

# GIEWS

The Global Information and  
Early Warning System on  
Food and Agriculture



Food and Agriculture Organization of the United Nations

# FOREWORD

ESTABLISHED IN THE WAKE OF THE WORLD FOOD CRISIS OF THE EARLY 1970S, THE GLOBAL INFORMATION AND EARLY WARNING SYSTEM (GIEWS) REMAINS THE LEADING SOURCE OF INFORMATION ON FOOD PRODUCTION AND FOOD SECURITY FOR EVERY COUNTRY IN THE WORLD, WHETHER OR NOT IT IS AN FAO MEMBER. IN THE PAST 25 YEARS, THE SYSTEM HAS BECOME A WORLDWIDE NETWORK WHICH INCLUDES 115 GOVERNMENTS, 61 NON-GOVERNMENTAL ORGANIZATIONS (NGOs) AND NUMEROUS TRADE, RESEARCH AND MEDIA ORGANIZATIONS. OVER THE YEARS, A UNIQUE DATABASE ON GLOBAL, REGIONAL, NATIONAL AND SUBNATIONAL FOOD SECURITY HAS BEEN MAINTAINED, REFINED AND CONTINUOUSLY UPDATED. GIEWS HAS INVESTED IN INNOVATIVE METHODS FOR COLLECTING, ANALYSING, PRESENTING AND DISSEMINATING INFORMATION, MAKING FULL USE OF THE REVOLUTION IN INFORMATION TECHNOLOGY AND THE ADVENT OF COMPUTER COMMUNICATIONS. THE SYSTEM SUPPORTS NATIONAL- AND REGIONAL-LEVEL INITIATIVES TO ENHANCE FOOD INFORMATION AND EARLY WARNING SYSTEMS.

IN A PERIOD WHEN THE NUMBER OF FOOD EMERGENCIES HAS BEEN GROWING, GIEWS CONTINUES TO PROVIDE POLICY-MAKERS AND RELIEF AGENCIES THROUGHOUT THE WORLD WITH THE MOST UP-TO-DATE AND ACCURATE INFORMATION AVAILABLE.

YET, HAVING AN EFFECTIVE EARLY WARNING SYSTEM IS NO GUARANTEE THAT INTERVENTIONS WILL FOLLOW. FAMINE, STARVATION AND MALNUTRITION CONTINUE TO HAUNT MANY PARTS OF THE WORLD. FOOD RESOURCES ARE NOT ALWAYS MOBILIZED IN SUFFICIENT VOLUME, OR THEY ARRIVE TOO LATE TO SAVE LIVES. WAR OR CIVIL STRIFE OFTEN HAMPER LOGISTIC OPERATIONS SO MUCH THAT RELIEF PROGRAMMES FAIL TO REACH THE MOST NEEDY. HOWEVER, OBJECTIVE INFORMATION AND EARLY WARNING CONTINUE TO HAVE A CRUCIAL ROLE IN ENSURING THAT TIMELY AND APPROPRIATE ACTION CAN BE TAKEN TO AVOID SUFFERING. IN THIS REGARD, GIEWS HAS REPEATEDLY DEMONSTRATED ITS CAPACITY TO ALERT THE WORLD TO EMERGING FOOD SHORTAGES.

**Jacques Diouf**  
FAO Director General

***How much food is the world producing?***

**What is happening to world food prices?**

***What is the impact of El Niño and La Niña weather events on food production?***

**How is the monsoon progressing in East Asia?**

***Will there be a drought in southern Africa this year?***

**What is the impact of floods and other weather hazards on food production?**

***What are the food security implications of civil war, economic crises or other man-made disasters?***

**Which countries are the most food-insecure?**

***Where are food interventions most needed?***

**Where are cereal surpluses available for local purchases or triangular transactions?**

SINCE ITS INCEPTION IN 1975, THE FAO GLOBAL INFORMATION AND EARLY WARNING SYSTEM ON FOOD AND AGRICULTURE (GIEWS) HAS BEEN ANSWERING QUESTIONS LIKE THOSE ABOVE. THE SYSTEM'S GOAL IS TO PROVIDE POLICY-MAKERS AND POLICY-ANALYSTS WITH THE MOST UP-TO-DATE AND ACCURATE INFORMATION AVAILABLE ON ALL ASPECTS OF FOOD SUPPLY AND DEMAND. IN DOING SO, IT PROVIDES REGULAR BULLETINS ON FOOD CROP PRODUCTION AND MARKETS AT THE GLOBAL LEVEL AND SITUATION REPORTS ON A REGIONAL AND COUNTRY-BY-COUNTRY BASIS. GIEWS WARNS OF IMMINENT FOOD CRISES, SO THAT TIMELY INTERVENTIONS CAN BE PLANNED AND SUFFERING AVOIDED.

## **To achieve this goal, the System:**

- monitors food supply and demand in all countries of the world on a continuous basis;
- compiles and analyses information on global production, stocks, trade and food aid;
- monitors export prices and developments on main grain exchanges;
- reacts to man-made or natural disasters by sending rapid evaluation missions to the countries affected and issuing Special Alerts/Reports that are quickly disseminated to the international community. The missions are often fielded jointly with WFP;
- provides up-to-date reports and information to the international community through regular publications, special reports, e-mail and its web pages on the Internet;
- answers specific requests for information, from governments, NGOs, research institutions and individuals;
- develops new approaches and technologies for early warning and makes these available to national and regional early warning systems;
- cultivates and maintains a commitment to global food information-sharing between governments, NGOs, other UN agencies, research institutions, the international press and private individuals. The System depends on the free exchange of information and supports efforts to improve data exchange and coordination.

