WFP

World Food Programme

Early Warning

Experiences in the Management of Disaster Risk Prevention and Mitigation

November 14-15, 2001　　　　　　　　　**Guatemala City**

WFP

The world's largest international food aid organization;

The front line UN organization fighting to eradicate world hunger;

Emergency and development projects in 80 countries world wide with more than 5,000 staff members;

In the year 2000 provided food aid to 36 million victims of natural disasters;

Has invested in the last 30 years over US$ 24 billion and more than 43 million tons of food to:

- combat hunger
- promote economic and social development, and
- provide relief assistance in emergencies across the world.

WORLD FOOD PROGRAMME

WFP's mission is:

1) to save the lives of people caught up in humanitarian crises, through **Food-For-Life**;

2) to support the most vulnerable people at the most critical times of their lives, through **Food-For-Growth**; and

3) to help the hungry poor become self-reliant and build assets, through **Food-For-Work**.

WORLD FOOD PROGRAMME

Provides food aid:

In Crisis Situations (80%)

➤ **Complex Emergencies**

➤ **Natural Disasters**

➤ **Prolonged Relief and Recovery operations**

For Development Activities (20%)

WFP Decentralization of Operations

WFP Regional Office of Latin America and the Caribbean

- **Established in Managua, Nicaragua in 1998**

- **Provides operational and technical support to WFP Country Offices in the Region**

- **WFP representation in El Salvador, Nicaragua, Honduras, Guatemala, Haiti, Cuba, Dominican Republic, Colombia, Peru, Ecuador and Bolivia**

WFP – Early Warning in Disaster Management

Summary

- **WFP – Framework for Early Warning System**

- **WFP - Vulnerability Analysis and Mapping Unit**

- **VAM Concepts**

- **VAM Standard Analytical Framework**

- **VAM and Early Warning**

- **Elements for Early Warning information**

- **Examples**

- **Collaboration and Partnership**

Advanced Knowledge -> Appropriate Response

Baseline Analysis

Food Security Baseline

WFP knowledge base

Preparedness

Logistics Capacity Assessment (LCAs)

Contingency Planning

Early Warning and Assessments

Intervention

Emergency Response

Field Monitoring

Early Warning System

WFP Early Warning System aims to:

➢ **Use all available information and tools to define areas at risk;**

➢ **Monitor the climatic and other factors determining the extent of a crisis;**

➢ **Combine the baseline knowledge with the current information to determine the number of people at risk and/or the number of people affected by a disaster.**

Early Warning System

Within WFP framework, an Early Warning System has as objectives to :

- Provide information on food security of a country exposed to a risk and alert on any potential food crisis;

- Provide information in order to effectively plan the necessary WFP response;

- Provide in a timely manner information to experts, decision makers in food aid and other humanitarian activities, and donor countries.

Early Warning Information

- **WFP Early Warning information** :

  ✓**Always relates to the food insecurity and food needs of a population group;**

  ✓**Must determine if/when food aid is required to assist the population at risk;**

  ✓**Estimates the positive impact of food aid, considering the effects of the crisis on livelihoods.**

