

November 28th to 29th 2011



منظمة الأغذية  
والزراعة  
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Food  
and  
Agriculture  
Organization  
of  
the  
United  
Nations

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

Organización  
de las  
Naciones  
Unidas  
para la  
Agricultura  
y la  
Alimentación

## FAO Expert Group Meeting on Cost of Production and Prices

Addis Ababa, Ethiopia, 28th to 29th November 2011

### REPORT

#### 1. Introduction

Following the 21<sup>st</sup> African Commission on Agriculture Statistics (AFCAS) held in Accra, Ghana, 28 – 31 October 2009, the FAO and International Food Policy Research Institute were invited to “conduct a study of country experiences in collecting and compiling cost of production statistics and agricultural price statistics and document these experiences.” Country case studies were carried out in Mali, Zambia and Ethiopia. The description and assessment of country practices and experience on cost of production surveys were synthesized into a summary report with recommendations and options for future work. The results derived from the country experiences led to the organization of an Expert Group Meeting on Cost of Production (CoP) and Price Statistics. Country delegates were invited from African countries and also from Asia, Latin America and North America. Please see the list of participants in Annex 3.

The Workshop was opened with an introductory speech by Josef Schmidhuber, Principal Officer of the Statistics Division of FAO (ESS). The opening speech was followed by a presentation of the specific objectives and expected outputs of the Workshop by Dominic Ballayan, Statistician of ESS. A future development of the FAOSTAT Price domain will focus on the agricultural input price statistics which will be compiled through cost of production surveys. The collection of data on prices paid by farmers for requisites of agricultural production should cover the full range of items constituting the variable operational costs as well as fixed costs. The methodology should follow internationally accepted standards for the data to be comparable across countries.

The value of estimating cost of production are many and include but are not limited to providing planners with base line information for planning purposes, allowing comparisons with other regions or countries, permitting modeling and partial equilibrium analysis, analyzing the impact of technological adaptation, evaluation of farm management practices, determining the relative importance of various inputs, assessing the financial situation for both the farm operator/farming unit, measuring the change of input use over time. When appropriately designed, national cost of production studies can provide a direct link between commodity production practices and the financial status of the farm and the operator's household. Data can also provide insight into many aspects of the agriculture sector and its contribution to the national economy. Cost of production data are often used to set local market prices and for establishing support levels for farm commodity production in some countries.

In this light, the role of ESS is to provide a forum for discussion and a platform for sharing country experiences and best practices with regard to CoP activities and studies; assist countries with methodological guidelines for conducting CoP surveys for principal crops and livestock and improving related statistics; and facilitate the comparisons of CoP across countries.

The objectives of the meetings were to review country experiences with CoP estimation; outline and examine the main methodological aspects related to the compilation of CoP statistics, discuss the statistical and conceptual challenges and identify possible solutions, develop a framework for compiling the cost of production for agriculture products, and discuss how CoP programs can be integrated into the existing agriculture statistics systems.

The expected outcomes of the workshop were to identify the key issues pertaining to the collection and compilation of CoP statistics, examine the main challenges associated with the production of CoP statistics; collect insight for developing a methodological framework for the compilation of CoP statistics, and propose the next steps for the way forward in having CoP statistics for countries and in FAOSTAT.

The timing and venue of the Meeting were strategically set on the 28-29 November 2011 in Addis Ababa to coincide with the 22nd Session of the AFCAS. AFCAS delegates had the opportunity to provide feedback on the conclusions and recommendations from the Expert Group Meeting on CoP.

## **2. Presentations**

Presentations were dedicated to country practices pertaining to the compilation of CoP statistics.

### **A Review of Country Practices in Ethiopia, Mali and Zambia – Peter Lys (Consultant, FAO)**

To set the stage, the 1<sup>st</sup> presentation was the Review of Country Practices in Ethiopia, Mali and Zambia by FAO Consultant Peter Lys. The three countries have different institutional arrangements to collect and to disseminate official statistics for agriculture but they all use census as the basis for sampling, and they use a regional infrastructure to launch the collection efforts. All of the countries reviewed were deemed by the presenter to have some (not all) of the necessary elements required to implement a regular cost of production program. If transnational comparisons are a requirement, then agreements will be necessary on the sequence and rotation patterns for the cost of production products. If results are to be compared across countries, then agreements on concepts need to be documented. In addition, countries should agree on a calendar for collecting similar crops for the same crop year. The report will soon be available on the ESS website.

