issues<sup>59</sup>.

**Box 10 – WFP Household food security survey in RAAN and RAAS, 2005**

- **More than 1/3<sup>rd</sup> of households had very poor (17%) or poor (19%) food consumption**, with inadequate variety and low frequency of consumption of good quality protein and micronutrient-rich food (mostly cereals, some beans, oil/fats and sugar). Some 42% had adequate food consumption and 24% had a very diversified one (including a variety of animal products).
- **More than 2/3<sup>rd</sup> of the food consumed were purchased** (especially cereals, meat, fruits and vegetables, and to some extent beans and dairy products), 1/4<sup>th</sup> came from own production (especially tubers and plantains, and to some extent beans and dairy products), 4% from fishing/hunting and 3% from gifts. These results highlighted a **very high dependence on cash** to purchase food. However, while small shops (*pulperías*) with basic commodities were present in the majority of the sampled communities, hardly any had direct access to a market.
- Generally, **households who engaged only in daily wage labour or farming were more likely to belong to the lower expenditure groups**. Households who complemented these with other activities, employees with regular salaries and livestock keepers, were slightly better off. The 'richest' households had their own small businesses or were engaged in fishing (close to the littoral).
- On average, households allocated **60% of their monthly expenditures to food**, essentially staples (cereals, beans) as well as sugar and oil/fats. Small expenditures were incurred on fresh foods including meat, fish, dairies, fruits and vegetables. The highest shares of non-food expenditures were

<sup>56</sup> Rural Water Supply and Sanitation Project. Project Appraisal Document, Report No.42908-NI, World Bank, May 2008

<sup>57</sup> Nicaragua Water Supply and Sanitation Sector Project. Project Information Document, Appraisal Stage. Report No. AB3773, World Bank, April 2008.

<sup>58</sup> For example, simplified sewerage systems for small towns and flush latrines for communities with access to water services instead of regular latrines, resulting in systems that are abandoned after a short time.

<sup>59</sup> Rural Water and Sanitation Project. Project Appraisal Document. Report No.42908-NI, World Bank, May 2008

for health (7%), education (7%), clothing (7%) and transport (5%).

- **Food insecure households** were more likely to:
  - rely on farming on small plots with low crop diversification or on daily wage labour, and less likely to be livestock keepers or business owners, or engaged in fishing;
  - cultivate smaller plots (1.4 ha compared to 2.4 ha for households with good food consumption) and have also less crop diversification.
  - have a high dependency ratio (2 or more dependents per active member).
  - Have a low level of education of adult household members: more than 40% of adult members belonging to the very poor food consumption group had never attended school, compared to only 25% of those in the good food consumption group;
  - Live in houses build of earth material.
- Rates of wasting and stunting among under-5 children of the sampled households were similar to the averages found in other surveys: less than 2% wasting and 20% (RAAS) to 30% (RAAN) stunting. Non-food factors (water, sanitation) played an important role for malnutrition.
- The most frequent covariate **shocks** were crop pests/loss of harvest (more than half of the households), floods, strong rainfall and hurricanes, and drought in the north. Idiosyncratic (individual) shocks included thefts of harvest, theft of animals, and illness/accident of household members.
- Typical coping strategies in response to shocks involved: reducing the amount of food consumed and finding temporary works. Households' ability to withstand and recover from shocks was partly linked to their ownership of assets, including animals. However, more than half of the households reported that they had not managed to recover from their previous shock at the time of the survey, indicating a **low recovery capacity**.

### **3.2 - Effects of the global financial crisis on households' food security**

#### **3.2.1 - Objective and methodology of the survey**

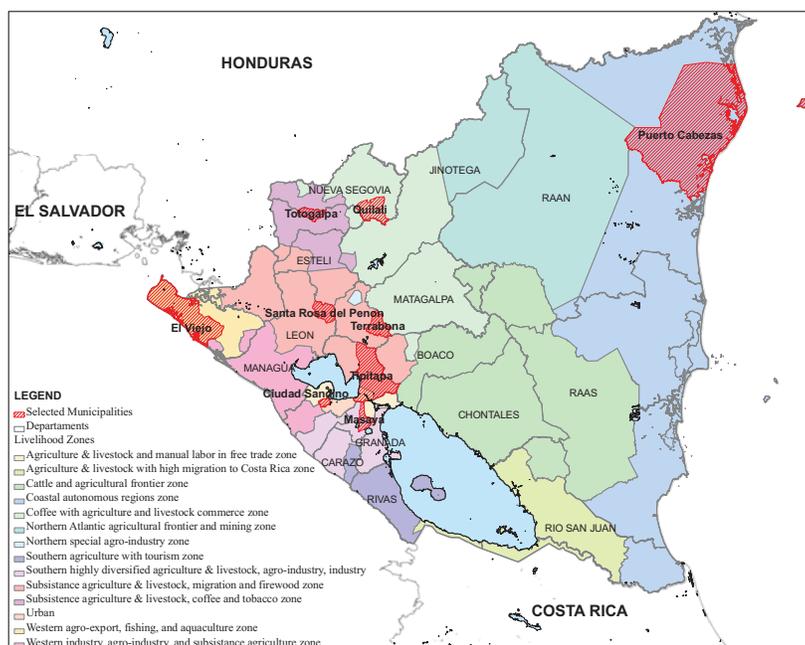
To ascertain changes in the food security situation related to the global financial crisis *at household level*, semi-structured interviews were conducted with individual households and Key Informants, as well as through Focus Group discussions (FGDs), in a purposive selection of 10 villages and 9 urban neighborhoods. The locations were distributed among the 3 regions of the country in 9 municipalities (see map and table below).