Vulnerability Analysis And Mapping Unit
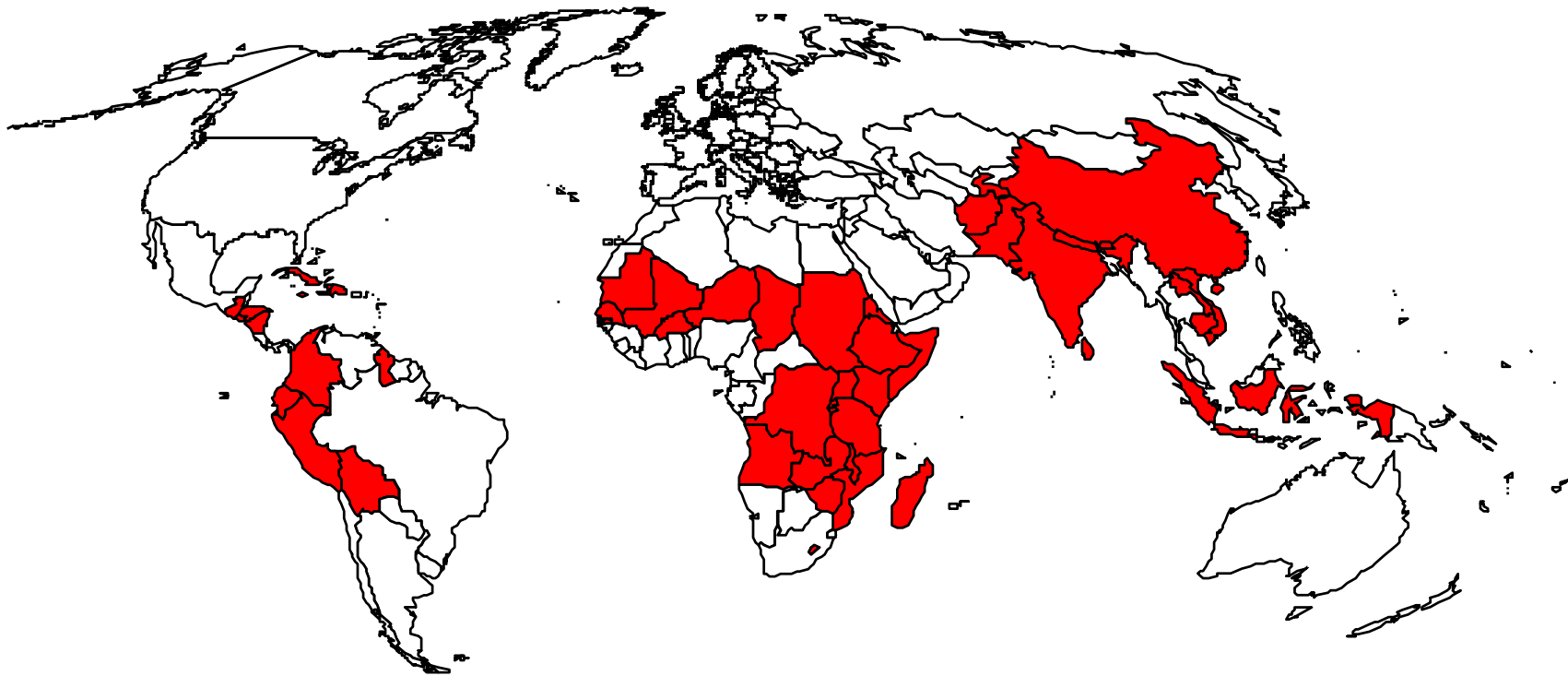
- **Vulnerability Analysis and Mapping Unit (VAM)**

  Since 1995 within WFP structure;

  Today VAM units in more than 50 countries assisted by WFP in the world;

  VAM activities in all 11 countries of the Latin America and the Caribbean Region;

  VAM Unit is responsible for providing early warning information related to vulnerability to food insecurity.

WFP : Activities VAM in the world

Types of disasters and WFP early warning capacity

- **Slow-onset Crisis (Drought)**

    ➢ **WFP VAM analysis / Strong baseline knowledge and early warning information**

- **Floods**

- **Earthquakes**

- **Hurricanes**

- **Conflicts**

Risk Analysis review / Baseline knowledge of the risk areas/ Contingency planning

VAM : Food Security-related Concepts

- ## Food Security

  "Food Security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life".

  World Food Summit 1996

- ## Vulnerability

  The probability of an acute decline in food access, or consumption, often in reference to some critical values that defines minimum levels of human well-being.