GIEWS IS AN OPEN FORUM FOR THE EXCHANGE OF INFORMATION ON FOOD SECURITY. THE SYSTEM CONTINUALLY RECEIVES ECONOMIC, POLITICAL AND AGRICULTURAL INFORMATION FROM A WIDE VARIETY OF OFFICIAL AND UNOFFICIAL SOURCES. SINCE 1975, INSTITUTIONAL LINKS AND INFORMATION-SHARING AGREEMENTS HAVE BEEN ESTABLISHED WITH SEVERAL UN ORGANIZATIONS, 115 GOVERNMENTS, 4 REGIONAL ORGANIZATIONS AND 61 NGOS. NUMEROUS INTERNATIONAL RESEARCH INSTITUTES, NEWS SERVICES, PRIVATE SECTOR ORGANIZATIONS, AND SPECIALIZED GOVERNMENT AGENCIES ALSO COLLABORATE. A SMALL UNIT IN FAO'S ROME HEADQUARTERS IS RESPONSIBLE FOR COORDINATION WITH PARTICIPATING ORGANIZATIONS.

# GIEWS

within FAO

■ GIEWS stands for the Global Information and Early Warning System, which is located in the Commodities and Trade Division of FAO. The System maintains regular contact with FAO's Regional, Subregional and Country offices, and most of FAO's technical units for information sharing and for the development of methodologies. In recent years, the decentralization of FAO has strengthened reporting systems from the field. FAO offices worldwide provide information to and from governmental and intergovernmental authorities, compile regular situation reports and once-off communications. FAO field offices also assist in the dissemination of GIEWS publications.

■ The System's crop monitoring activities are supported by FAO's Environment and Natural Resources Service which provides real-time satellite images through FAO's Africa Real Time Environmental Monitoring Information System (ARTEMIS), and also agrometeorological assessments conducted by the Agrometeorology Group. The Emergency Centre for Locust Operations (ECLO) and the Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases (EMPRES) provide GIEWS with information on migratory pest movements and control operations on a regular basis. The System draws on analyses provided by commodity specialists, within the Commodities and Trade Division, for information on a variety of food commodities. Regular contact is also maintained with Food Security and Agricultural Projects Analysis Service. The Service is responsible for planning and backstopping FAO-supported Regional and National Early Warning and Food Information Systems.

## Information Network

Early Warning and Food Information Systems

FAO Decentralized Offices

Country Representations and Field Projects

FAO HQ Technical Units

UN and Intergovernmental Agencies

Non-Governmental Organizations

Private Trade and Industry

Rapid Assessment Missions

Government Technical Units

# FAO GIEWS

## Information Analysis

Global Food Security

National and Subnational  
Food Security

Food Outlook

Foodcrops and Shortages

Food Supply Situation  
and Crop Prospects  
in Sub-Saharan Africa

Sahel Report

Special Alerts & Reports

## Report Publication

## Report Dissemination

Internet - Electronic Mail

Postal - Facsimile

## ► GIEWS within FAO

■ The System also plays an important part in FAO's Emergency Coordination Group (ECG), which has the specific responsibility of formulating the Organization's response to emergencies. Accordingly, close working relationships have been established with the Food and Nutrition Division, the Special Relief Operations Service, which intervenes

to provide emergency assistance with agricultural inputs, and the Policy Coordinating Service which leads agricultural rehabilitation and sector-wide policy/programme work in post-disaster situations. GIEWS field assessments provide qualitative indications of agricultural emergency and rehabilitation requirements in affected countries.

# GIEWS

## and the member countries

## CAPACITY BUILDING

The main priority for effective response to food crises remains the strengthening of national institutions for food security monitoring. FAO provides technical assistance to develop the capacity of government statistical services and specialized units or "Early Warning and Food Information Systems (EWFIS)". EWFISs act as a focal point within governments for collecting, processing and communicating information on all the key variables that influence food security. There are three regional systems, operated by intergovernmental authorities, 40 national level systems operated by governments, and numerous subnational systems that are often operated by local or international NGOs. GIEWS maintains direct contact with other EWFISs worldwide. In addition to information-sharing, there is a notable exchange of views, methods and software between the global, regional, national and local EWFISs. GIEWS' computer Workstation software (see page 12) is freely available to all EWFIS.

GIEWS has been proactive in FAO's Technical Cooperation among Developing Countries (TCDC) and Technical Cooperation among Countries in Transition (TCCT) Partnership Programme, in particular in making use of regional expertise in Assessment Missions. This has provided an extremely effective way of including local knowledge in assessments of emergencies and for sharing GIEWS methods with participating experts.

■ Most FAO member countries and a few non-members are a part of GIEWS. The System has a true global coverage, though particular emphasis is placed on countries and regions where food emergencies are most likely to occur.

■ In countries without an EWFIS, GIEWS relies on a direct flow of information from the appropriate technical services within the government, on FAO field staff and on NGOs. Efforts are continually being made to cultivate and consolidate these links, but "gaps" sometimes occur in the System's information coverage, and it is necessary to dispatch specialized information-gathering missions. (See page 15).

## GIEWS and donor organizations

■ Donors of food assistance are among the main users of GIEWS, but also fulfil an important role in the provision of information as well as support for the development of the System itself. Bilateral donors are committed to informing GIEWS of all pledges and deliveries of food aid.

■ Several donors have invested in strengthening the capacity of GIEWS (see pages 12 and 17). The European Commission has supported the development of computerized systems specifically tailored for early warning analysis as well as GIEWS efforts in intensifying the monitoring of critical regions. Japan has provided GIEWS with funds for vulnerability analysis in Asia, while France has assisted in the dissemination of information in French. In addition, the United States has provided support for intensive monitoring of Kosovo, Federal Republic of Yugoslavia, in the post conflict period. Strong links have also been developed with USAID's Famine Early Warning System (FEWS) and the European Commission's Joint Research Centre for information-sharing and collaboration on methods and software design.