The basic criteria for selection of the villages and neighborhoods was the **expected vulnerability of the main livelihoods of the local population to the financial crisis**, including reliance on employment in *maquilas*, involvement in the production of outputs for exportation (e.g. coffee, seafood), and/or high dependence on remittances from migrants.

Within each location, households were chosen for individual interviews or FGDs according to the same criteria (vulnerability of their occupation and/or source of income to the financial crisis), and often those belonging to the poorest groups (especially in rural areas). FGDs were conducted separately with men and women. Key Informants included:

- (i) at municipality level: mayors, representatives of NGOs engaged into social development projects and religious representatives);
- (ii) at village/neighbourhood level: local authorities, heads of enterprises (e.g. construction), local religious representatives, local shop-keepers, teachers.

**Map - Location of study areas for household and Key Informant interviews and Focus Groups**



Because of the purposive selection process of locations, households and Key Informants, and the relatively low number of interviews and discussions that were conducted, it is not possible to derive statistics, or to extrapolate the results as such to non-visited areas and to other population groups. However, results and conclusions below were drawn on the basis of convergence of evidence gathered from the various locations and sources of information, giving some reassurance of consistency and reliability.

### 3.2.2 – Effects of the financial crisis on vulnerable households food consumption and access

- *Who is affected by changes of levels of income and remittances?*

The effects of the financial crisis are felt essentially in rural communities and urban neighborhoods **where a significant share of households' income depends on remittances and wages from employment in export factories** or on sales of handcraft.

A decrease in the frequency of remittances sent back, and sometimes of their amount, was reported in all communities visited. This change was attributed to less work opportunities abroad, especially in Costa Rica and El Salvador as well as in the US. Consistent answers were also received on decreased employment in *maquilas* (textile and car equipment) and other enterprises engaged into sales of export products such as seafood, including lay-off of personnel, lower number of working hours, or even closure of factories. In an area famous for the production of handicrafts to national and international tourists, lower demand and increased cost of inputs are decreasing profits.

However, **additional factors appear to affect households' income and purchasing power beyond the financial crisis**. These factors also affect households who are reliant on small-scale agriculture and less reliant on non-agricultural wages or remittances:

- high cost of agricultural inputs, combined with low producer prices and lack of access to credit, are affecting the capacity of small-scale farmers to cultivate, hence reducing their access to food for consumption and sales;
- adverse climatic factors have continued to decrease harvest in some settings;
- high cost of raw material (e.g. for construction, handcraft making or for food preparation) and fuel is decreasing profit from self-employment activities and small businesses;

- persistent local high food prices (international prices decrease not yet, or not fully, transmitted) in a context of lower households' income due to decreased remittances, wages and sales, are affecting households' capacity to purchase food.

No specific survey was conducted to assess the impact of the high food and fuel prices on household food security. However, households' status of net food consumers combined with the large share of expenditures devoted to food by poor households (2/3<sup>rd</sup> of expenditures in rural areas), suggest a **dire impact of the high food price crisis on food access**, and likely negative effects on the amount and quality of food consumed. Within 'the poor', both the rural and urban *extreme poor* faced even higher effective inflation rates and recent estimates placed the decrease in real consumption for poor urban households at around 16%<sup>60</sup>.

**Typical beneficiaries of WFP food assistance**, which are among the poorest, are impacted from a combination of direct and indirect effects of the slow down of the economy, high prices of food, fuel, inputs and raw material, low producer prices, and decreased demand for labour (see Box 11).

**Box 11 – Combined effects of the financial crisis and other economic difficulties on WFP typical beneficiaries**

Typical beneficiaries of WFP food assistance include:

- landless and very small-scale farmers;
- malnourished children;
- pregnant and lactating women at risk of malnutrition;
- school children

The financial crisis combined with other negative economic factors affect WFP beneficiaries through:

- reduced demand for agricultural labour, due to smaller areas cultivated by small producers who use to contract poor wage labourers, resulting in decreased income from agricultural wage labour;
- lack of agricultural wage income (and decreased remittances for the few who could benefit from some) prevents purchase of inputs for cultivation, further compromising their access to food and income and increasing their reliance on the market for food;
- increased indebtedness to procure inputs and food, and cover other essential needs;
- at the same time, decreased access to credit due to the lack of confidence from creditors;
- sale of assets, in particular small animals, resulting in decreased capacity to withstand future shocks and lower access to animal products for consumption and sales;
- increased reliance on wild food collection and firewood sales, and risk to become involved in illegal activities in order to procure food and income;
- increased risk of malnutrition due to poorer food consumption, including of protein- and micronutrient-rich food (e.g. animal products);
- decreased enrolment of children in school, as they are mobilized together with other family members to pursue income-earning activities.