VAM : Food Security-related Concepts

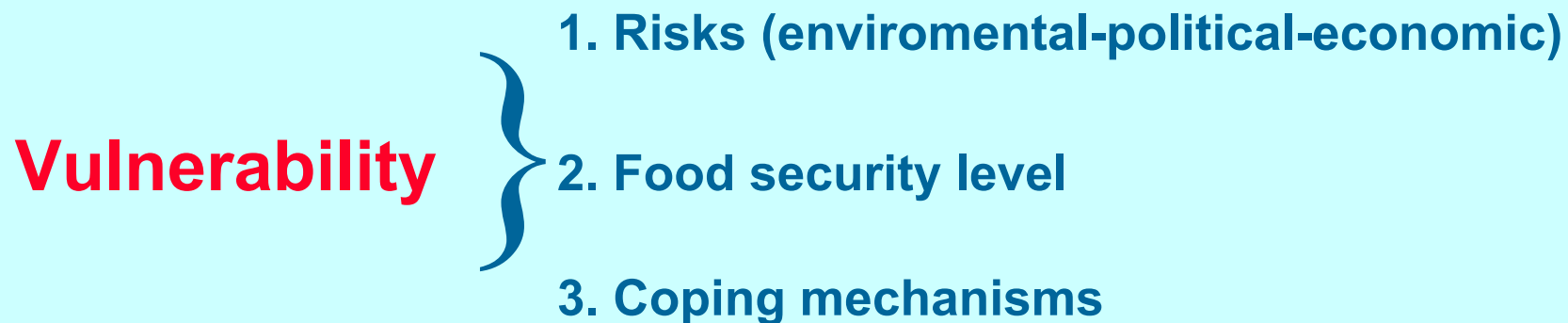- **Vulnerability is therefore summarized as follows:**

Vulnerability = Exposure to Risk + (In)Ability to Cope

VAM : Food Security-related Concepts

VAM – Components of vulnerability

Vulnerability to food security

Community level

Vulnerability

1. Risks (enviromental-political-economic)

2. Food security level

3. Coping mechanisms

VAM : Food Security-related Concepts

Food Security Dimensions

VAM analysis of food security integrates :

1. **Availability (production)**
2. **Access (market/prices, incomes, purchasing power)**
3. **Utilization (dietary habits)**

VAM Standardized Analytical Framework
(Since 2000)

SAF steps

1. Literature review /Secondary data analysis
2. National workshop
3. Vulnerability Issues Paper (VIP)
4. Participatory field survey
5. Vulnerability profiles (PVP)

SAF products

a) Geographic targeting
b) Description vulnerable areas
c) Identification and description of vulnerable groups
d) Baseline Analysis
e) Vulnerability profiles
   - Coping mechanisms
   - Causes and levels of vulnerability
   - Household tipology
   - Household food economy

VAM Standardized Analytical Framework

Through the results of the SAF process, VAM identifies :

➢ **Vulnerable areas**

> (at risk of disasters and/or with poorest and most food insecure population groups)

➢ **Vulnerable Groups Characteristics**

And provides WFP with:

➢ **Analysis of causes of vulnerability**

➢ **Recommendation on type of measures needed for an appropriate response**

Early Warning and WFP response : Questions to be answered

- ## Examples:

- What is the production of staple food in Cuba this year?

- Will Ecuador experience a drought this season?

- How were the prices of rice in Guatemala throughout the season?

- Will the hurricane "Isabel" hit Guatemala in the coming days?

- Which areas of Honduras will produce insufficient food ?

- How much food aid will be needed to assist the most vulnerable people?

Early Warning and WFP response : Questions to be answered

- **In order to provide the necessary elements needed to respond to these questions, WFP analyzes :**

  ✓**Agriculture sector**
  ✓**Markets structure and(dis)functioning**
  ✓**Climatic and agro-meteorological information**
  ✓**Satellite images Information**
  ✓**Imports/Exports of food - Stocks of food**
  ✓**Infrastructures**
  ✓**Food Aid beneficiaries of existing programs**
  ✓**Population figures/structure**
  ✓**Availability of food**
  ✓**Accessibility to food**
  ✓**Livelihoods and coping strategies of vulnerable populations**
  ✓**Nutritional status of vulnerable population**

Early Warning and WFP response : Elements of analysis

AGRICULTURE
Agro-ecological zones
Types of crops / zone
Surfaces cultivated
Conditions of crops
Pests/Diseases
Crop calendars
Duration of the season
Yields

AGROMETEOROLOGICAL INFORMATION
Rainfall performance
Water needs for agriculture production
Water Balance (FAO Methodology)

