

Food Security Analysis Tools

Overview

The Food Security Analytical Toolkit pools together tools from various sectors such as nutrition, early warning, crop forecasting, statistics, etc. In this way it helps analysts understand the broader picture of food security in their countries and regions. Extensive training in using the tools was also given at the national level.



The Global Information and Early Warning System (GIEWS) Workstation

<http://www.foodsec.org/workstation/>

The GIEWS workstation is a GIS mapping tool that brings together a wide variety of food security data from different sources. It also facilitates the integration and exchange of information by promoting the use of common standards.

The workstation uses "open source" technology. This means that it can be distributed free-of-charge and that countries can easily adapt it to their own needs.

A Networked Approach for Sharing Information

A new version of the workstation was released in 2008. It uses the latest technology to promote a networked approach for sharing information. Indeed, users all over the world not only enrich the workstation by uploading their own data, they can also contribute ideas and new tools.

The processes that went into building the network have been equally important. Much effort has gone into harmonizing data and standards to make it easy to exchange data across borders or even among institutions in the same country. The dialogue behind this process have helped build very strong links to national institutions.

The GIEWS Workstation in Action in Armenia

A practical example of how the GIEWS Workstation is being used comes from Armenia - where food and fuel prices have been soaring. In order to keep track of prices and inform policy makers, the Armenian National Statistical Service monitors the cost of 200 food items all over the country every 10 days. The Ministry of Agriculture and the Meteorological service also collect data on food production and the weather. They use the GIEWS Workstation to pool together all their data and share their analysis.

More Information

Sneak Preview of the New Workstation

<http://lprapp08.fao.org:8080/fenix-web/org.fao.fenix.web.modules.core.Fenix/Fenix.html>

Related Articles

Keeping Tabs on Soaring Prices: Using the GIEWS Workstation in Armenia (October 2008)

http://www.foodsec.org/news_08_06.htm

Unveiling the New Global Information and Early Warning System (GIEWS) Workstation

http://www.foodsec.org/news_08_09.htm



The Global Administrative Unit Layers (GAUL)

http://www.foodsec.org/tools_gaul.htm

The highly innovative Global Administrative Unit Layers (GAUL) classification system, developed in the context of the GIEWS Workstation, allows many types of data to be stored at the provincial level. This is extremely important, as statistics and data at the national level can hide the fact that there may be huge differences inside countries.

The Global Administrative Unit Layers (GAUL) project's main objectives are to:

- promote a unified coding system for provincial level data thereby reducing maintenance efforts;
- overcome the fragmentation of the global data set; and
- keeps track of administrative units that has been changed, added or dismissed in the past for political reasons.

GAUL responds to the need of several national and international agencies to maintain a consistent global layer of administrative units that comply with the UN Cartographic Unit's standards. GAUL has been widely adopted as an international standard for storing administrative level data.

More Information

http://www.foodsec.org/tools_gaul.htm



CountrySTAT

http://www.foodsec.org/tools_stats_01.htm

CountrySTAT is an internet based "one-stop shop" for national food, agriculture and nutrition statistics. It is usually installed in and managed by national statistics offices and draws together statistics from various national sources. It is fully owned and managed by partner countries. Policy makers and analysts are its target users.

CountrySTAT is changing the future of handling and publishing food and agriculture statistics by pulling national statistical data producers together under one umbrella; Policy makers and analysts, who are constantly in need of reliable statistical information and primary analysis, can thus go to a central place for their data requirements and read it in their national language.

Because CountrySTAT fully complies with international standards and classifications, national statistics can be fully integrated with statistics from other national and international databases - including FAOSTAT.

CountrySTAT Statistical Frameworks and Systems have been introduced in the following EC-FAO programme countries: Ethiopia, Malawi, Mozambique, Sudan, and the West Bank and Gaza.

Advanced Administrator Training

In December 2007, the EC-FAO programme funded a CountrySTAT Advanced Administrator Training course in Rome. Participants were trained in using both its basic and advanced features, enabling them to set up a CountrySTAT system at their National Statistics Offices and Ministries of Agriculture.