FAO photo



FAO/T3338/R. Faduri

## GIEWS

## and International Organizations

■ The World Food Programme (WFP) plays an integral role in GIEWS through periodic coordination meetings, joint missions and informal and official contact on a regular basis. While GIEWS publications provide an input into WFP's planning process, the System benefits from WFP's weekly field reports and other information on emergency food interventions.

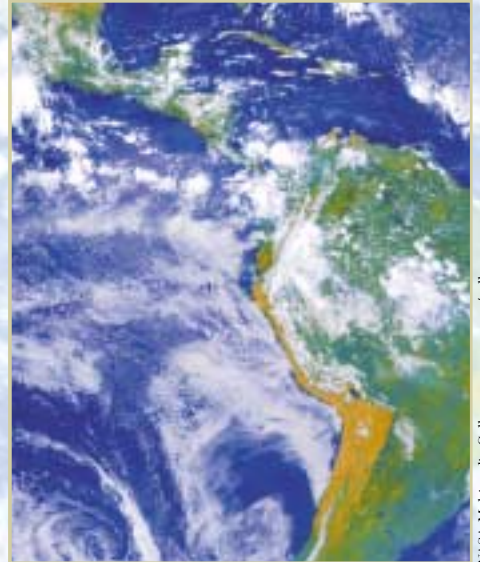
■ The System processes government requests for food aid which, above a certain threshold, require joint FAO and WFP approval. There is also close collaboration between GIEWS and WFP's Vulnerability Assessment and Mapping (VAM) Unit, particularly in sharing software, technical expertise and data.

■ GIEWS also works closely with the UN Office for the Coordination of Humanitarian Affairs (OCHA), which is the main UN coordinating body for emergency interventions. The System participates in Inter-Agency Missions, and contributes inputs to the Inter-Agency Standing Committee Working Group, as well as numerous other ad hoc and regular meetings. The system also provides information on crop monitoring and food needs which are made available on ReliefWeb - OCHA's humanitarian information website. In addition, GIEWS has developed excellent collaboration with the United Nations Development Programme (UNDP) and received support with the funding of several Crop and Food Supply Assessment Missions in recent years in response to the growing number of food emergencies.



## GIEWS and International Organizations

■ The United Nations High Commissioner for Refugees (UNHCR) supplies data on refugee numbers and location, while the World Meteorological Organization (WMO) provides climate and weather data. The International Labour Organization (ILO) provides information on unemployment and poverty levels in support of GIEWS assessments. The United Nations Children's Fund (UNICEF) often provides input and support to GIEWS missions. Information on the global market, export prices and freight rates is shared with the International Grains Council. Numerous other UN agencies and international organizations such as the Organisation for Economic Co-operation and Development (OECD), World Bank and International Monetary Fund (IMF) are also active in the System. The System exchanges data and information with the United Nations Environment Programme's Global Resource Information Database (UNEP/GRID).



## GIEWS and NGOs

■ GIEWS includes a worldwide network of Non-Governmental Organizations (NGOs) as both providers and users of information. The System acknowledges the ever-increasing prominence of NGOs in food information and early warning, particularly at the subnational level. Moreover, NGOs are often a crucial source of data in countries with civil war, where government information services have collapsed. In particular, GIEWS has successfully collaborated with NGOs such as Save the Children Fund (UK) on jointly developing risk-mapping methodologies.

## GIEWS and the media

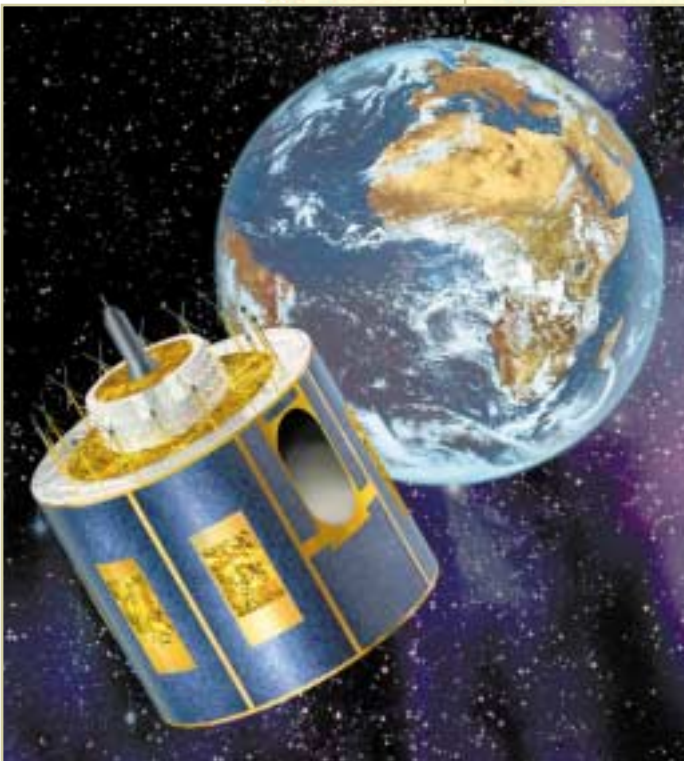
■ GIEWS reports have a high media profile and are widely cited in the international press. In addition, the media make extensive use of GIEWS Reports and Alerts posted on FAO web pages. The System also uses various local and international press sources, including on-line news services, journals and newspapers for the monitoring of food trade and food policy changes.

DRAWING ON OVER TWENTY YEARS OF TIME-SERIES STATISTICS, GIEWS OFFICERS CONTINUOUSLY UPDATE AND ANALYSE DATA ON FOOD PRODUCTION, TRADE, FOOD AID, STOCKS, CONSUMPTION AND SUBNATIONAL FOOD SECURITY. WITH FUNDS FROM THE EUROPEAN COMMISSION, GIEWS HAS DEVELOPED A COMPUTER WORKSTATION FOR DATA MANAGEMENT AND EARLY WARNING ANALYSIS, RANGING FROM CROP MONITORING USING UP-TO-DATE SATELLITE IMAGES TO ESTIMATING FOOD IMPORT REQUIREMENTS.