SATELLITE IMAGERY
NDVI (Vegetation Index)
RFE (Rainfall estimation)

MARKETS
Cereals Prices
Stocks
Livestock Prices
Terms of trade

LIVESTOCK
Numbers and conditions of livestock
Pasture conditions

Early Warning and WFP response : Elements of analysis

FOOD IMPORTS/EXPORTS
Quantities imported/exported
International and national prices

FOOD AID
Supplied quantities
Delivered and distributed quantities
Channel of distribution
Local market prices
Distribution
Local Purchase

FOOD STOCKS
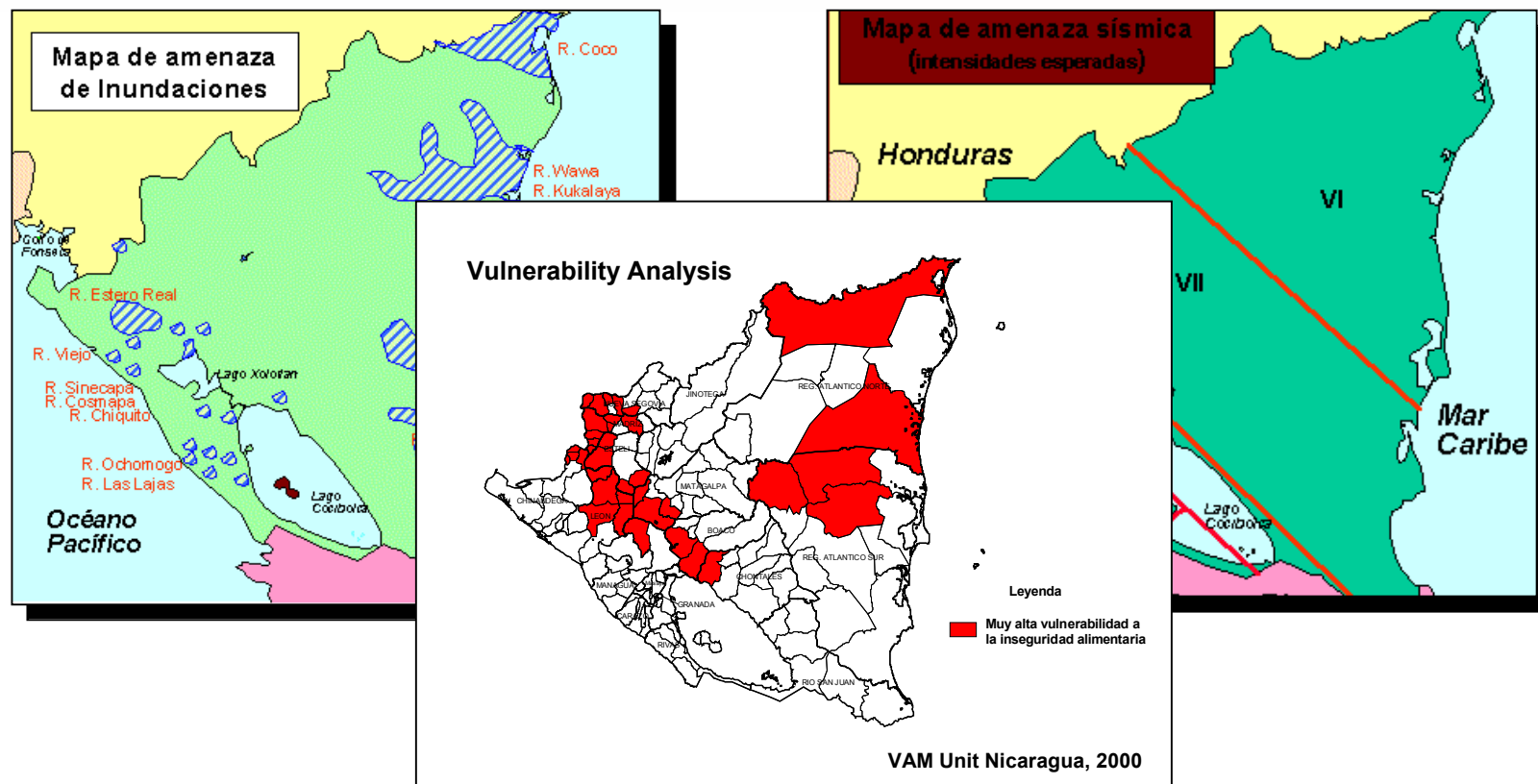Quantities stocked in the country
Food conditions
Production year