• *Effects of changes of levels of income, remittances and households' purchasing power*

Households and Key Informants concurred that the decrease of their income (remittances, wages from *maquilas* and other export-oriented activities) and purchasing power (high food prices and cost of inputs) has resulted in:

- lower amounts and diversity of food consumed, with a diet mostly consisting of maize, beans and little oil, with drastic reduction or elimination of the consumption of dairy products and meat;
- decreased essential expenditures on health and education;
- decreased non-essential expenditures on clothing, shoes, and housing repairs or improvement;
- decreased access to credit from small shop-keepers, who restrict credit to customer households having migrants and receiving remittances;
- depletion of animals and domestic assets to generate income and reimburse debts, incurred for the trip of migrants and to local shop-keepers;

<sup>60</sup> Emergency Food Price Response Project, Food Price Crisis Response Trust Fund. Emergency Project Paper on a proposed Grant under the Global Food Crisis Response Programme. World Bank, January 2009

- loss of assets due to inability to reimburse debts (confiscation);
- decreased profit from crop sales and incentives to cultivate, due to unfavourable terms of trade;
- return to subsistence, instead of cash-oriented, agriculture;
- decreased investment in animals for consumption and sale of animal products, and as saving mechanism;
- decreased profit and/or closure of small businesses due to high producing costs and low households' demand;
- engagement into informal, low-earning activities such as petty trade and moto-taxi.

### 3.2.3 - Effects of the global financial crisis on food utilization

- *Effects of the financial crisis on nutrition*

Financial and economic crises are reducing income at household level, leading to reduction in consumption<sup>61</sup>, with negative impact on both quality and quantity of food intake. Combined with decreased use of health services because of lack of income, and continued limited access to safe water and sanitation, it is likely that the nutritional status of children will deteriorate as a result of the financial crisis, particularly among **children of the rural poor in the Central and Atlantic regions**.

Data collected at household level have confirmed a change in the diet (quantity and variety) of households whose income has decreased as a result of less remittances and/or loss of employment in factories. Although it is not possible to infer from these results that the diet of children will also be affected, there is a risk that lower purchases of milk and meat affect the diet of all household members, including **children and other vulnerable groups** such as **pregnant and lactating women, the elderly and the chronically sick**.

- *Effects of the financial crisis on health*

Previous crises in Asia and LAC have shown that economic crises had a negative impact on health and nutrition outcomes, especially infant mortality rates and increased child and maternal anemia<sup>62</sup>. Data from Demographic and Health Surveys (DHS) in 59 countries have shown that the association between infant mortality and per capita GDP is particularly pronounced for periods of large contractions in GDP.

The share of government expenditures for health was estimated at 13% between 1995 and 2005. With additional budget pressures due to the financial crisis, the share of expenditures for health may decrease, thus **delaying the implementation of necessary measures to improve access to health services for the poor especially**.

Deterioration of outcomes may be traced to reduced utilization of essential services by households. Costs of drugs and medical services usually go up during a financial crisis which might make healthcare less affordable for the poor. Devaluation of local currencies also results in an increase in the local currency price of drugs, further **impairing the ability of crisis-affected households to access health care**. Data collected at household level have indeed indicated a tendency to decrease expenditures on health as a result of lower income due to decreased remittances and/or loss of employment in factories.

- *Effects of the global financial crisis on water and sanitation*

Already before the onset of the financial crisis, it was **unlikely that Nicaragua would reach the 2015 Millennium Development Goals for water and sanitation access** unless investment levels and patterns were altered. Fiscal pressure and decreased government revenues due to the financial crisis may discourage the pursuit of investment in the water and sanitation sector. Continuous lack of access to water and sanitation will contribute to disease

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<sup>61</sup> Impact of Economic Crises on Health Outcomes and Health Financing. World Bank presentation, 14 January 2009

<sup>62</sup> Impact of Economic Crises on Health Outcomes and Health Financing. World Bank presentation, 14 January 2009

and malnutrition and thus **slow the socio-economic development of the population**. Tourism and agriculture productivity will also be affected.

#### 3.2.4 – Assistance received at local level and perspective of evolution of the situation

In a number of rural communities included in the survey, WFP was implementing one or several food aid programmes including school feeding, vulnerable group feeding and food-for-work. In some cases, local NGOs and some government programmes were also ongoing to support local agriculture, housing and health. Local committees were also set-up in certain communities. No changes in the levels of these programmes were reported in response to the crisis.

In some of the poor urban neighbourhoods visited, low-price basic food shops established by the Government in response to the high food prices crisis (see Section 4.2) were active.

Faced with lower incomes and purchasing power, most households and informants indicated that they would **increase their efforts to find**:

- work opportunities abroad, thus intensifying out-migration;
- sale opportunities for their production, including moving to other areas with their products;
- credit to enable out-migration as well as purchase of food in local shops.

#### 3.2.5 – Severity of the food security situation

Current and future coping strategies of households point towards severe negative effects on their lives and livelihoods in the short and longer-term:

- poorer diet and decreased health expenditures, in a context of already high levels of stunting, poor access to water, sanitation and health services, are **likely to impair the nutritional and health status of vulnerable household members**, particularly young children, pregnant and lactating women, the elderly and the chronically sick;
- lower cultivation and animal raising capacity and decreased incentives to do so, will **reduce future harvests and further limit food availability for self-consumption and for sales and income**;
- decreased enrolment of children in primary schools in rural areas, and in secondary/technical schools in urban areas, will **limit the development of human capital**, which is already low in most rural and poor urban areas;
- increased out-migration in a background of decreased work opportunities abroad risks to embark households in a **spiral of indebtedness**, as they may be unable to reimburse loans incurred to pay for the migrants' trip;
- increased unemployment, especially among the youth and in urban areas, are expected to result in **higher levels of delinquency**, possibly reaching severe civil disturbance in some areas and further discouraging productive activities (thefts, lootings, blockades).