Participants from the following EC-FAO countries attended the training: Ethiopia, Malawi, and Sudan.

More Information

CountrySTAT web site

<http://www.fao.org/statistics/countrystat/>

Advanced Administrator Training Report

http://www.foodsec.org/tr/countrystat/CountrySTAT_report.zip



Nutrition Tools

http://www.foodsec.org/tools_nut.htm

The Household Food Insecurity Access Scale (HFIAS)

The HFIAS measures households' food access including the quality and quantity of their diets and their anxiety about procuring enough food. It classifies households' food access status by capturing the severity and frequency of their problematic experiences over the previous 30 days. Households are then classified as having:

- a) adequate food access
- b) mild food access deficit
- c) moderate food access deficit
- d) severe food access deficit

The HFIAS (originally developed by FANTA) has been adapted for use in Kenya, Malawi, and Mozambique by local nutritionists with technical assistance from FAO's Nutrition Division, in collaboration with the EC-FAO Food Security Programme and FANTA.

The Dietary Diversity Questionnaire

Dietary diversity is a key element of high quality diets and helps ensure adequate intake of essential nutrients.

The Dietary Diversity Questionnaire (DDQ) measures the number of different *food groups* consumed by households or individuals. Greater dietary diversity has been shown to increase the probability of meeting macro- and micronutrient requirements.

Dietary diversity questionnaires need to be adapted to local conditions and local languages. It is especially important to compile comprehensive lists of locally available foods using their common names.

The EC-FAO Programme has supported the adaptation of these tools to local diets and languages.

Information for Action

The simplicity of the questionnaires and the type of information they capture make them ideal for rapid

assessments. Since they allow comparisons across time and space, they may be used for:

- situation and vulnerability assessments;
- monitoring the results of interventions and policies; and
- evaluating the outcomes of strategies and programmes such as nutrition education or crop and livelihood diversification.

The dietary diversity indicator has also been included in the Integrated Food Security Phase Classification (IPC).

Focus on Monitoring Hunger and Malnutrition in Mozambique

Although Mozambique has significantly reduced poverty levels in the last five years, malnutrition rates remain very high. Indeed, more than 40% of children suffer from chronic malnutrition. Mozambique's Technical Secretariat for Food Security and Nutrition (SETSAN) thus requested FAO's assistance in choosing indicators to help monitor progress made in reducing hunger and malnutrition.

The DDQ and the HFIAS have been used for a baseline and follow-up survey conducted by FAO in Manica and Sofala provinces.

On 27 February 2008, SETSAN organized a meeting, attended by representatives from major food security and nutrition organizations, where participants agreed to adopt the dietary diversity questionnaire for monitoring food security.

Training and Workshops

A series of training events and workshops were conducted in Kenya, Malawi and Mozambique. For more information see:

<http://www.foodsec.org/tr.htm#nut>

More Information on the Tools

Household Food Insecurity Access Scale (HFIAS)

<http://www.foodsec.org/tr/nut/hfiас.pdf>

Dietary Diversity Questionnaire (DDQ)

<http://www.foodsec.org/tr/nut/hdd.pdf>

Guidelines for Measuring Household and Individual Dietary Diversity

<http://www.foodsec.org/tr/nut/guidelines.pdf>

HFIAS Indicator Guide

<http://www.foodsec.org/tr/nut/hfiас.pdf>

International Workshop Report

http://www.foodsec.org/tr/nut/nut_report.pdf



Food Security Statistical Module

http://www.foodsec.org/tools_stats_02.htm

Overview

Collecting relevant statistics is the only way of objectively knowing how widespread hunger and malnourishment actually are. The Food Security Statistical Module (FSM) thus aims at strengthening the capacity of national statistics systems in:

- conducting statistical analysis; and
- producing policy-relevant food security statistics and indicators.