INFRASTRUCTURES
Road network and conditions
Location of main warehouses
Ports/railroad network

VULNERABLE GROUPS / LIVELIHOODS
Wealth of different groups in vulnerable areas
Income opportunities
Coping mechanisms
Capacity to respond/cope with disasters
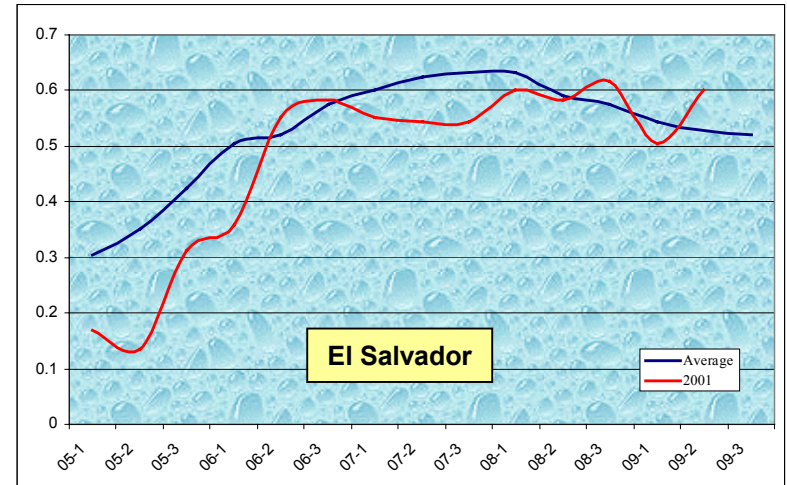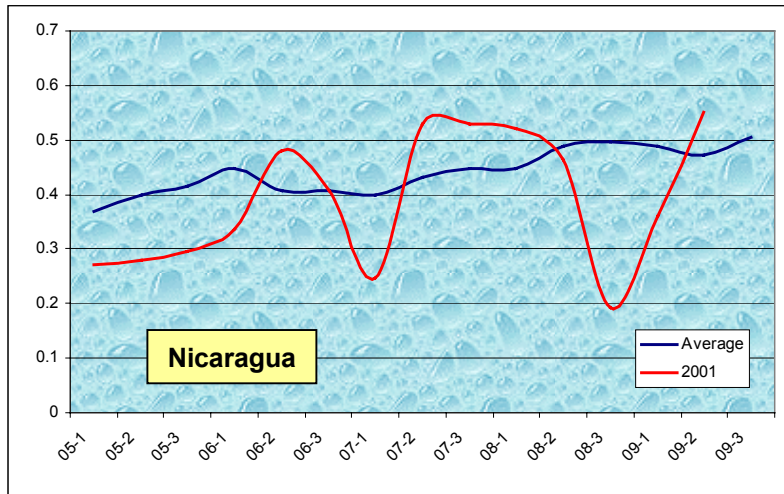Children and women nutritional status