### **The USDA Commodity Costs and Returns (CAR) Estimation Project – William McBride (USDA)**

The second presentation was on the USDA Commodity Costs and Returns (CAR) Estimation Project by William McBride of the USDA. The CAR Project dates to the Agricultural and Consumer Protection Act of 1973 to conduct and updated annually a cost of production study of main commodities and calculate current national weighted average cost of production. The Act specifies that the study is to include all typical variable costs, including interest costs, a return on fixed costs, and a return for management.

The data collected in commodity surveys as part of the Agricultural Resource Management Survey (ARMS) are the basis for the CAR estimates. The commodity surveys are conducted every 4-8 years on a rotating basis for each commodity. The estimates between surveys are updated based on price, acreage, and production changes. Finally, the methods are those recommended in the Commodity Costs and Returns Handbook by the American Agricultural Economics Association (AAEA) Task Force. The CAR account measures historic costs incurred by commodity producers, as opposed to farm planning budgets and excludes marketing costs to value production at the time of harvest; measures the costs incurred by all participants in production (i.e. farm operators, landlords, contract growers, contractors); and measures

costs of purchased inputs and opportunity costs of farm supplied or homegrown inputs. The data are used in more than 400 briefings and analysis for policy makers, 90 market analysis updates and 50 major reports annually, and other major USDA publications.

Three other country delegates provided overviews of current initiatives related to CoP and prices:

- The Asaar (prices in Arabic) Project in Morocco by Mohammed Kamili;
- The Methods of data collection for CoP and Farm Prices for Field Crops and Vegetables in Egypt by Mamdouh Shawki; and
- The Cost of Production in Kenya by Abner Ingosi.

The experiences were numerous and sharing them led to a comprehensive discussion of the practical challenges faced in the compilation of CoP estimates. These challenges are addressed in the next section.

Finally, Naman Keita the CountrySTAT manager (FAO) illustrated the CoP data dissemination template in CountrySTAT for the Philippines. The CountrySTAT project could allow for an interface through which countries could share their CoP estimates along with the metadata. The Meeting agenda is in Annex 2.

### **3. Discussion on key issues related to CoP statistics**

The theoretical basis of estimating cost of production is well established and has its roots in micro economic theory. Costs can be thought of as either purchased and include inputs such as seed, fertilizer, pesticides, hired capital expenses such as machinery or livestock, labor, depreciation on owned machinery and buildings, and the imputed opportunity cost of owned capital and unpaid labor used in the production process. In simplistic terms, estimating the cost of production is the measurement of all economic costs associated with the production of a given commodity.

While the theory is well established, many challenges are encountered in practice. Among the obstacles to overcome are the treatment of non-purchased inputs and labor, the measurement of depreciable capital and of inputs used for more than one output (commodity). Extending the cost of production analysis to estimate net returns involves accounting for transaction prices where they exist and imputing for them where they do not. Finally, when attempting to extend the analysis to make inferences at the national level, then additional complexities arise in assuring the representativeness of the units of observation and the measurement issues become correspondingly more complex.

#### **3.1 Activity and output coverage**

A few factors come into play when it comes to selecting the commodities for which to estimate the CoP. They include the relative values of the commodities in national production/consumption, the policy relevance such as price support, and other strategic factors such as cash crops. Except for United States where there is a legislative framework supporting CoP studies, most other countries present cover one of just a few items in their CoP surveys and conduct these only on an ad hoc basis. CoP studies are seldom conducted for livestock and products. The government usually fund CoP programs for specific strategic crops such as maize in Zambia, cotton and sugar (yearly) and major cereals (on demand) in Mali, and rice in the Philippines etc. For instance, in Zambia, CoP studies were conducted on maize production to provide a basis for determining the amount of subsidy required.

In addition to resource constraints, other problems faced by data providers in this area include the prominence of illiteracy within smallholder farmers in Africa makes it impossible to keep record of their transactions as well as to objectively complete the surveys. This contributes to recall bias by farmers when the enumerators arrive at the farms. Also, it is difficult to obtain subjectively collected data in standard units or equivalents from local measurements (e.g. area, production, yield, inputs). For instance, over 80 local area measurement units are used in Ethiopia and there is a lack of appropriate standard

conversions for local measurement units. Some larger commercial farms keep CoP records, but these farms and the resultant costs are not representative for the country as a whole especially where most of the farms are small in scale.