In the context of the EC-FAO Programme, statistics related activities included:

- carrying out extensive training workshops in the **statistical analysis of food consumption data** collected in the Household Budget Surveys.
- publishing a series of **food insecurity assessment papers** which were presented at a full day side event at the Fourth International Conference on Agriculture Statistics (ICAS-4) held in Beijing, China in October 2007. These papers were published in a book "Deriving Food Security Statistics from National Household Budget Surveys"; and
- in collaboration with national statistics offices, publishing in depth **national food insecurity assessment reports**. Results were then widely disseminated at national seminars.

Statistics Activities At a Glance

"On-the-job" Training in:

Armenia, Burkina Faso, Cambodia, Cape Verde, Georgia, Haiti, Kenya, the Lao PDR, Moldova, and Tajikistan.

Training at FAO's International Demonstration Centre (IDC) for participants from:

Malawi, Mozambique and the West Bank and Gaza

National Workshops for Disseminating Food Security Information in:

Armenia, Burkina Faso, Cambodia, Cape Verde, Georgia, the Lao PDR, Malawi, Moldova, Mozambique, Tajikistan and the West Bank and Gaza.

Food Insecurity Assessment Reports Published for:

Armenia, Burkina Faso, Cambodia, Cape Verde, Georgia, Haiti, Kenya, the Lao PDR, Malawi, Moldova, Mozambique, Tajikistan and the West Bank and Gaza.

Focus on the West Bank and Gaza

From 29 November to 21 December 2006, a policy analyst from the Ministry of Agriculture, a senior statistician from the Palestinian Bureau of Statistics and a FIVIMS econometrist received advanced training in food security statistics at FAO's International Demonstration Centre (IDC).

Food consumption statistics from the 2005 Palestinian Expenditures and Consumption Survey (PCES) were used to assess current levels of food insecurity and malnourishment and better understand their causes.

This work feeds into other activities supported by the EC-FAO programme in the West Bank and Gaza, such as:

- working with WFP on the 2006 Comprehensive Food Security and Vulnerability Analysis (CFSVA) which was published in June 2008; and
- developing the First Socioeconomic Monitoring System in the West Bank and Gaza.

More Information

The Food Security Statistical Module
http://www.foodsec.org/tools_stats_02.htm

Statistics Training and Workshops
<http://www.foodsec.org/tr.htm#sta>

Statistics Publications, including links to the national food insecurity assessment reports
http://www.foodsec.org/pubs_stats.htm

FAO. 2008. Deriving Food Security Information from National Household Budget Surveys
<http://www.fao.org/docrep/011/i0430e/i0430e00.htm>



The Integrated Food Security Phase Classification (IPC)

<http://www.ipcinfo.org>

The Integrated Food Security Phase Classification (IPC) is a standardized tool that aims at providing a “common currency” for classifying food security situations.

Using a common scale, which is comparable across countries, makes it easier for donors, agencies and governments to identify priorities for intervention before they become catastrophic.

The IPC is...

- a **tool** for analyzing and classifying the **severity of food security situations** at the national and sub national levels (usually based on livelihood zones). All analysis is backed up by both quantitative (ex. mortality rates) and qualitative evidence (ex. widespread conflict, asset stripping). This ensures that the classifications and analysis are transparent, rigorous, and based on documented evidence.

- a **process** whereby key food security organizations and the national government literally sit together to look at the evidence and come to a common consensus on the severity of a crisis. This makes setting priorities and planning a well coordinated response easier.

The IPC is not...

The IPC does not aim at replacing existing information systems or methodologies. It is a framework for organizing and analyzing whatever information is available and triangulating it to get the “big picture” right.

The IPC is not a tool for planning response. However, by bringing different actors together to work collectively on analyzing the situation, it facilitates the kind of coordination and dialogue that is vital for effective response.

EC-FAO Programme Support

The EC-FAO Programme has supported the technical development of the IPC. This included organizing the highly successful month-long IPC Forum (March 2006)

and international meeting in Rome where leading food security related organizations committed themselves to working together to further develop the IPC. It also supported the technical work leading to the publication of the revised IPC manual.

