



منظمة الأعدية  
والزراعة  
للأمم المتحدة

联合国  
粮食及  
农业组织

Food  
and  
Agriculture  
Organization  
of  
the  
United  
Nations

Organisation  
des  
Nations  
Unies  
pour  
l'alimentation  
et  
l'agriculture

Organización  
de las  
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para la  
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y la  
Alimentación

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**Implementation and Prospectives of CountrySTAT  
In the Asia and Pacific Region**

**ASIA AND PACIFIC COMMISSION  
ON AGRICULTURAL STATISTICS**

**TWENTY-SECOND SESSION**

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**Implementation and Perspectives of CountrySTAT in  
the Asia and Pacific Region**

**Kafkas Caprazli<sup>1</sup>**

**Statistics Division**

**Food and Agricultural Organization of the United Nations**

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<sup>1</sup> CountrySTAT Manager, Statistics Division, FAO of The UN, Rome - Italy.

## **Executive Summary**

CountrySTAT is an integrated national food and agriculture statistical information system ensuring harmonization of national data and metadata collections for analysis and policy making. The web based system uses common international standards and frameworks i.e. FAOSTAT, GAUL, SDMX and is being implemented in the APCAS Region by the Republic of the Philippines and the Kingdom of Bhutan and Regional Data Exchange System (RDES). Technical, methodological and outreach related achievements, experiences gained, lessons learned in general and in these cases are described and explained in this paper.

## **1. Background**

Nationally owned, reliable and timely statistical data and derived indicators on social, economic and natural resources are indispensable basis for efficient and effective decision-making and policy monitoring processes in the field of food and agriculture.

Since the mid-1980s many national and international agencies have invested in establishing statistical information systems on food and agriculture in countries of the Asian and Pacific Region. However, systems developed in general had narrow scopes over a broad range of domains and projects, without seeking synergies with other activities, domains or projects and without long-term proper consideration given to sustainability.

The demand for easily accessible consolidated and internationally comparable quality statistical information has been growing with globalization which brings together its constraints as well as opportunities. The need for statistical information on food and agriculture by producers, traders, policy makers and researchers is especially is also growing for countries of Asia and the Pacific Region as the local production is largely depended on favourable natural conditions, the competition in subsidized export markets becomes difficult and national incomes are too low to ensure national food security via imports. The typical state of affairs of the quality of food and agriculture statistics in the Asia and The Pacific Countries show that availability and timeliness score relatively good but accessibility and integratebility score especially low.<sup>2</sup>

Member Nations have requested FAO's assistance in establishing or further developing their own statistical information systems.<sup>3</sup> FAO Statistics Division has decided to respond to that request with CountrySTAT<sup>4</sup>. An informal international expert consultation meeting on CountrySTAT enriched the principle response with concrete features in July 2003<sup>5</sup>. After three pilot case studies in 2005, CountrySTAT became part of FAO Statistics Division's Regular Programme of Work. However the implementation in the Member Nations mainly depends on availability funds of the donor community<sup>6</sup>.

## **2. The CountrySTAT Approach**

The overall goal to CountrySTAT activities contribute is about bringing accelerated reduction in hunger and poverty through more productive and sustainable agriculture policies, the economic basis of the poor. Within that goal the objective of CountrySTAT model is the establishment of nationally owned and maintained information systems and supporting capacities in order to

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<sup>2</sup> The Agricultural Bulletin Board on Data Collection, Dissemination and Quality of Statistics project (ABCDQ) <http://193.43.36.14/abcdq/about.htm>

<sup>3</sup> The Asia and Pacific Commission on Agricultural Statistics (16<sup>th</sup> Session), Tokyo 1996 expressed the importance of developing a system for strengthening co-operation among member countries.