The delegates proposed that a CoP survey should not include all commodities produced by a country, but instead to rank them (i.e. starting with strategically important commodities and gradually including others in order to keep the conceptual requirement while avoiding bulky questionnaires and fatigue from respondents and enumerators. The marginal benefit decreases when all crops produced by a country are measured. Enumerators and other highly skilled field agents should work with farmers and farmer groups to record the information.

The survey for CoP estimates was deemed not necessary for every year but should be done every 3 to 5 years depending on how often the sector undergoes significant changes. The selected year should be a 'normal' year. The producer prices can be used as indicators to estimate the CoP for the non-survey years. The quantities are collected periodically and prices are indexed in non-survey years. However, given the considerable input price elasticity in many developing countries, there may be high variability of production costs between years.

In sampling for the typical farm, the delegates had opposing views. Some agreed that whole countries should not be covered for every commodity but instead to stratify within the major production zone where homogeneity and representativeness can be claimed and the survey cost can be reduced. This was deemed suitable for wheat in Morocco. However, due to regional diversity in a given country (i.e. Nigeria), the main production zone may not always be nationally representative. It was also highlighted that due to spatial differences and high transaction costs, seed costs may vary between different locations and hence averages may not tell the whole story.

### **3.2 Purchased inputs, imputed costs, fixed costs allocation and shared inputs**

In compiling the cost of purchased inputs, the standard practice is to collect data on volume and value of all variable inputs including the quantity of fertilizers applied (kg/ha), the prices for fertilizers (currency/kg), the number and types of crop protection as well as the cost per application, the quantity of seeds used (kg/ha or U/ha), the cost of seeds (currency/kg or U), and other cash costs. All these are information sought for in CoP survey questionnaires. Finally the presentation of the disseminated data depends on the intended use i.e. costs per ha, per farm or per unit of production.

The problems encountered here are that most small scale farmers don't purchase fertilizers and rather use their own; and hiring labor is not common practice. The cost of these inputs have to be estimated as well in order to account for all costs. Sometimes farmers purchase inputs collectively. Farmers also often transact through a barter system; for instance an interlinked type of contract where irrigation services are provided and the farmers pay periodic fees with their produce. Care needs to be taken in assigning costs in these cases.

Labor is one of the most important inputs into agricultural production. Different approaches with varying levels of complexity are used internationally. Essentially the aim is to arrive at the number of hours per operation (hired labor & family labor), the number of overhead hours (hired labor & family labor), wage rates (currency/hour), the value family labor input at opportunity cost (currency/hour).

Attaching a price to the farmer's work or evaluating the amount of time spent on a certain activity combined with the seasonality of the activities can make the estimation of labor costs difficult. In some countries, farmers' associations take turns to assist their members or family member (including children) work on the farm "free of charge". In all these cases, the delegates agreed that the cost of hiring a person in a community for the particular task should be how much one should allocate to the worker. Otherwise, in the absence of such labor markets, the opportunity cost of the labor can be calculated for the worker

based on their qualifications and the most nearby labor market and deduct other payments provided in kind (i.e. food and shelter for family workers). The minimum wage is used for children in the United States. The question arises as to what should be the true opportunity cost.

More models can be proposed in this area. Diaries can be solicited by farming system and by degree of mechanization to come up with a catalogue standard coefficients estimate the cost of labor by activity or output. Gender disaggregates can also be inferred.

Another challenging area is the allocation of shared inputs such as the case of machinery use within a community. The process here can be rather sophisticated in a developed country context (i.e. the KTBL in Germany construct a set of indicators based on diaries kept by farmers). A difficult task, however, a catalogue of norms and standards where records are kept to generate parameters in the African context is an option (ref. FAO guidelines on record keeping). Record keeping would require some level of literacy (measuring and weighting). The strategy of last resource here is the calculation of the opportunity costs i.e. valuing by use. The delegates agreed that a formula is required in order to allocated the cost of shared inputs.

Another consideration was on how to deal with multi-year enterprises such as allocating pre-productive costs such for perennial crops and meat and dairy replacement animals. Amortizing over expected life was proposed in these cases to account present value of stream of costs and returns while taking into account the level of intensification.

### **3.3 Calculating the cost of capital**

In calculating the cost of capital the following costs need to be taken into account: interest cost (selecting a long-run rate of return to farm assets) and depreciation (straight linear based on the repurchase prices or replacement cost for the item i.e. machinery). To avoid the calculation of interest on loans, the full ownership assumption only looks at depreciation and opportunity cost. The maintenance cost of capital ought to be accounted for as well.