Main characteristics of selected localities and number of interviews and Focus Group discussions

Region	Municipality (Department)	Neighbourhood/ Community	Area + characteristics	Department poverty level <sup>63</sup>	Households	Focus Groups	Key Informants
<b>Pacific</b>	Tipitapa (Managua)	Neighbourhood Yuri Ordoñez	<b>Urban</b> – <i>Maquilas</i> , remittances, small enterprises, trade, services	3% extreme 19% overall	6	2	2 + 1
	Ciudad Sandino (Managua)	Neighbourhood Zona 8	<b>Urban</b> – <i>Maquilas</i> , remittances, small enterprises, trade, services		11	1	2 + 1
		Neighbourhood Zona 4					
	Masaya (Masaya)	Neighbourhood Monimbó Neighbourhood San Juan	<b>Urban</b> – Tourism, small enterprises, trade, services	3% extreme 33% overall	8	3	2
<b>Central</b>	Quilali (Nueva Segovia)	Community Guaná	<b>Rural</b> - Coffee (owner), subsistence agriculture	28% extreme 69% overall	16	5	5
		Community Panalí					
	Totogalpa (Madriz)	Community Cayantu	<b>Rural</b> – Coffee (wage labour)	36% extreme 70% overall	16	3	5
		Community El Cuje					
	El Viejo (Chinandega)	Community La Chorrera	<b>Periurban</b> – Aquaculture, agriculture, small enterprises, trade, services	11% extreme 54% overall	12	1	5 + 1
		Neighbourhood Vilchez Rodriguez					
Community Buena Vista		<b>Urban + Rural</b> – Mines, remittances, subsistence agriculture	13% extreme 49% overall	16	2	3 + 1	
Terrabona (Matagalpa)	Neighbourhood Zona 1						
	Community Payacuca Community Ocotillo	<b>Rural</b> – Remittances, livestock, subsistence agriculture	30% extreme 64% overall	16	4	3 + 3	
<b>Atlantic</b>	Bilwi/ Puerto Cabeza (RAAN)	Community Tuapi	<b>Urban + Rural</b> – Fisheries, remittances, small enterprises, trade, services	30% extreme 69% overall	24	3	1 + 3
		Community Kuakuil					
		Neighbourhood El Muelle Neighbourhood Rigoberto López Pérez					
<b>TOTAL</b>	<b>9</b>	<b>19</b> (9 urban + 10 rural)		<b>125</b>	<b>24</b>	<b>28 local + 10 municipal</b>	

<sup>63</sup> Living Standards Measurement Survey, 2005

## **IV - CONCLUSION AND RECOMMENDATIONS**

### **4.1 - Conclusions on the macro- and micro-levels effects of the global financial crisis**

Macro-level analysis and simulations of additional economic shocks indicate significant negative effects of the global financial crisis on macro-economic indicators, **susceptible to affect the capacity of the government to continue to invest in social assistance, basic services and essential infrastructure** needed to alleviate poverty and chronic malnutrition. As a result, already high levels of poverty and child stunting will be further aggravated by lower households' access to health, water, sanitation and education services.

At household level, the effects of the crisis have yet to fully unfold, however a decrease in the frequency and sometimes amount of remittances sent back, as well as decreased employment opportunities in export-oriented factories are already felt and result in lower households' income. However, the economic situation of vulnerable households is not only affected by the global financial crisis but also by persisting high cost of agricultural inputs and raw material and high food prices, while producer prices are low. Adverse climatic and agro-ecological conditions compound this situation by decreasing yields and amounts produced. These various factors impair households' access to food, education and health services, even if they do not depend on remittances or non-agricultural wage employment for the main part of their income.

Current households' coping strategies and perspectives of evolution point towards **severe negative effects on households' lives and livelihoods in the short- and medium-term**, in a context of already low food security, and warrant immediate action. Some ongoing responses are expected to contribute to alleviate the loss of income and productive capacity of households, such as interventions that encourage agricultural production (see Section 4.3 below).

However, expansion of programmes particularly in the social assistance sector will be necessary to address the additional economic needs of households who have lost their access to remittances and employment due to the financial crisis. School feeding, food-and/or cash-for work activities would seem particularly appropriate to address the decrease of expenditures for education and unemployment.

### **4.2 - On-going response to the global financial crisis**

#### 4.2.1 - Nicaraguan government

- *Pre-crisis social programmes*

Nicaragua's social assistance programmes are mainly funded through the Emergency Social Investment Fund (FISE). They are underpinned by the government's long-term development and poverty reduction plans, summarized in Box 12 below.

#### **Box 12 – Nicaragua's National Development Plan 2005-09 and poverty reduction strategy**

Nicaragua's long-term development vision is set out in its **National Development Plan (NDP) 2005-2009**, which gives greater importance to economic growth than the strategy document that preceded it. The NDP is being revised by the new government that took office on January 2007, which has expressed interest in continuing efforts to improve the country's growth performance while reducing poverty through:

- generation of economic growth and employment to reduce poverty;
- development of human capital and social protection;

- development of the productive and social public infrastructure;
- governance and reform of the state<sup>64</sup>; and
- macroeconomic stability.

Key elements of the development of **Nicaragua poverty reduction strategy** include:

- a commitment to solid macroeconomic and fiscal policies;
- a healthy investment climate with growth led by the private sector as a means to create national wealth and reduce poverty;
- better harmonization of the aid and less dispersion of projects;
- expanded economic relations with new partners;
- reactivation of rural production;
- development of small and medium businesses (PYMEs) to create jobs; and
- direct social programmes.