<sup>4</sup> FAO Programme Committee (87<sup>th</sup> Session): Modernization of FAOSTAT – An update. Rome, 6-10 May 2002. <http://www.fao.org/DOCREP/MEETING/004/Y6298e.HTM>

<sup>5</sup> Final Report- Informal Expert Consultation on CountrySTAT, Rome, July 2003. [http://www.fao.org/es/ESS/meetings/fin\\_rep.asp](http://www.fao.org/es/ESS/meetings/fin_rep.asp)

<sup>6</sup> A current world map of countries implementing CountrySTAT is available at <http://www.fao.org/statistics/countrystat/img/worldmap.jpg>

provide quality statistics on food and agriculture, and promote evidence based technical, political and financial decision making, partner with national statistical offices or other statistical authorities to support their capacity building, and to support sister agencies to help them achieve success in governing.

Efficient public expenditures within implementation of policies are of essential importance in order to achieve the World Food Summit and Millennium Development Goals to which the Governments of Member Nations have committed themselves.

CountrySTAT can support efficient targeting of expenditures for the hungry and poor given. Policy makers and researchers can monitor in general as well as country specific determinants of food deprivation, poverty and intra- and inter-sectoral income disparities as multifaceted phenomenon. CountrySTAT projects aim at integrating CountrySTAT Systems in the regular workflows of National Agricultural Statistics.

The typical CountrySTAT implementation partners are National Statistical Offices and Ministries of Agriculture. The most important risks in the CountrySTAT implementations are the loss of country ownership or declining interest and lock after the project ends. Another risk is the loss (or mobility) of trained staff.

### **3. The CountrySTAT Framework and System**

CountrySTAT generates on the web and on CD-ROM, interactive tables, graphics and maps for reports and presentations, it offers various formats for data and metadata exchange (html, XLS, CSV, XML). Since 2005, CountrySTAT is being developed by FAO Statistics Division in technical collaboration with Statistics Sweden who provides PC-Axis Software Family the powering information dissemination technology. The datasets of CountrySTAT maintain statistics and indicators by time periods and geographic areas to monitor conditions and performance of food and agriculture sector. The national and subnational datasets are compared to the national extractions of FAOSTAT of a more exhaustive and specific nature. In 2008, FAO Statistics Division has decided to elaborate a simplified food balance sheet methodology and to integrate it into CountrySTAT approach, this shall be a clear value added to pure provision of raw statistical information.

#### 4. CountrySTAT Implementations in APCAS Region

The practical implementation of CountrySTAT is composed of phases and different capacity building activities are required to support implementing partners at each stage. In the APCAS Region, The Kingdom Bhutan is currently in the initial phase of implementation, in which the application is enriched to respond to the national needs, and main players are introduced to the application and the initiative, while The Republic of Philippines has entered a subsequent phase involving a dissemination and subnational advocacy strategy. A regionalized version of CountrySTAT has been adopted and implemented as under the Regional Data Exchange System (RDES), this can be technologically at an advanced stage however the statistical information workflows from the countries to the CountrySTAT for RDES and the subsequent backend harmonization of datasets will require more methodological development works for which the feedback of the countries will be necessary. In the following sections the implementations will be presented.

##### 4.1 CountrySTAT Implementation in Regional Data Exchange System (RDES)

<http://faorap-apcas.org/rdes>

Under the FAO/Japan Project GCP/RAS/184/JPN, the Regional Data Exchange System has been developed and launched with the CountrySTAT technology.



Figure 1: RDES CountrySTAT graphical user interface

Figure 1 shows the RDES CountrySTAT user interface leading to the food and agriculture statistics of the individual countries and indicators of the APCAS Region.