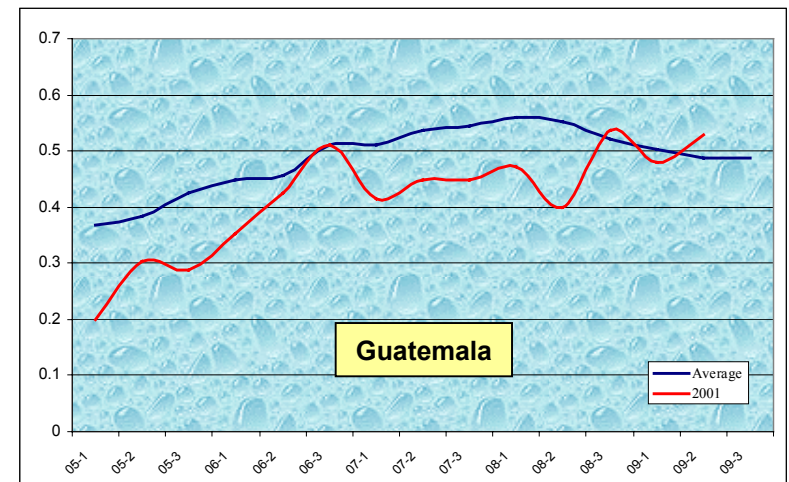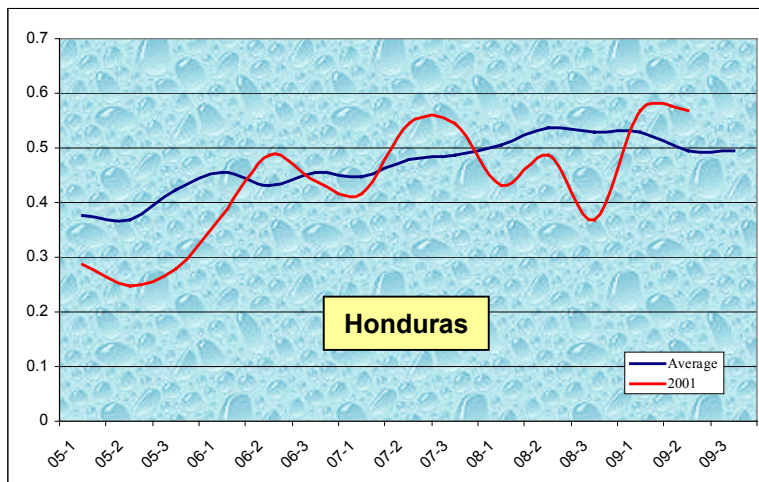# VAM : Risk and Vulnerability Analysis for Early Warning

Climatic and Risk Analysis combined with Vulnerability analysis
=> Provide necessary preliminary information for emergency response