- *Government's response to the high food prices*

The Nicaraguan Government used a range of market policies and subsidies since the fall of 2007 to minimize the negative impact of high food prices (see Box 13). It organized specific responses and interventions around two main lines: (1) protecting the most vulnerable population, and (2) increasing agricultural production.

**Box 13 - Government's strategy and interventions to mitigate the effects of the food crisis**

**1) Protection of the most vulnerable groups**

- Establishment of an overarching National Social Protection System (*Sistema Nacional de Bienestar Social* –SNBS)
- Improvement of the nutritional status of children:
  - expansion of the Integral School Nutrition Programme (*Programa Integral de Nutrición Escolar* –PINE) in the poorest areas;
  - implementation of the national plan to reduce chronic malnutrition through growth monitoring and promotion.
- Opening of food subsidized shops (CPC-Concejos del Poder ciudadano) in poor neighbourhoods to provide basic food at low cost.

**2) Increase of the agricultural production**

- Improvement of the productivity of the agricultural sector through agricultural extension and technology transfer:
  - launch in 2007 of the Agro-Seeds Programme (*Programa Agroalimentario de Semillas*-PAS)
  - improvement of the value chains for food in national and international markets, to guarantee the distribution of certified seeds to small farmers;
- Productive Food Programme (*Programa Productivo Alimentario* –PPA), to endow about 75,000 poor rural households (especially women) with access to land with a set of productive assets (animals, seeds, fertilizer etc.) through a “productive voucher” (*bono productivo*).
- Medium-term investment plan to improve the availability of high quality seeds and increase agricultural productivity.

**3) Economic measures**

- Suppression of tariffs on imported food (oats, wheat flour, beans, pasta) and reduction of tariff on imported oil;
- Strengthening of the National Basic Food Enterprise (ENABAS-Empresa Nacional de Alimentos Básicos) so that it performs efficiently its functions of collection and sale of basic grains, and facilitates price control.

<sup>64</sup> Perhaps as an illustration, the Government issued a decree in January 2009 on “Austerity and Savings”, indicating measures that governmental institutions should take to generate savings within public agencies, with the aim of withstanding the impact of the global financial crisis on the 2009 budget.

#### 4.2.2 - Donors

- *Pre-crisis programmes*

The US provided debt relief and balance-of-payment support to Nicaragua since 1990. It also assisted as part of its overall response to Hurricane Mitch from 1999 to 2001, and provided over US\$15 million in direct aid to Nicaragua to support humanitarian relief and recovery operations from the damage inflicted by Hurricane Felix in September 2007.

The 2007 loan portfolio of the WB in Nicaragua included 11 projects totaling about US\$239 million. The WB's Assistance Strategy, approved in October 2007, projected the delivery of up to US\$240 million to Nicaragua over a 5-year period (2007-2012).

- *Donors' response to the high food price crisis*

Donors' response to the high food price crisis included: (i) **interventions in agriculture** through, inter alia, support to the Productive Food Programme (FAO, Common Fund), and (ii) **support to the social sectors**:

- common work plan to implement a set of integral health services aimed at improving the nutrition and health of children under 5, pregnant and lactating women, in targeted areas;
- support to the Integral School Nutrition Programme (WFP) focusing on municipalities with highest food insecurity;
- specific interventions in times of crisis or emergency;
- formulation of a social protection operation to support the development of social protection system for the most vulnerable (Inter-American Development Bank);
- possible support to the nutrition component of the Family and Community Health Model (MOSAFIC) (European Commission and DFID).

Additional details on interventions by the World Bank and WFP, which are expected to improve directly food security and nutrition, are provided in Boxes 14 and 15 below.

#### **Box 14 – World Bank's Emergency Food Price Response Project (being considered)**

In January 2009, the WB considered a US\$7 million grant<sup>65</sup> to Nicaragua for an Emergency Food Price Response Project to help the country mitigate the impact of increased food prices by providing immediate relief to the most vulnerable groups and expanding the supply of agricultural products. The Project will not increase coverage but ensure that the services are maintained in the most vulnerable areas, in face of increase in their costs and, more broadly, in a context of overall increased costs faced by the Government<sup>66</sup>.

- 1) **Support to the ongoing Integral School Nutrition Programme (PINE)**<sup>67</sup> to ensure that poor children in the most vulnerable areas (including regions with high concentration of indigenous people) continue to receive lunch at school, maintaining their intake of nutritive food at a time of crisis and encouraging their continued attendance;
  - it will benefit approximately **263,000 preschool and primary school children** in the poorest public pre-schools and primary schools in 52 municipalities (8 Departments) classified as having high or very high food vulnerability and/or which experience severe or high poverty levels, for a period of about 100 days;
  - the number of beneficiaries represent about 25% of the total number of children enrolled

<sup>65</sup> The grant is funded through the Food Price Crisis Response Trust Fund launched by the World Bank in May 2008

<sup>66</sup> Emergency Food Price Response Project, Food Price Crisis Response Trust Fund. Emergency Project Paper on a proposed Grant under the Global Food Crisis Response Programme. World Bank, January 2009

<sup>67</sup> The Integral School Nutrition Programme (PINE) is part of the Government's National Policy for Food and Nutrition Security

in public pre-schools and primary schools;

- the Grant would finance the purchase of rice, oil, maize, other cereals and beans for school lunches providing about 30%-45% of the daily recommended intakes for children of this age<sup>68</sup>;
- the component will also support activities aimed at improving the programme and strengthening national systems to address children chronic malnutrition, a core element of the National Food and Nutrition Security Policy.