# Crop monitoring

■ GIEWS monitors the condition of foodcrops in all regions and countries of the world. The earliest estimates of production for standing crops are collected and revised when official data are released. Information is gathered on all factors that might influence planted area and yields. In many drought-prone countries, particularly in sub-Saharan Africa, there is a lack of continuous, reliable information on weather and crop conditions. For this reason, GIEWS, in collaboration with FAO's Africa Real Time Environmental Monitoring Information System (ARTEMIS) have established a crop monitoring system using near real-time satellite images. Data from four

satellite systems are used for monitoring the various crop seasons through out the world. Data received directly at FAO ARTEMIS from the European METEOSAT satellite are used to produce cold cloud duration (CCD) images for Africa every 10 days. These provide a proxy estimate for rainfall, as cold clouds are often responsible for rain, and high cold cloud duration over an area is indicative of significant rainfall. ARTEMIS maintains an archive of CCD images dating back to 1988, which allows GIEWS' analysts to pinpoint areas suffering from low rainfall and drought by comparing images from the current season to those from previous years or the



ESA Image Gallery, METEOSAT, www.esa.int/gallery

## Crop monitoring



FAO/17346/R. Faidhuri

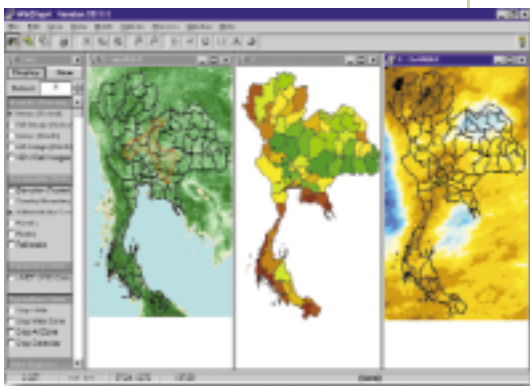
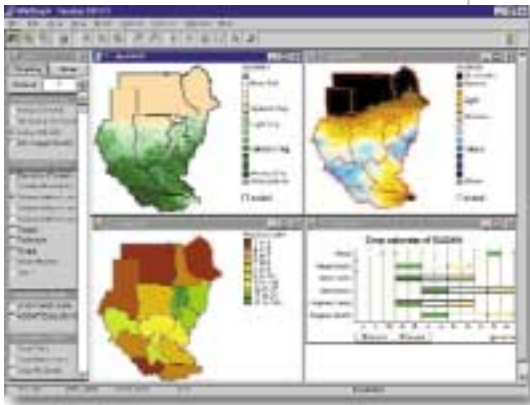
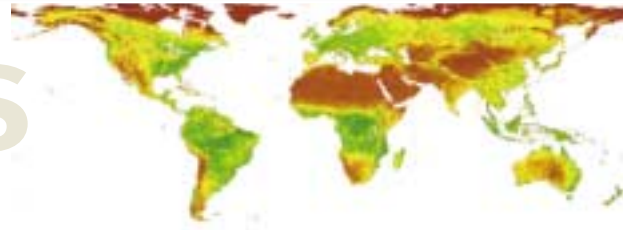
historical average. Similarly, since 1998, the Japan Meteorological Agency has been providing FAO with 10-day estimated rainfall images for Southeast Asia computed from data received from the Japanese GMS satellite. In addition to rainfall monitoring, the System makes extensive use of Normalised Difference Vegetation Index (NDVI) images that provide an indication of the vigour and extent of vegetation cover. These allow GIEWS analysts to monitor crop conditions throughout the season. Data obtained from U.S. NOAA polar orbiting satellites are processed by the U.S. NASA Goddard Space Flight Center to produce 10-day, 8-kilometer resolution vegetation images of Africa, Latin America and the Caribbean. ARTEMIS maintains an archive of these images dating back to 1981, allowing analysts to assess vegetation conditions during the current growing season as compared to the historical average or previous years. Since 1998, FAO, through collaboration with the Space Applications Institute of the European Commission's Joint Research Centre, has access to 10-day real-time vegetation images from the VEGETATION instrument on-board the SPOT-4 satellite. These cover the whole globe at 1-kilometer resolution and are suitable for crop monitoring at subnational levels.



FAO 18266/Z. Villanora

# The GIEWS

## Workstation



*The GIEWS Computer Workstation*

■ In order to maintain its diverse information base, GIEWS, with funding and support from the European Commission, developed an integrated information system known as the “GIEWS Workstation”. The Workstation consists of customized tools that include country cereal balance sheets, software for the display and analysis of maps and satellite images, and an electronic news service. The Workstation is linked to a unique reference database with pertinent information on food security at global, regional, national and subnational levels. This allows GIEWS analysts to consult various crop calendars, crop statistics, administrative maps, and demographic information. Using the Workstation’s satellite image analysis and map overlay functions, GIEWS analysts can assess rainfall and vegetation conditions in areas important for staple food crops and pastoral lands. GIEWS has encouraged the use of the Workstation and has made the system freely available to all EWFISs (see page 6) in order to encourage data standardization and exchange. The map and image display software module called WinDisp is available in English,

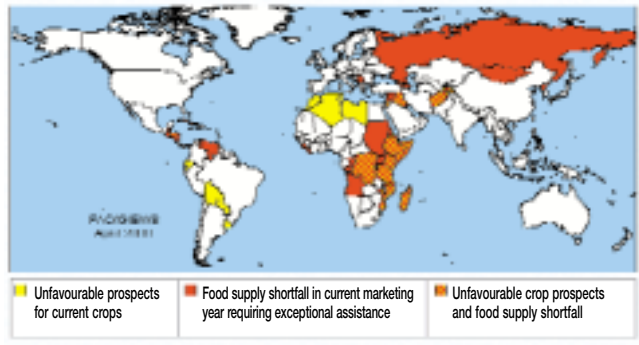
French and Spanish along with detailed software manuals. In depth tutorials have been developed to accompany WinDisp by GIEWS in collaboration with the International Institute for Aerospace Survey and Earth Sciences (ITC), The Netherlands and with the Centro de Relevamiento y Evaluación de Recursos Agrícolas y Naturales (CREAN) of the Universidad Nacional de Córdoba, Córdoba, Argentina. The System has provided the Workstation to several national and regional early warning systems, and to other services and units in house at FAO Headquarters.