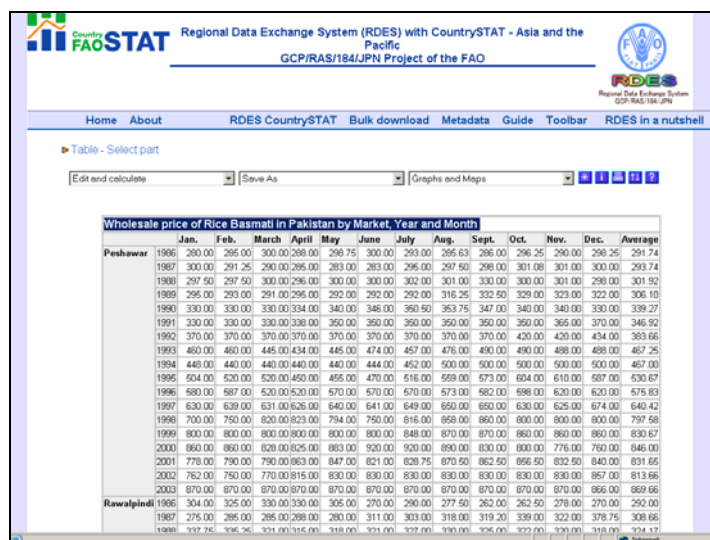


Figure 2: RDES CountrySTAT offering National Disaggregated Statistics

Figure 2 shows an example of price statistics for a major crop transformed into interactive RDES-CountrySTAT format, disaggregated at sub-national and sub-annual level.

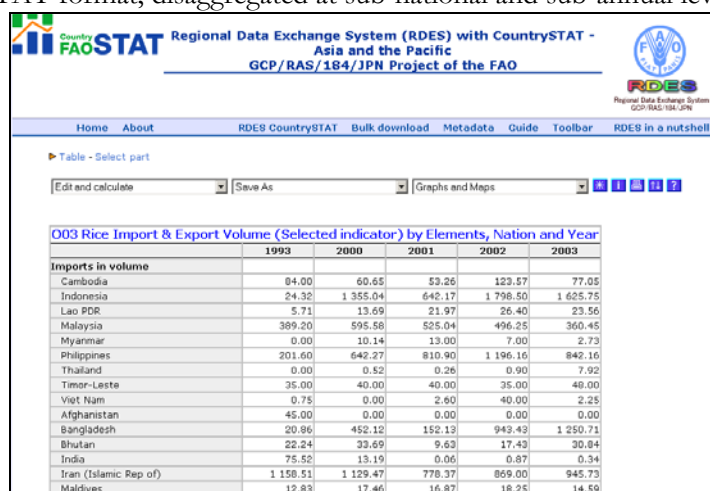


Figure 3: RDES CountrySTAT Cross-National Aggregated Statistics

Figure 3 from RDES website shows an example of trade statistics for a major crop transformed into the interactive RDES-CountrySTAT format, aggregated national and annual levels.

Also under GCP/RAS/184/JPN a users manual for Regional Data Exchange System with CountrySTAT has been elaborated and published and gives facts about the usage as administrators and end-users.

Despite the good works of the project GCP/RAS/184/JPN, the identification of an institution to which the mandate of ownership RDES System and maintenance of gathered statistics and indicators is pending decision by Members of APCAS.

## 4.2 CountrySTAT Implementation in The Republic of Philippines

<http://countrystat.bas.gov.ph><sup>7</sup>

CountrySTAT Philippines has been launched formally at the Sub-regional Workshop on CountrySTAT and Metadata (Manila, October 2006) (See also Figure 4) The experiences from the implementation of CountrySTAT Philippines have been already reported by the country at 21st Session of APCAS<sup>8</sup>