2) **Support the Agro-Seeds Program (Programa Agroalimentario de Semilla – PAS)** to support small farmers to increase their production during the next agricultural cycles;

- it will distribute a technological package of certified seeds, fertilizers, training and technical assistance to beneficiaries in the form of a credit; the loan can be reimbursed with in-kind contributions or in cash at the end of each agricultural cycle;
- approximately 31,590 small producers from areas where the agricultural cycle is most compromised (4 departments) will be assisted;
- the component also aims at contributing to greater food security and income generating opportunities for poor rural households in the selected departments.; the adoption of high quality seeds would improve productivity, export potential, and food quality of the traditional crops for which Nicaragua has clear regional competitive advantages.

A second operation, to be submitted to the WB Board for consideration end 2008, would focus on improving the availability of, and access to, high quality seeds in order to sustainably increase agricultural productivity. It would focus on basic grains (beans, maize, sorghum and rice), which are key staples in the diets of the poor most affected by the crisis, and because Nicaragua has excellent conditions to increase production of these crops.

**Box 15 – World Food Programme food security and nutrition activities**

WFP activities are concentrated in the 42 municipalities identified as being the most vulnerable to food insecurity, in the departments of Nueva Segovia, Madriz, Estelí, Jinotega, Matagalpa and the Autonomous Region in the North Atlantic Region (RAAN).

**WFP Country Programme (2008-2012)**<sup>69</sup> aims to:

- improve the nutritional status of women and children (20,000 target beneficiaries per year), alleviate hunger in the short run and increase registration and attendance at pre-schools and primary schools (16,750 target beneficiaries);
- enable poor rural households to invest in development activities to reduce their vulnerability to recurring natural disasters, and reduce migration to urban areas (1,680 target beneficiaries per year).

An **Emergency Operation (EMOP)** September 2007-March 2009 was implemented to assist 80,000 persons affected by Hurricane Felix in RAAN. It included general food distributions for 3 months followed by an early recovery programme involving Food-for-Work for 55,000 persons and supplementary feeding for 35,000 beneficiaries for another 3 months. An additional 3 months of assistance was provided to some 20,000 persons who had not recovered their livelihoods.

The **school feeding programme was extended to an additional 400,000 children** in 2008 as a response to the high food price crisis.

A **Purchase-for-Progress project** was recently approved and will benefit between 4,000 and 5,000 small-scale farmers through local procurement of about 2,000 Mt of rice, maize and beans (approximately half of the current commodity purchased locally).

<sup>68</sup> Government counterpart funds would be used to finance the administrative costs of the programme, including the transportation and distribution of the food to schools. The cost of the preparation of the meals would be born by the community, teachers and parents.

<sup>69</sup> In February 2009, Japan provided US\$5.2 million to WFP to assist food insecure households in the target departments. This amount will be used to purchase 3,955 Mt of rice:

- for lunches of preschool and primary school children (*Programa de Alimentación Escolar*);
- to complement the food rations distributed to 7-36 months infants and to pregnant and lactating mothers at nutritional risk (*Programa de Atención a Grupos Vulnerables*);
- to distribute to rural households who participate to the Food-for-Asset programme in areas prone to drought and flood and have received food assistance during the most critical times of the year, when household food stocks are reduced.

### **4.3 - Recommendations to address the effects of the financial crisis on food security**

Even though for the time being the effects of the global financial crisis are affecting mostly households who depend on remittances and on wages from employment in export-oriented factories for a large share of their income, the economic difficulties caused by the high cost of inputs, raw material, fuel and food continue to persist and impinge on the majority of the poor in Nicaragua. These crises are aggravating a situation of widespread poverty (almost half of the population), food insecurity and chronic malnutrition. These conditions, in turn, are related to basic agro-ecological and socio-economic factors, compounded by the vulnerability of Nicaragua to natural disasters.

As a result, target groups and interventions should not limit themselves to address the immediate effects of the financial crisis on a yet limited group of directly-affected households, but prevent an aggravation of poverty, food insecurity and malnutrition amongst a much larger proportion of the population.

#### **4.3.1 - Target population groups and geographical areas**

While many of **WFP typical food aid beneficiaries** are not directly affected by the financial crisis due to their low engagement into migration and non-agricultural wage labour, are affected indirectly by the general slow-down of the economy and adverse trends of input prices versus producer prices, and warrant special attention (see Box 11 above). Furthermore, many individuals will suffer directly and indirectly due to increased poverty, food insecurity and malnutrition and impaired access to basic services and infrastructures.

- *Groups most affected by poverty and food insecurity*
  - Poverty rates are above the national average for **households engaged in agricultural production** (70%). Most of the poor (66% and 46% in the 1<sup>st</sup> and 2<sup>nd</sup> quintiles) are engaged in agricultural production. The majority lives in rural areas and in the poorest regions.
  - **Small-scale rural producers** and those **relying solely on casual labour with no/little access to land in the Atlantic region** are likely to be amongst the most vulnerable groups in Nicaragua, with higher levels of poverty, low levels of education, low productivity, and limited access to infrastructure, equipment, and qualified labour.
  - **Newly unemployed in urban areas, particularly woman heads of household who have lost their job in maquilas and their market for handicraft**, will be at increased risk of falling into poverty and to engage into low-paid and potentially risky activities, such as petty trade, home-made food selling and migration.
  - The **elderly poor** are very unlikely to receive a pension. They are thus dependent on external assistance and on their remaining working capacity to obtain food and income.
  - **Individuals with less than complete secondary education** are almost certain to live in poverty.
  