# Monitoring

## food security at the global level

■ National and local food policy-makers need to know what is happening to export prices, global production, trade, stocks and demand. Regular reporting on world food situation and outlook is part of the service offered by GIEWS.

■ GIEWS estimates global food supply and demand by aggregating country-level information. World market export prices are collected on a daily and weekly basis and trading on the main international grain exchanges is monitored continuously. The System reports on major market events and on underlying trends in key variables, warning if there is a risk of a major rise in food prices. The “globalization” of trade, a growing tendency towards open trade policies rather than the protectionist policies of the past, has made countries much more susceptible to developments on the world food markets. An example of such an event was the Asian financial crisis of the late 90s that affected a number of countries. The crisis began with a sharp, significant devaluation in Thailand’s currency, followed by similar devaluation in the Republic of Korea, Indonesia and Malaysia. It was also due to inherent weaknesses in financial and banking structures. In Indonesia in 1997/1998 the negative effects of the financial crisis were exacerbated by serious, El Niño related drought that further compounded food supply problems in the country. During the crisis, GIEWS undertook a number of missions to Indonesia, with WFP, to assess the overall food supply situation.



GIEWS’ FOOD SECURITY MONITORING ACTIVITIES ARE DIVIDED INTO FOUR MAIN LEVELS: GLOBAL, REGIONAL, NATIONAL AND SUBNATIONAL.

# Monitoring food security at the national and regional level

THE SYSTEM MONITORS NATIONAL FOOD PRODUCTION, STOCKS, TRADE AND DEMAND IN ALL COUNTRIES OF THE WORLD, ON A CONTINUOUS BASIS. GIEWS ALERTS THE INTERNATIONAL COMMUNITY TO COUNTRIES WHICH FACE A SHARP RISE OR FALL IN FOOD SUPPLY OR DEMAND, WHICH NEED UNUSUALLY LARGE-SCALE FOOD ASSISTANCE OR WHICH HAVE AN EXCEPTIONAL SURPLUS OF FOOD AVAILABLE FOR DONOR PURCHASES.

FAO/19682/C. Bizzarri



Country-by-country monitoring allows GIEWS to gain an in-depth understanding of developments in global food markets. It also allows policy-analysts to gain a subregional or regional perspective on food questions.

GIEWS country monitoring concentrates on a group of some 80 “Low-Income Food-Deficit Countries (LIFDCs). These countries are often particularly vulnerable to supply fluctuations caused, for instance, by crop failure or high international cereal prices.

The Country Cereal Balance Sheet (CCBS) system is used to store country level data on all aspects of supply and demand.

At the beginning of each marketing year, the System estimates the quantities of imports, including food assistance, which will be required to maintain consumption at historic levels for all LIFDCs. The progress of commercial imports and food aid deliveries is monitored throughout the year to ensure that the right quantities arrive at the right time. Donors are informed when food assistance needs can be met by purchases on local markets or from neighbouring countries.

The main focus of the analysis is on cereals as information on other types of food is often extremely weak. However, the system is expanding its coverage of non-cereal staple foods particularly in countries where they constitute a large part of the national diet.

## RAPID ASSESSMENT MISSIONS

In some of the world's most food insecure countries, accurate food information is often lacking. While the strengthening of local capacity to collect and analyse data on food security is a priority, rapid assessment missions are sometimes required as a short-term expedient, to fill in information gaps and to provide an early forecast of production and the emerging food supply situation. In recent years an average of 30 missions were dispatched each year. GIEWS missions usually visit countries facing exceptional food emergencies or where donor-assisted local purchases are envisaged. The majority of missions are dispatched to countries where natural or warfare related disasters are known to have occurred although regular missions are launched to some of the most food insecure countries and subregions. The missions make an independent assessment of locally generated information. They check the reliability of official data by assessing crops and interviewing farmers. In recent years, the GIEWS has actively encouraged the employment of experts under FAO's TCDC/TCCT scheme for its missions. GIEWS has published "Guidelines for Crop and Food Supply Assessment Missions" which include details of "rough-and-ready" methods for food security evaluation in countries where there is little hard data. Reports are quickly reviewed and edited at headquarters. GIEWS' target is to dispatch succinct reports to the international community within ten working days of the missions' return to Rome. Staff visits and FAO Crop Assessment Missions are usually dispatched during or shortly before crop harvesting. Working with local agricultural authorities, these missions collect and compile information on the current crop situation. Joint FAO/WFP Crop and Food Supply Assessment Missions also examine other aspects of supply and demand and food assistance requirements. WFP calculates how much relief food assistance is needed by the most vulnerable people. GIEWS also participates in Inter-Agency Missions, under the auspices of the UN Office for the Coordination of Humanitarian Affairs, which make sector-by-sector estimates of relief needs in disaster-affected countries. FAO's Special Relief Operations Service and Policy Coordination Service are informed if there is a need for rapid intervention for agricultural inputs and rehabilitation and follow-up missions arranged. In some cases joint FAO/WFP Crop, Food Supply and Rehabilitation Needs Assessment Missions are undertaken with the Special Relief Operations Service in the immediate aftermath of a disaster.