In valuing land, few methodological options are available depending on the factors that one wants to take into account in doing so. The different alternatives allow for different outputs. The opportunity cost for owned land, valued at current purchase prices while taking into account long term investment opportunities. Another option is to value land at the rental rent paid for a similar land development (arable land and grass land) or at the level of the regional land rent. A concern here is when valuing land using the rental rate as a proxy, one may end up with a negative net margin that is primarily due non-agricultural factors. For instance, in Uruguay the opportunity cost of land makes agriculture a unviable enterprise option. The value of land is highly influenced by the location and not agricultural factors such being in an industrial zone can drive up the prices. One proposal was to use the rental rate but not to include the resulting value in calculating the gross margin of agricultural production. Another proposal was to use a representative price (based on other farms in rural areas) to impute farm land values. This way, only agricultural factors are taken into account.

Many questions were raised that did not have a unique answer. The recommendation was to take them on a case by case basis and to apply the most appropriate solution. In the end, we should have an economic cost instead of one that “we feel comfortable with”; the opportunity cost approach is consistent with the method used for owner occupied housing in national accounts.

### **3.4 The collection of CoP statistics**

There were no concrete propositions as to designing a questionnaire to collect data for CoP estimates or to integrating the CoP queries into existing agricultural sample surveys. There is no literature specific to this

area either. The discussion was focused on determining a departure point using the experiences shared so far. It was agreed that the survey should not be overwhelming, especially in the start in order to avoid non-response and problems with recalling as well as to reduce the survey costs.

The same rules for other surveys apply in administering based on the context. For instance, some villages are hard to reach given the poor infrastructure in the African context. Cultural attributes also play a great role as some respondents may not be willing to provide such information to a person who does not speak the same language (e.g. suspicion). Some level of flexibility may be required on the part of the enumerators to accommodate the respondents' schedule. Obtaining accurate data can present other challenges; for instance a keeper, to avoid taxes, will seldom tell the actual number of livestock in their herd. To verify this, one may have to travel to another location where the herd is actually kept.

The timing of the questionnaire is also a topic worth discussing. Given that the seasons are shorter in Africa, the recall may not be so problematic and therefore one may target the last cropping cycle for the CoP survey. A modular approach with different contacts is another proposed survey method (i.e. in the Philippines, three different surveys are administered).

It was deemed that CoP questions should be limited and also not necessary to add more CoP questions in the production surveys as respondents' fatigue to drag down the response rate. The surveys should start small in order to entice the respondents and the survey should also be build based on experience such as was the case to United States' now very detailed questionnaires.

Another idea in the collection efforts is to use expert judgment to derive CoP estimates based on existing data (i.e. national accounts and agricultural census). In the end, there is an array of options available to statisticians to conduct CoP surveys; but some persisting issues ought to be dealt with. These issues include recording and recalling bias, fatigue and questionnaire content, and bugdet.

## **4. Conclusions and way forward**

International comparisons of data require agreement on concepts, definitions and methodology. It's best to start with the concepts as defined in the literature as the challenges are encountered in the implementation rather than in the concept.

In addition to the data collection effort, there is a need to develop a COP methodology that is in line with international standards and ensures comparability of the resulting indicators across countries. Ultimately, experts recommended producing a handbook for the compilation of CoP statistics. The handbook should be produced by a committee of country experts. The first draft should consist of an inventory of concepts and practices to be circulate to countries and stakeholders for comments; and based on this consultation, the committee should finalize the handbook covering methodological guidelines and best practices to be used as training material for countries.

The technical workshop endorsed the following way forward:

1. FAO to develop and administer a broader survey on country practices and actual uses of CoP statistics;
2. Analyze country practices and compile a list of best practices for completeness and conformity on agreed upon concepts;
3. Follow-up with experts to define potential uses and application for CoP and assess these applications against the inventory of country practices;
4. Form a "Friends of the Chair" Committee to develop the first draft CoP handbook materials on specialized topics;

5. Circulate the draft handbook to the African countries and other stakeholders for comments, suggestions and subsequent revisions; and
6. Finalize the CoP handbook on methodological guidelines and best practices to guide participants responsible for assembling CoP statistics and to be used as training material for countries.