- *Groups most affected by malnutrition and lack of access to basic services*
  - **Children in rural areas** and those **living in the Central and Atlantic regions** display lower than average net enrollment rates in secondary education.
  - The **poor in rural areas**, especially in the **Central and Atlantic regions**, the **indigenous** and **those engaged in agriculture** have less access to health care than average, and face deficient service quality.
  - Considering the high rates of chronic malnutrition, the **poor** and the **Central rural and Atlantic rural regions** should be prioritized.
  
- *Groups most affected by poor infrastructures*
  - The **Central and Atlantic regions** clearly fall behind in terms of access to quality roads and connectivity with the rest of the country.
  - Electricity networks are also less developed in the **Atlantic region**.

#### 4.3.2 - Interventions to address the effects of the financial crisis on food security

Even before the financial crisis, Nicaragua was **unlikely to achieve Millennium Development Goals of universal primary school enrolment, declines in chronic malnutrition, access to water, and reduction of illiteracy**. This is worrisome because of their long-term implications for the well-being of a large part of the population and for building human capital and taking advantage of income generation opportunities.

As recommended by the World Bank, a series of policy measures in the fiscal, monetary and exchange rate, and financial sector can help alleviate the effects of the global financial crisis on the economy. In parallel, measures to protect social support programmes and infrastructure spending are needed.

- *Social assistance and safety net interventions, including school feeding*

Support to safety net interventions is consistent with World Bank's recommendation that besides policy measures in the fiscal, monetary and exchange rate, and financial sector, measures to protect social support programmes and infrastructure spending are needed (see Box 16).

#### **Box 16 - World Bank's recommendations to alleviate the effects of the global financial crisis**

With the expectation of falling revenues and a scarcity of affordably-priced capital, protecting core social and infrastructure spending will become more difficult. At the same time, the likely increase in demand for social safety nets, particularly as unemployment rises, will increase the cost of existing social support programmes. However, as shown by the Asian financial crisis, neglecting core development spending during a major crisis can have large long-run costs. To mitigate the effects of the financial crisis on households' food and nutrition security, it is thus **important that countries protect or increase spending in the health, education, water and sanitation, and social protection sectors**.

In this regard, strengthening safety net programmes is essential. Transfer programmes that effectively target the poorest often result in a larger stimulus to aggregate demand, given their higher propensity to consume. Initiatives already taken in response to the fuel and food price crisis have improved the situation in some countries. There may be scope to scale up existing spending programmes in targeted ways:

- Implementation of public work programmes and/or provision of income supplements to existing programmes. Labour-intensive infrastructure projects can be effective in providing income support to the poor. Setting the wage rate relatively low ensures that the schemes are self-targeted to the poor<sup>70</sup>.
- Channeling additional resources to targeted programmes, such as targeted food distribution or school meal programmes. Expanding conditional cash transfer programmes that link cash transfers or subsidies to the receipt of health care or education can be an effective method of addressing potential losses in human capital.

On the donors' side, with needs mounting and progress to the Millennium Development Goals under increasing threat, now is not the time to decrease the quantity and quality of ODA. Indeed, under current circumstances, donors should make a concerted effort to enhance the share of assistance that is untied and provided in the form of budget support

*The Implications of the Global Financial Crisis for Low-Income Countries. International Monetary Fund, March 2009*

*Swimming Against the Tide: How Developing Countries Are Coping with the Global Crisis. Background Paper, World Bank, 13-14 March 2009*

However, targeting of social programmes to the poor in Nicaragua is low, with the exception of some social programmes (adult and primary public education, WFP food assistance, school feeding programme, some interventions of the Emergency Social Investment Fund and rural development programmes). There is margin for significantly increasing the degree to which social spending is targeted, through:

- reallocating budget to better targeted programmes, or
- reassigning specific programme budgets to poor beneficiaries, or
- extending the network of social programmes to lower income groups<sup>71</sup>.

<sup>70</sup> The going wage for unskilled agricultural labour is often a good benchmark.

Nicaragua's school feeding programme (PINE) has shown to be effective in terms of targeting and it was evaluated by the World Bank as one of the most progressive social programmes. **School feeding programmes would therefore be a valuable intervention** to address chronic and additional poverty caused by the financial crisis, considering their ability to target the poor and their demonstrated positive effects on attendance<sup>72</sup>.

- *Nutrition*

Considering the changes in households' diet, the close association between chronic malnutrition (stunting) and poverty and the expected increase of poverty due to the financial crisis, interventions to **prevent a further degradation of the nutritional status of young children** should be intensified. The World Bank's review of malnutrition and poverty issues in Nicaragua<sup>73</sup> recommends multisectoral programmes that focus on prevention and target the age group at highest risk of stunting, starting with pregnant women and continuing until the child is 2 years old, at the same time as interventions to increase access to water, sanitation and health care services (see below).

- *Infrastructures*

In a crisis context, **infrastructure projects can help put people back to work while building a foundation for future growth and productivity**. Improvements in basic infrastructure, particularly water supply, sanitation, rural roads and electricity are indeed essential to improve living conditions and productivity of the poor (Box 17). Interventions could take the form of **food-and/or cash-for-work programmes**.