# Monitoring

## food security at the subnational level



FAO/18061/M. Griffin

BOTH ACADEMICS AND PRACTITIONERS AGREE THAT NATIONAL LEVEL FOOD SUPPLY MONITORING CAN TELL ONLY PART OF THE STORY. ABUNDANT SUPPLIES AT THE NATIONAL LEVEL ARE NO GUARANTEE THAT EVERYBODY HAS ACCESS TO ENOUGH FOOD. FOR THIS REASON, GIEWS HAS SHARPENED ITS FOCUS ON SUBNATIONAL FOOD SECURITY.

■ Even in a good year, farmers in some pockets of a country may incur devastating crop losses. In times of civil strife or extensive floods, for example, some groups may experience a sharp reduction in their access to food supplies for reasons of physical exclusion from markets. Workers who lose their jobs in times of economic re-structuring may no longer be able to afford food for their families.

■ In recent years, the importance of considering subnational food markets has become still clearer. Food market and price liberalization in much of the developing world has had far reaching implications for small-holder farmers and for consumers, necessitating new approaches to food security analysis.

■ The System collects information on possible “indicators” of food crisis such as local market food supplies, retail price rises and evidence of individual and community responses to food insecurity. Such responses are sometimes referred to as “coping strategies” and include unusual sales of livestock or other assets, migration in search of food, consumption of wild foods which are not part of the normal diet and a reduction in the number and size of meals. When it is available, data on malnutrition indicators and food related morbidity and mortality is also monitored.

## ASSESSING AND MAPPING FOOD INSECURE AND VULNERABLE POPULATIONS

The World Food Summit, hosted by FAO in November 1996, unanimously adopted the Rome Declaration on World Food Security which pledges to achieve food security for all and to eradicate hunger and reduce the number of undernourished people by half by the year 2015. The World Food Summit Plan of Action calls for the establishment of food insecurity and vulnerability information and mapping systems (FIVIMS) at national and international levels in support of improved information to monitor the achievement of the World Food Summit goals. FIVIMS aims to provide accurate and timely information on the incidence, nature and causes of chronic and acute food insecurity and vulnerability. This information is vital for international aid organizations, contingency planners, relief agencies and national policy-makers in their efforts to formulate and implement policies and programmes.

GIEWS has been actively involved with vulnerability assessment and mapping since the early 1990s and has hosted two international meetings on "Methodologies for Vulnerability Assessment" as part of an EC-financed Risk Mapping project. The meetings brought together main agencies involved in vulnerability assessments, including NGOs, United Nations agencies, donors, and universities. Since 1998, GIEWS has been implementing the Government of Japan Trust Fund Project entitled "Development of a Vulnerability Information Base, Mapping and Dissemination System for Asia in Support of FIVIMS" or "FIVIMS for Asia" as a primary input to the overall FIVIMS initiative. The project seeks to assemble, analyse and disseminate information about food insecure and vulnerable populations in Asia, providing information on their geographic location and the causes behind their food insecurity and vulnerability. The project is developing mapping and data dissemination technologies in order to provide rapid access to information via the Internet. The information base and the new technologies developed by the Project will contribute directly to Global FIVIMS and the FIVIMS Common International Database that is being established within the framework of the Inter-agency Working Group on FIVIMS (IAWG-FIVIMS). At the national level, GIEWS has assisted in the design and establishment of a national level FIVIMS in Papua New Guinea. GIEWS has provided its full worldwide GIEWS Workstation database to FIVIMS.



# GIEWS

## regular reports



RAPID AND EFFECTIVE COMMUNICATIONS ARE A KEY COMPONENT OF THE SYSTEM. RECENT ADVANCES IN COMPUTER TECHNOLOGY AND THE INTERNET HAVE ENABLED GIEWS TO IMPROVE THE TIMELINESS OF PRODUCING AND DISSEMINATING REPORTS. GIEWS' CORE PUBLICATIONS ARE "FOOD OUTLOOK", "FOODCROPS AND SHORTAGES" AND "FOOD SUPPLY SITUATION AND CROP PROSPECTS IN SUB-SAHARAN AFRICA". NUMEROUS SPECIAL ALERTS AND SPECIAL REPORTS ARE ALSO PRODUCED. GIEWS' PUBLICATIONS ARE FREELY AVAILABLE TO ALL INSTITUTIONS AND INDIVIDUALS AND ARE POSTED ON THE INTERNET AT [WWW.FAO.ORG](http://WWW.FAO.ORG). THE SYSTEM ALSO RESPONDS TO SPECIFIC INFORMATION REQUESTS.

■ **"Food Outlook"** is published 5 times a year in Arabic, Chinese, English, French and Spanish, and is circulated in print copy to some 4,600 institutions and individuals. It is also available electronically on the FAO Internet site. The report provides a global perspective on the production, stocks and trade of cereals, other basic food commodities and fertilizers, through an analysis of trends and prospects. Food Outlook contains analysis and statistical information on developments in the world cereal markets, export prices and ocean freight rates. Special features are included such as the impact of El Niño on Agriculture, reviews of specific commodity markets (i.e. meat, milk, cassava, sugar, fats and oils), as well as on trends in global food aid availability and shipments, and on food emergencies around the world.

■ **"Foodcrops and Shortages"**, is issued 5 times a year in English, Chinese, French and Spanish, and distributed in hardcopy and electronically through the Internet. The report provides readers with specific country summaries on factors affecting current food production, trade, stocks and consumption.



It also provides analysis of food aid requirements, pledges and deliveries. The report contains a synthesis of the main crop and food supply developments in each subregion of the world. Special attention is paid to countries that face exceptional food shortages or where the prospects for current crops are unfavourable. In these countries, information on subnational food security indicators is also included. If emergency interventions are underway, details of the total numbers of beneficiaries and emergency food aid requirements are also provided.