## **5. Presentation of the outcome of the CoP Expert Group Meeting to the 22<sup>nd</sup> Commission of AFCAS**

The Commission was presented the recommendations from the CoP Expert Meeting. The Commission endorsed the outcome of the Meeting and stressed that CoP statistics is indeed in line with the economic dimension of the Global Strategy to Improve Agricultural and Rural Statistics. The Commission noted that CoP statistics are receiving increased attention given their importance in agricultural investment decisions and their contribution to national accounts. The Commission further highlighted the importance of CoP data and declared that its implementation should no longer be marginalized. The Commission noted that CoP data play a role as a policy instrument for understanding the conditions facing producers regarding investment decisions and resource use, and for improving the estimation of Agricultural Gross Domestic Product (AGDP) and other basic indicators of the agricultural performance in the overall national economy. The integration of CoP programs into existing agricultural statistical systems was also discussed.

To this end, the Commission also endorsed that Countries and other stakeholders should be involved in future work on Cost of Production Statistics. Cost of production and post harvest losses should be priority for research in Africa.

## ***Annexes 1: List of questions for a scoping of CoP practices in countries***

### **The importance and need of cost of production surveys**

The papers that have been distributed identified several reasons why an ongoing cost of production survey program can be justified to decision makers. Reasons include production decisions on the farm (directly by farmers and indirectly through farm extension service workers). A second reason relates to both input and output subsidies or price support programs that are administered by governments. Having reliable information upon which to base direct and indirect payments, reduces overall government program costs, increases transparency of the program and improves program efficiency. Often the additional cost of the survey program can be funded by the improved efficiency of the farm programs. Additionally, external benefits include improving base level agriculture data for use in the national farm accounts and national income accounts. Better farm data can also serve to provide decision makers with data to better understand the commodity supply situation and better prepare for the times ahead. There are no doubt other reasons why a cost of production survey program can serve to improve both micro and macro decisions.

- *Does your organization have an agriculture cost of production program?*
- *If your country has plans to initiate such a program, how solid are these plans?*
- *Does your organization have plans to initiate a CoP program if your organization does not presently have one?*
- *How do the above mentioned arguments/rationale for a cost of production programme apply to your country?*
- *Are there other reasons that support your countries decision to conduct cost of production surveys?*

### **The relationship to other surveys carried out in the country**

All statistical agencies are faced with demand for information that exceeds their fiscal and technical capacity to deliver on all of them. In the nascent days of statistical programs, surveys were often single purpose in nature. As survey methodology improved and resources became more limited, it became more commonplace to see statistical enquiries be developed in a way so that they would serve more than one purpose. This holds true with cost of production surveys. Most countries collect data on commodity yields, area and production, prices, farm revenues and input use as part of their base agriculture statistics program. Several also integrate these into a cost of production survey program as well. This approach can significantly reduce the cost of a cost of production survey program.

- *Are Cost of Production surveys conducted by your country integrated into other statistical enquiries?*
- *If your country does not conduct Cost of Production surveys, are there farm surveys which might be modified to include cost of production data?*

### **The organizational and administrative structure for Cost of Production Surveys**

There are several ways that cost of production data can be collected and disseminated. Examples include the conduct of independent stand alone surveys, integrated collections (CoP questions combined into the ongoing statistical programs), collection of data using agriculture extension service workers, and the development of consensus CoP estimates from expert panels. All of these approaches will yield CoP estimates which vary in cost and quality.

- *Which approach is used in your country?*
- *Have you changed your approach through time and if so, what were the motivations for the change?*

### **Commodity coverage and frequency of conducting surveys for the commodities selected.**

Some programs collect CoP data each year, others collect data on an ad hoc basis, while yet others survey the data on a rotation basis. There are advantages and disadvantages to each approach. Collecting data for all commodities each year will necessarily be more expensive and impose a significant reporting load on respondents which in turn



could lead to respondent fatigue in the longer term. Notwithstanding this, data collected each year will yield accurate data and not be reliant on assumptions that are inherent in other approaches. Collecting data on a rotation basis reduces costs and response burden, but is dependent on having access to certain data points if one is interested in producing annual estimates. It also makes the implicit assumption that the farms production function is stable in the near term.

- *Which approach does your country use when collecting CoP data?*
- *If you collect these data less frequently than annually, do you attempt to model the data for which there was no data collection?*

### **Challenges and constraints encountered in conducting Cost of Production Surveys**

There are many challenges and constraints encountered when producing cost of production estimates. These range from the usual challenges associated with the conduct of national surveys (challenges with survey frames, questionnaire design, processing, non response, estimation) to unique issues associated with estimating the cost of production (matching input costs to specific commodities, dealing with joint or shared inputs, making assumptions on depreciating assets, opportunity cost estimation for capital and imputation for in kind consumption and labour supply. Clearly producing CoP estimates can add an additional layer of complexity to statistical organizations.