- *Agriculture*

The production capacity of many households engaged in agricultural production has been affected by high inputs costs and low producer prices. Furthermore, households engaged in agricultural production in Nicaragua (about 1/3<sup>rd</sup> of the population) show higher poverty (70%) and lower education levels than average. Agricultural productivity is an important determinant of welfare for the poor. However, the country has the lowest levels of agricultural productivity among its neighbors and trading partners.

**Box 17 – Infrastructure and public work (food-for-work, cash-for-work) programmes**

Roads and bridges are a priority for the population. They are key for maintaining access to schools and health centers, particularly in the rainy season. Better roads are also associated with higher yields per hectare among producers and better access to markets for all products, hence contributing to alleviate rural poverty and increase rural productivity.

Water and sanitation access rates are among the lowest for Latin American countries and closely associated to poverty. Improved access to safe drinking water and basic sanitation is essential, being key services with direct implications for human and economic development.

There is an urgent need for investments in expanding electricity networks in rural areas, in the Atlantic region, and among vulnerable segments of the population. Low access to electricity hinders welfare, especially for households working in agriculture and who deal with perishable products (e.g. dairies), and lowers the capacity of households to run small businesses.

It is therefore **essential to improve agricultural productivity**. Interventions to facilitate access to, and encourage the greater use of, agricultural inputs should be pursued and expanded, through education, subsidization and greater accessibility of quality seeds and fertilizer. To enhance preparedness, set up of grain stores at community/sub-regional level could also be considered.

- *Education*

As earnings are directly linked to education levels, it is indispensable to **accelerate and improve the levels of school enrolment, retain students at school**, especially until

<sup>71</sup> Nicaragua Poverty Assessment. Volume I: Main Report. Report No.39736-NI. World Bank, May 2008

<sup>72</sup> The Comprehensive Food Security and Vulnerability Analysis conducted in RAAN and RAAS by WFP in 2005 indicated that 77% of households would increase their children's attendance to school if a school feeding programme was functional.

<sup>73</sup> Nicaragua Poverty Assessment. Volume I: Main Report. Report No.39736-NI. World Bank, May 2008

complete secondary, and **improve the quality of education**. Higher skills are important determinants in increasing earning among the urban self-employed and family enterprises, urban informal wage workers, wage agricultural workers and agricultural employers. Targeting the expansion of education to the rural sector would have important potential as a poverty-reduction strategy.

**School feeding and cash transfers conditional to enrolment and attendance** to schools would encourage demand, but parallel interventions to increase the offer of good quality education would also be needed.

Also, as many of the youth joining the labour force now and in the next 5 decades or so, will have accumulated very little human capital, adult education and technical training will continue to be important and needed.

- *Productivity and credit*

To sustain engagement in productive activities and small businesses, programmes that facilitate **access to credit, network and associations, land titling and land markets**, are other relevant interventions. Lack of access to credit was mentioned by most households surveyed as a key limit to their capacity to increase their cultivation and animal raising capacity in a context of economic crisis and high input prices. Box 17 summarises the current use and coverage of loans by poor households in Nicaragua.

**Box 17 – Access to, and use of loans, by poor households in Nicaragua**

With the exception of indigenous households, about 25% of households in Nicaragua received a loan in 2004. A little more than half of all loans were issued by informal creditors (e.g. family, friends, NGOs, traders). Informal credit lines and traders usually charge very high interest rates (up to 12% per month) as compared to formal credit providers such as private banks, cooperatives and other financial institutions (about 4% per month).

However, **loans among the poor account for a large share of their yearly per capita income** (11%, and 12% for the non-poor), especially for agricultural producing households (roughly 20%). In 2005, about 1/3<sup>rd</sup> of loans acquired by households were used for investment purposes. Households engaged in agriculture were more likely to use loans for investments (40%). Credit also contributes to “non-labour income” which seems to be an important determinant for being an “employer” in Nicaragua.

#### **4.4 - Monitoring of the food security situation**

With no clear sense of the length and depth of the crisis, contingency planning and enhanced monitoring of evolving economic, fiscal and household food security situation is critical.

Both macroeconomic indicators, community- and household level indicators, should be monitored:

- **At macro level**, monitoring trends of:
  - GDP per capita
  - financial reserves (duration against import requirements);
  - exchange rate against the US dollar;
  - official amounts of remittances;
  - Foreign Direct Investment;
  - Official Development Assistance;
  - Inflation and Consumer Price Index;
  - level of employment in *maquilas* and other export-oriented companies, construction and mine sectors;
  - international prices of basic staple food (maize, rice, beans, oil, sugar) and export crops (coffee, bananas).

- **At meso level** (selected villages and urban localities), monitoring of:
  - prices of basic food (maize, rice, beans, oil, sugar, meat, milk), export crops (coffee, vegetables, some fruits), live animals and fuel;
  - production and harvest levels of food and cash crops (basic grains);
  - animal health.
  - child chronic malnutrition levels (health centres or bi-yearly survey);
  - enrolment and attendance rates in primary schools (rural areas) as well as secondary and technical schools (urban areas).
  
- **At household level** (bi-monthly or trimester survey of a purposive or random sample of households in the most vulnerable areas), monitoring of trends of:
  - pattern of food consumption;
  - main sources and level of income;
  - main types and levels of expenditures;
  - out-migration and remittances;
  - cultivation pattern;
  - ownership of animals;
  - sale of productive (land, animals) and domestic assets;
  - indebtedness.