The programme has also supported the implementation of the IPC in several countries, including Kenya where government ownership and the institutionalization of the IPC analysis process has been especially solid.

Global Partners

The potential of the IPC to support a common approach for both food security situation analysis and response is at the root of the commitment of eight leading organizations involved in its development: CARE International, EC Joint Research Centre FAO, FEWS NET, WFP, Oxfam GB, Save the Children (UK and US) and WFP.

These organizations came together in March 2007 as an innovative multi-agency partnership to work towards developing and applying true international standards for food security meta-analysis to foster more appropriate action in crisis situations.

Country and Regional Activities

The IPC has been implemented or is being introduced in 17 countries in Africa and Asia. Staff from an additional 13 national governments have been trained, through regional events, which have taken place in Eastern and Central Africa, West Africa and Southern Africa.

More Information:

The IPC website:
<http://www.ipcinfo.org>

IPC Technical Manual Version 1.1
<ftp://ftp.fao.org/docrep/fao/010/i0275e/i0275e00.pdf>

Related Articles:

AFRICA: New improved disaster response tool (IRIN, November 2007)
<http://www.irinnews.org/Report.aspx?ReportId=75303>

A “Common Currency” for Classifying Food Security
http://www.foodsec.org/news_06_25.htm



The Crop Monitoring “CM” Box

http://www.foodsec.org/tools_cw_01.htm

Overview

Information about expected crop yields is essential for food security planning and helps analysts understand if there may be shortages.

The Crop Monitoring “CM Box” thus offers software, training, and data (on request) to help countries rapidly set up national crop monitoring and forecasting systems. Reference data as well as real-time satellite and weather data can be provided by FAO headquarters. However, as local capacity increases more and more national data is used.

Capacity Building Activities

EC-FAO programme activities concentrated on building crop monitoring capacity in many countries. For example, two agro-meteorologists and two agricultural statisticians, from Cambodia and the Lao PDR, attended a 3 month training programme in Rome. They learned how to:

- customize forecasting software to their country’s specific situation using both historical and current agronomic, meteorological and satellite data; and
- produce rice yield forecasts using the “CM Box”.

This was followed by intensive training of more experts in Cambodia and the Lao PDR. This led up to the publication of Cambodia’s first agro-meteorological bulletins. The bulletins inform decision-makers, analysts and technicians about the crop situation during the agricultural season. The Lao PDR has also begun publishing its first crop yield forecasts.

Furthermore, 23 experts from Malawi, Ethiopia, the DRC and Zambia received three weeks of intensive training in using modern agro-meteorological and remote sensing tools. One of the positive outcomes of this international training event - held in Malawi - was that trainees now network with each other to support each other’s continuous learning and share experiences.

Statistics in Applied Climatology (SIAC) Training Course

Statistics in Applied Climatology (SIAC) is a three month online training course run by the University of Reading. As weather is a crucial factor affecting food production, the training ensures that staff from the national food security information systems will be able to produce relevant, tailored outputs that enable end-users to make better decisions regarding food security, agricultural planning and disaster management.

Experts from the following EC-FAO programme countries attended the course : Malawi, the DRC, Eritrea, Ethiopia, Somalia and the Sudan.

Working with the Southern African Development Community (SADC)

Monitoring crops and weather in the SADC region is crucial for food security. The EC-FAO programme has thus helped strengthen agro-meteorological capacity at SADC’s Regional Remote Sensing Unit (SADC-RRSU). Indeed, the RRSU was fully funded by the programme during this phase.

In 2006, a Regional Agrometeorology Workshop was organized at SADC headquarters in Gaborone, Botswana.

For more information, see:

http://www.foodsec.org/news_06_03.htm

More Information

CM Box User Guide

http://80.69.76.153/wiki/index.php?title=Main_Page

Training and Workshops

<http://www.foodsec.org/tr.htm#agr>