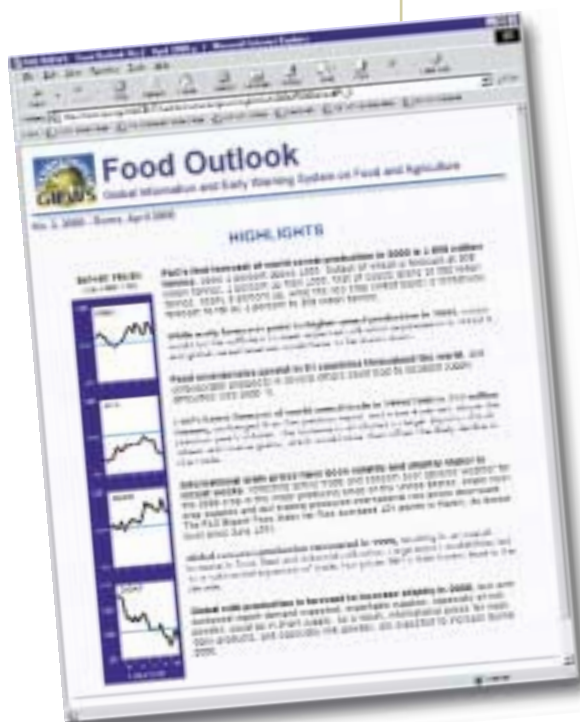
■ **“Food Supply Situation and Crop Prospects in Sub-Saharan Africa”** is issued 3 times a year in English with a summary published separately in French. It highlights the major food emergencies in the region and draws attention to the countries where the need for donor assistance is most urgent. Special features address topical issues such as the implications of civil strife and forced migration for food security in Africa, trends in donor food assistance, the migratory pest situation and

initiatives to increase food production. Statistical information and descriptive text are provided for each subregion and country. The main focus is on the current season’s crops and on food assistance requirements, but the report also addresses a wide range of questions relating to regional, national and subnational food security. The results of recent rapid assessment missions are summarized.

■ The **“Sahel Report”** is issued every month throughout the growing season, which lasts from June to October. The report describes the seasonal weather conditions, pest infestations and crop prospects in this drought-prone zone. A synthesis report is published at the end of the season containing first harvest estimates, based on a series of Crop Assessment Missions that are undertaken jointly with national and regional authorities.

■ In order to provide timely alerts to the international community, the System rapidly issues short reports on the food supply and agricultural situation in countries or subregions experiencing particular food supply difficulties. The System undertakes a number of rapid evaluation missions to affected countries and issues **“Special Reports”** on findings to the international community. In addition, the System publishes a series of **“Special Alerts”** for countries or subregions where the food crop or supply situation gives rise to particular concern. On average, about 35 “Special Alerts” and “Special Reports” are published a year. Where appropriate, they are available in English, French and Spanish. All special reports are posted on the FAO/GIEWS Internet page.

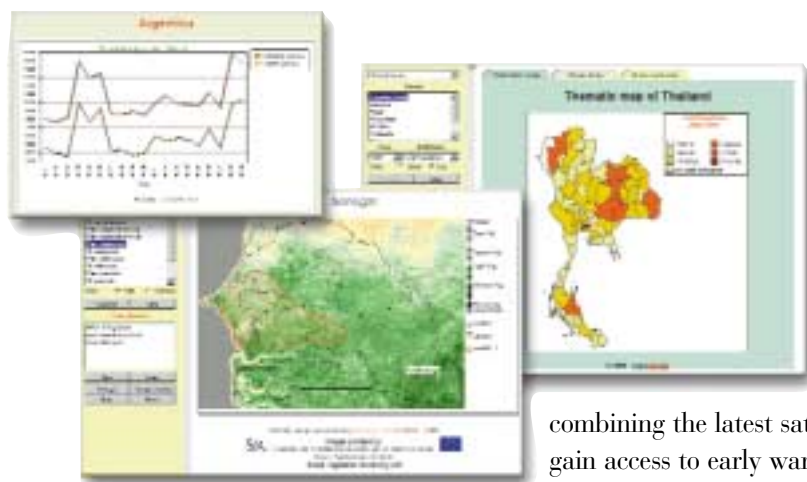
# Electronic communications



■ GIEWS has invested in electronic communications and the Internet to broaden its audience and to speed up information dissemination. The System's output is now available on the Internet through the World Wide Web. GIEWS offers access to its publications in English, French and Spanish (when available), through FAO's main Internet server. GIEWS publications can be found at <http://www.fao.org> under "Global Watch" or "Economics" or directly at <http://www.fao.org/giews>. GIEWS readers can also subscribe to a series of electronic mailing lists that automatically send out GIEWS reports by e-mail as soon as they are published.

■ GIEWS has developed an on-line database on food and agriculture for Africa with funding and support from France and the EC. The on-line database contains maps and up-to-date satellite images as well as information on crops, climate and population for many countries in Africa. In addition, up-to-date satellite images are available for Central and South America. GIEWS has made WinDisp, the GIEWS Workstation's easy to use software package for the display and analysis of satellite images, maps and associated databases freely available over the Internet. The software can be downloaded along with detailed software manuals, sample data and tutorials in English, French and Spanish.

## Electronic communications



■ GIEWS has developed a new system, with funding from the EC, known as GeoWeb which allows users to access GIEWS databases and tools over the Internet in English, French and Spanish. GeoWeb allows users to develop their own maps on demand by combining the latest satellite images and digital maps, gain access to early warning information organized by country, and to query other Internet sites for relevant information. Several options exist which enable users to view, chart and map data. GeoWeb is available at <http://geoweb.fao.org>.

## Participation in GIEWS

ANYONE WITH AN ACTIVE INTEREST IN FOOD INFORMATION AND EARLY WARNING IS FREE TO PARTICIPATE IN GIEWS.