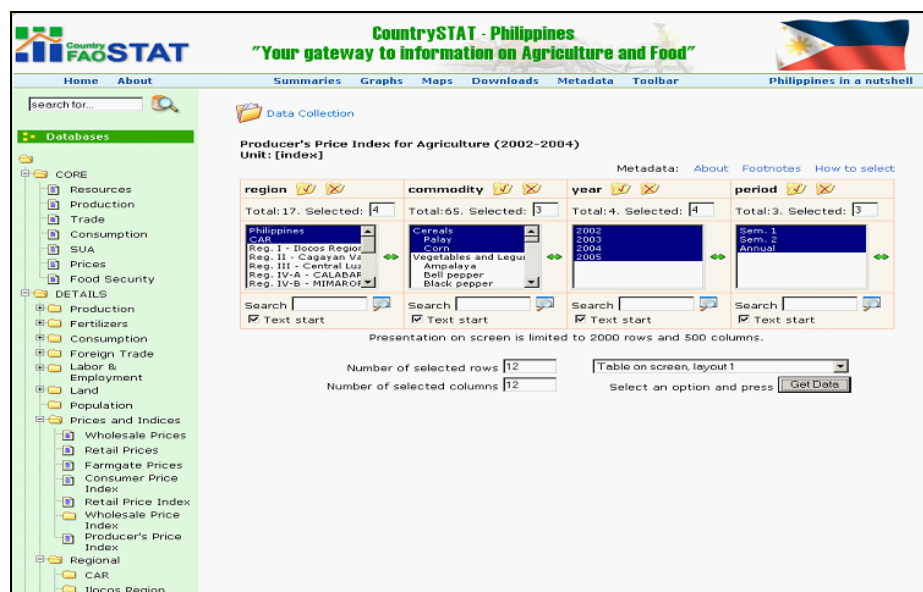


Figure 4: CountrySTAT Philippines - Graphical User Interface

In this context following current achievements are valuable to know for APCAS countries:

- nine national statistical authorities of The Philippines agreed to have a single agency (Bureau of Agricultural Statistics) to act as the custodian for CountrySTAT Philippines;
- a systematic metadata framework supporting the statistical data has specified and technically integrated with the online CountrySTAT Philippines System;
- a series of national workshops have been organized with the purpose of awareness raising and technical skills transfer to partner agencies that are contributing and using statistics on food and agriculture;
- Time-series, especially those of price statistics and indexes are updated on regular basis;
- the skills acquired at CountrySTAT trainings at FAO Headquarters were maintained and became useful for the further development of principle CountrySTAT System and practical adaptations of CountrySTAT for Kingdom of Bhutan, and demonstrated a fine example of technical collaboration within the APCAS Region.

<sup>7</sup> Newer screenshots of the CountrySTAT Philippines were not available at the moment of the document generation as BAS Website ([www.bas.gov.ph](http://www.bas.gov.ph)) including its sub-domain ([countrystat.bas.gov.ph](http://countrystat.bas.gov.ph)) was undergoing a webserver upgrade and all website services were suspended until 05 June 2008.

<sup>8</sup> Asia and Pacific Commission on Agricultural Statistics (Twenty-First Session) Phuket, Thailand, 11-15 September 2006. Establishing CountrySTAT: Experience in The Philippines <http://www.fao.org/ES/ess/meetings/download/apcas21/APCAS-06-11.pdf>

### 4.3 CountrySTAT Implementation in The Kingdom of Bhutan

<http://www.si-vs506.com/csbhutan> (beta-version)

The principle adaptation of the CountrySTAT for Bhutan was undertaken by the Policy and Planning Division of the Ministry of Agriculture (MoA) between June 2007 and March 2008 with support of FAO under TCP for Bhutan Facility and the FAO Netherlands Partnership Programme (Project FNPP/GLO/001/NET) three staff from MoA were trained at FAO Headquarters, a statistical consultancy worked on the synchronization of CountrySTAT Bhutan with FAOSTAT in Rome-Italy, an IT consultancy technically backed by technical expertise from CountrySTAT Philippines provided backstopping to MoA in Thimphu-Bhutan. An official launch of CountrySTAT Bhutan is pending finalization of subnational datasets and clearances by MoA Authorities.

The datasets in the CountrySTAT-Bhutan are organized under three major groups: national core, district level (dzongkhags) and sub-district level (geogs). The national core contents the data consolidated to national level for sharing with FAOSTAT database while the district level and sub-district level data are those disaggregated to sub-national levels with more relevance to national plan and policy makers, researchers and projects intended for rural development. This arrangement provides end-users with the possibility of navigating through the datasets from either geographic or thematic paths.



Figure 5: CountrySTAT Bhutan - Graphical User Interface

Figure 5 from CountrySTAT Bhutan website (beta-version) shows the user interface leading to the food and agriculture statistics of the administrative or thematic units of the Kingdom.





Figure 6: CountrySTAT Bhutan - Gateway to National Statistical Documents

Figure 6 from CountrySTAT Bhutan (beta-version) shows how important national statistical documents can be made accessible via the gateway.