- *Which of these challenges do you find the most difficult to resolve?*
- *What does your organization do to meet these challenges?*
- *Do you maintain a center of expertise to deal with these issues?*

### **What recommended strategic actions could be proposed for the enhancement of CPS in the participant country.**

CoP methodology is well established having been built on years of academic and pragmatic research into making these programs better. The European Union and the United States Department of Agriculture have been calculating Cost of production for agriculture products in support of agriculture programs for decades. As recent as last August, there was a EuroStat sponsored conference on country experiences with cost of production. There were more than 20 participants representing Europe, North and South America, and New Zealand in addition to representation from several international organizations at this meeting. At the last AFCAS meeting, the FAO was asked to do some research into the CoP estimation for Africa and this meeting is but one step in line with that recommendation. All of this suggests that there is a growing interest if not need for CoP estimates to inform on decision making.

- *What do you believe should be the next steps of the way forward?*
- *Does your organization have an interest in more actively pursuing CoP estimation?*
- *Is there an interest in harmonizing differing concepts and methodology?*
- *Is there an interest in supporting a FAO methodology handbook to serve as the reference manual for the production of CoP statistics?*
- *Is there an interest in launching a pilot CoP survey to test methods and methodology?*
- *Can your organization lend support to such a test or pilot survey?*

## Annex 2: Agenda

November 28th to 29th 2011



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y la  
Alimentación

### FAO Expert Group Meeting on Cost of Production and Prices

Addis Ababa, Ethiopia, 28th to 29th November 2011

#### AGENDA

##### Day 1

- |               |   |
|---------------|---|
| 08:00 - 08:30 | Registration  |
| 08:30 - 09:00 | Opening and Administration  |
| 09:00 - 12:30 | Africa Statistics Day Celebration   |
| 12:30 - 14:00 | Lunch   |
|               | - Chairperson CSA/FAO/UNECA   |
| 14:00 - 14:15 | Opening of the Technical Workshop – Josef Schmidhuber and Dominic Ballayan (FAO)  |
| 14:15 - 15:00 | A Review of Country Practices in Ethiopia, Mali and Zambia – Peter Lys (Consultant, FAO)  |
| 15:00 - 16:00 | The USDA Commodity Costs and Returns (CAR) Estimation Project – William McBride (USDA)  |
| 16:00 - 16:30 | Coffee Break  |
| 16:30 - 16:45 | Introduction to the key issues related to Cost of Production statistics   |
| 16:45 - 18:00 | Key issues related to Cost of Production statistics   |
|               | <ul style="list-style-type: none"><li>• Activity / output coverage</li><li>• Compiling prices of purchased inputs / calculating input costs</li></ul> |

*Discussion and conclusion of day 1.*

## Day 2

09:00 – 09:10	ASSAR Project: Use of Hi-tech tools for price collection in Morocco – Mohammed Kamili (Department of Agriculture Morocco)
09:10 – 10:20	Methods of data collection of the costs of production and farm prices for field crops and vegetables in Egypt - Mamdouh Shawky (Ministry of Agriculture Egypt)
10:20 – 10:30	Cost of Production in Kenya – Abner INGOSI (Kenya National Bureau of Statistics)
10:30 - 10:45	Coffee break
10:45 - 11:30	Key issues related to Cost of Production statistics (Continued) <ul style="list-style-type: none"><li>• Input cost imputation</li><li>• Fixed cost allocation and shared inputs</li><li>• Opportunity cost of factors of production</li><li>• Calculating the cost of capital</li></ul>
11:30 - 12:30	Key issues related to Cost of Production statistics (Continued) <ul style="list-style-type: none"><li>• Designing a questionnaire for the CoP and an approach to collect data for collecting Cost of Production statistics</li></ul>
12:30 - 14:00	Lunch
14:00 - 15:00	Key issues related to CoP statistics (Continued) <ul style="list-style-type: none"><li>• Concepts, definitions and methodology in compiling CoP statistics</li><li>• Integrating CoP Surveys into existing agricultural sample surveys</li></ul>
15:00 - 17:00	Main conclusions and the way forward
17:00 - 17:15	Cost of Production Data in CountrySTAT, the case of Philippines – Naman Keita (FAO)
17:15 - 17:30	Closing of the workshop

### Annex 3: List of Participants

November 28th to 29th 2011

	منظمة الأغذية 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 Naciones Unidas para la Agricultura y la Alimentación
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#### FAO Expert Group Meeting on Cost of Production and Prices

Addis Ababa, Ethiopia, 28th to 29th November 2011

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