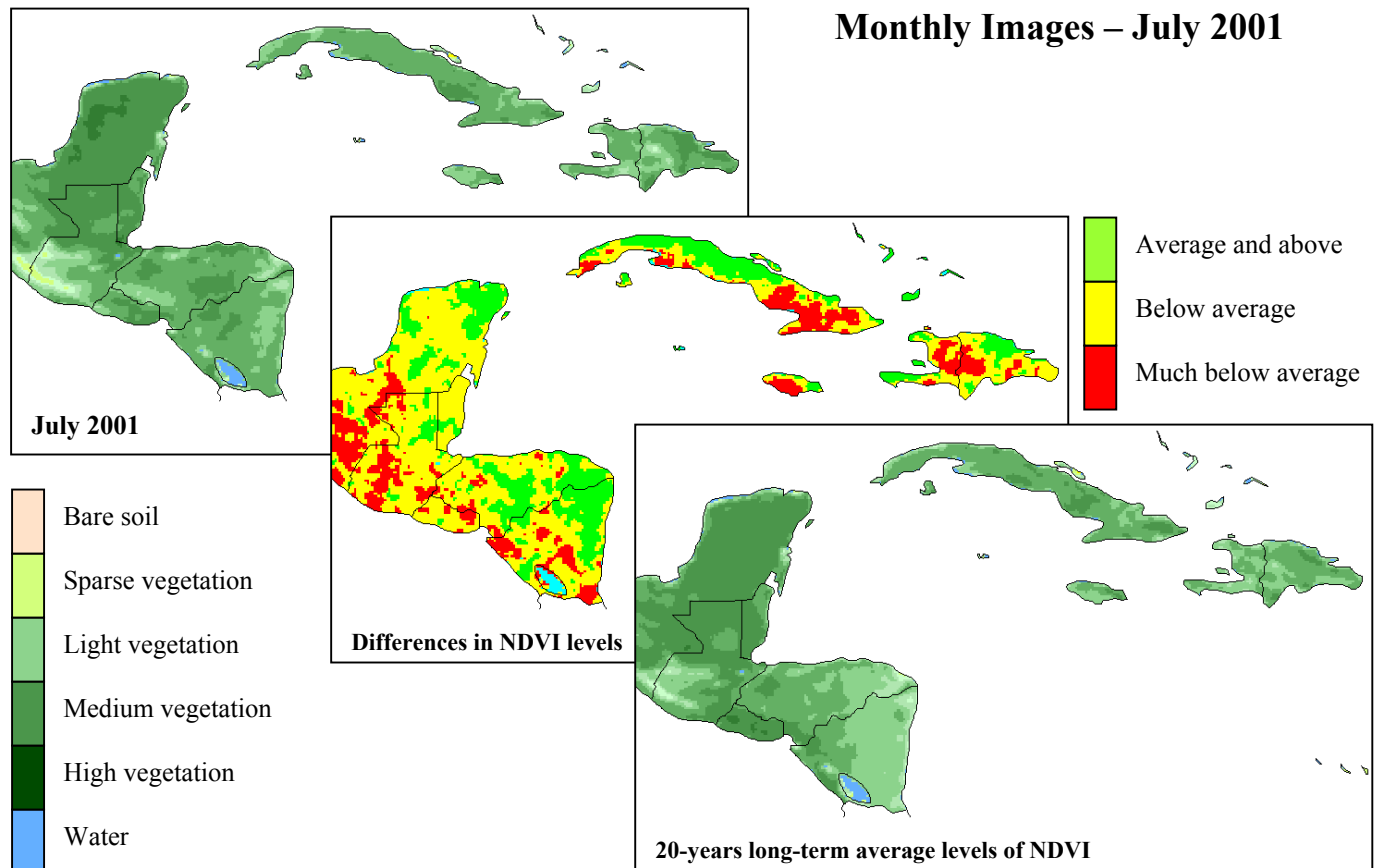# VAM : Climatic Monitoring for Early Warning

First Season 2001 (End of May – End of September) – Vegetation Index compared to 20-years long term average

VAM : Climatic Monitoring for Early Warning

Identification of geographical areas with higher climatic 'stress' during agricultural season

Monthly Images – July 2001

July 2001

Differences in NDVI levels

20-years long-term average levels of NDVI

Average and above

Below average

Much below average

Bare soil

Sparse vegetation

Light vegetation

Medium vegetation

High vegetation

Water

WFP Response : Combining information to Determine requirements

WFP-VAM Early Warning information is combined with :

➢**Field level Assessments (WFP or external)**

➢**WFP Monitoring Information**

➢**Logistics information**

➢**Contingency Planning scenarios/figures**

in order to determine the requirements of the affected areas/populations and the consequent emergency response.

Early Warning : complexity and different sources of the information

The information required for early warning within WFP framework for emergencies response comes from several sources :

Analyzed within WFP and U.N. System
> Risk and Vulnerability analysis (slow onset crisis)
> NDVI – Satellite imagery analysis (not produced but 'shaped' for WFP purposes)
> Agricultural Season monitoring
> Crop Assessments
> Field / Community Assessments
> Distribution and Beneficiaries Monitoring

From External Sources :
> Government Early Warning systems' reports
> Government Field level monitoring
> Other agencies field reports
> Specialized agencies' Forecasts/Early Warning information

Early Warning : complexity and different sources of the information

In order to strengthen its Response Capacity, WFP needs and promotes an increased collaboration among agencies and among producers/users of early warning information :

An Early Warning System can be effective only if it is the result of a joint effort among major partners :
- Governments
- Donors
- U.N. agencies and other organizations involved in food security and vulnerability
- Specialized organizations (providers for high-tech information)

At national level, the Agencies should create working units within the Government structure to:
- Coordinate and disseminate Early Warning information
- Coordinate and collaborate in Emergency Responses

Early Warning System : Complexity and partnership

Early Warning system combines

Complexity with

'Heavy' Information requirements…

Therefore

NEED FOR PARTNERSHIP!