■ To participate in the System, participants must share its goals and undertake to assist, to the best of their ability, in its development. GIEWS depends on its participants for all aspects of its operations. In return for free access to GIEWS information resources, your cooperation is requested in the following areas:

- ▶ the supply of up-to-date information, both official and unofficial, on all aspects of food production and food security;
- ▶ development of widely compatible and open-access databases on food related issues;
- ▶ open exchange of analytical approaches, to enrich our understanding of food security at the global, regional, national and subnational level;
- ▶ open exchange of software of relevance to food information and early warning activities.

## Countries and Regional Organizations Participating in the Global Information and Early Warning System on Food and Agriculture

ALADI (Latin America Integration Organization)	Cyprus	Italy	Saudi Arabia
Algeria	Czech Rep.	Japan	Senegal
Angola	Denmark	Jordan	S.I.E.C.A. (Permanent Secretariat of the General Treaty on Central American Economic Integration)
Argentina	Ecuador	Kenya	Sierra Leone
Australia	EC	Korea, Rep. of	Singapore
Austria	Egypt	Lebanon	Somalia
Bahamas	El Salvador	Liberia	Spain
Bahrain	Estonia	Lithuania	Sri Lanka
Bangladesh	Ethiopia	Luxembourg	Sudan
Belgium	Fiji	Madagascar	Swaziland
Benin	Finland	Malawi	Sweden
Bolivia	France	Malaysia	Switzerland
Brazil	Gabon	Mali	Syrian Arab Republic
Burkina Faso	Germany	Malta	Tanzania, United Rep. of
Cameroon	Ghana	Mauritius	Thailand
Canada	Greece	Mexico	Togo
Cape Verde	Guatemala	Mongolia	Trinidad and Tobago
Chad	Guinea	Morocco	Tunisia
Chile	Guinea-Bissau	Myanmar	Turkey
China	Guyana	Nepal	United Arab Emirates
Colombia	Haiti	Netherlands	United Kingdom
Congo, Dem. Rep. of	Honduras	New Zealand	United States of America
Costa Rica	Hungary	Nicaragua	Uruguay
Côte d'Ivoire	India	Niger	Venezuela
Croatia	Indonesia	Nigeria	Viet Nam
Cuba	Iran, Islamic Rep. of	Norway	Yemen
	Iraq	Pakistan	Zambia
	Ireland	Panama	Zimbabwe
	Israel	Paraguay	
		Peru	
		Philippines	
		Portugal	
		Qatar	
		Romania	
		Russian Federation	
		Samoa	

*All the above countries are members of FAO except Singapore and the Russian Federation.*

- Action Contre la Faim (*France*)
- Africa Emergency Aid of Canada
- Afrique Verte  
(*France, Burkina Faso, Mali, Niger*)
- Agir Ici (*France*)
- Association Européenne pour le Développement et la Santé (*Belgium*)
- Association Française des Volontaires du Progrès (*France*)
- American Friends Service Committee (*USA*)
- Australian Council of Overseas Aid
- Australian Freedom From Hunger Campaign
- Austrian Relief Committee for Afghan Refugees (*Pakistan*)
- Bahà'i International Community (*Switzerland*)
- CAFOD (*UK*)
- Canadian Council for International Cooperation
- Canadian Foodgrains Bank
- CARE (*Canada*)
- CARE International (*USA*)
- CARE Australia (*Australia*)
- Caritas Internationalis (*Italy*)
- Caritas Neerlandica (*The Netherlands*)
- Catholic Relief Services (*USA*)
- CEBEMO (*The Netherlands*)
- Centre de Recherche et d'Information pour le Développement (*France*)
- Centro Internazionale Crocevia (*Italy*)
- Christian Aid (*UK*)
- Church World Service (*USA*)
- CIEPAC (*France*)
- CIMADE (*France*)
- Collectif Stratégies Alimentaires (*Belgium*)
- Le Comité Catholique Contre la Faim et pour le Développement (*France*)
- Comité Français pour la Solidarité Internationale (*France*)
- Comité International de la Croix-Rouge (*Switzerland*)

## **Non-Governmental Organizations cooperating in the Global Information and Early Warning System on Food and Agriculture**

- Frères des Hommes (*France/Belgium*)
- Groupe de Recherche et de Réalisation pour le Développement Rural (*France*)
- Handicap International (*France*)
- IBISCUS (*France*)
- Institut de Recherche et d'Application des Méthodes, (*France*)
- Institut Panos (*France*)
- Institute on Hunger & Development (*USA*)
- International Childcare Trust (*UK*)
- Inter-Réseaux Développement Rural (*France*)
- IOW (Ecumenical Concern on World Hunger) (*The Netherlands*)
- I.R.E.D. (*Switzerland*)
- Licross/Volags (*Switzerland*)
- Lutheran World Federation (*Switzerland*)
- Médecins du Monde (*France*)
- Médecins sans Frontières (*Belgium, France*)
- Misereor (*Germany*)
- Norwegian Church Aid (*Norway*)
- Norwegian Red Cross (*Norway*)
- OXFAM (*UK*)
- Peuples Solidaires (*France*)
- Réseau Stratégies Alimentaires (*France*)
- Save the Children Fund (*UK*)
- Solidarités Agricoles et Alimentaires (*France*)
- SOS Faim (*Belgium*)
- Terre des Hommes (*France*)
- TROCAIRE (*Ireland*)
- World Council of Churches (*Switzerland*)
- World Vision of Australia
- World Vision International (*USA*)
- Zimbabwe Freedom from Hunger Campaign (*Zimbabwe*)



**Global Information and Early Warning System on Food and Agriculture**

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GIEWS publications are available on the World Wide Web at [www.fao.org/giews](http://www.fao.org/giews)  
or under **Economics** or **Global Watch** at [www.fao.org](http://www.fao.org)