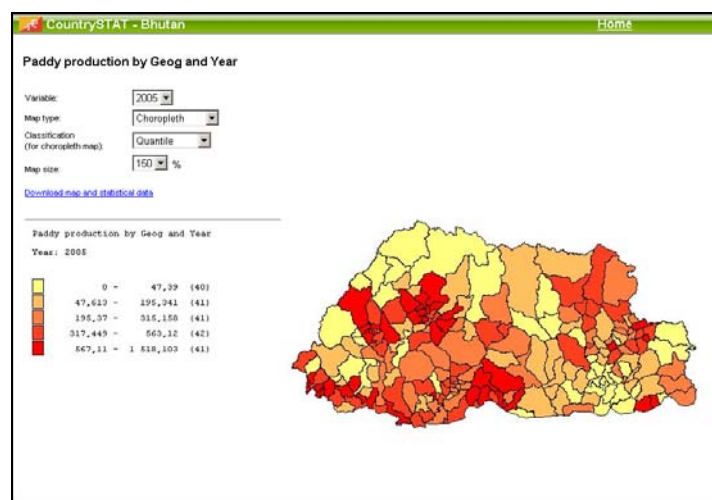


Figure 7: CountrySTAT Bhutan - Map based Analysis

Figure 7 from CountrySTAT Bhutan (beta-version) shows the mapping feature enabling users to get a rapid overview and analysis down to second administrative layers.

The CountrySTAT system requires the preparation and publication of proper metadata. All the statistical tables posted in the CountrySTAT Bhutan are adequately backed up by metadata. The details on the national food and agricultural statistical information can be accessed on the website by Documents & Metadata.

The CountrySTAT Bhutan works could have moved faster and further if sufficient number of dedicated human resources (Regional Officers) at FAO Headquarters would have been available.

## 5. Lessons learned and Perspectives

1. Overall we have had underestimated the degree of varieties of computer-networks and associated efforts for integration of CountrySTAT webserver into non-Windows systems. As a lesson learned from the cases, in the future CountrySTAT implementations we plan from the beginning to publish at an FAO-controlled webserver where national experts are not available ad-hoc and then as the countries feel comfortable and technically ready, they can publish on their own web servers.
2. We have verified that the ideal in-country key partners for CountrySTAT are the National Statistical Offices, as these have the mandate to collect and publish statistics for their country, have experience in dealing with different authorities who are competent on their sector, like customs office, treasury, ministry of agriculture, ministry of fisheries, ministry of forestry, ministry of rural development etc.
3. We have learned that CountrySTAT projects shall have Memorandum of Understandings or equivalent agreements for sustainable working relations and for the continuous commitment of human and non-human resources by the partners.
4. We have learned that the integration of partner agencies from the very beginning into CountrySTAT is important for principle acceptance, and that acknowledgment of ownerships to partner agencies for each of their statistical tables is important for their sustainable collaboration.
5. We have learned how automated data harvesting among CountrySTAT systems works and that herein the design of a safe and smooth workflow design deserves special attention.
6. We have learned that the CountrySTAT capacity building trainings at FAO Headquarters in Rome-Italy are not only appreciated by the trainees but are very fruitful because we can provide auxiliary thematic seminars during the training at no travel costs for the FAO experts, and as we know the facilities we operate training in a fully-controlled environment,
7. We have learned that the CountrySTAT projects shall supply dedicated laptops and other equipment to the trainees because availability of quality equipment for the day to day works is key to instant technical operations as well as staff dedication and thus key to post-training and post-project sustainability of CountrySTATs.
8. Besides a core team of statisticians and IT professionals Headquarters for every four countries one regional officer is required in order to provide technical backstopping during establishment and initiation but especially during the post-training phases.
9. At FAO Headquarters distinct bodies are in charge of executive, coordinative and modus operandi of CountrySTAT. Similar organizational structures with clear mandates to own and maintain CountrySTATs respectively RegionSTAT are recommended to identify or seek for existing ones suitable to take this work on board.
10. Member Nations in APCAS Region could benefit from synergies of a “RDES with CountrySTAT Project” which would establish and support 16 nationally owned CountrySTATs collaborating under one RegionSTAT for RDES. In such a RegionSTAT for RDES an important component would be the calculation and usage of nationally owned Food Balance Sheets, with the semi-automated collaboration for data harvesting from each CountrySTATs and to disseminate relevant statistics via Web Services to selected national and international users of food and agriculture statistics.