Global Strategy
IMPROVING AG-STATISTICS

Asia-Pacific Regional Action Plan to Improve Agricultural and Rural Statistics

2013-2017

The Regional Action Plan of the Global Strategy to Improve Agricultural and Rural Statistics was prepared following an extensive consultation process and represents a regional effort to improve countries' national agricultural systems to provide the basis for informed policy-making on poverty reduction, food security and sustainable natural resource management.

Improving Statistics for Food Security, Sustainable Agriculture and Rural Development

Asia-Pacific Regional Action Plan to Improve Agricultural and Rural Statistics

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Preface

The changing face of agriculture in the 21st century increased the requirements for agricultural statistics to extend beyond the traditional farm level data about production to data to monitor its essential roles in food security, sustaining the environment, and as a source of poverty reduction to meet the first Millennium Development Goal (MDG) which is to reduce poverty by half. Agricultural development, while seen as having an essential role in poverty reduction, is also seen as a contributor to global warming, water scarcity and pollution, and land degradation resulting from attempts to increase production to feed a growing world population—also impacting related MDGs. New data requirements are emerging to understand how population growth, demand for natural resources, competing uses of food crops, and the effects of extreme weather and climate change affect food security, poverty, and well-being. These critical issues are not independent of each other as an action in one area has consequences on others.

These emerging data requirements are occurring at the same time that the quality and quantity of agricultural statistics has eroded to the point that many countries lack the capacity to produce and report even the minimum set of data to monitor national trends or guide the international development debate.

The Global Strategy to Improve Agricultural and Rural Statistics (hereafter referred to as the Global Strategy) is the outcome of a three-year effort initiated by the UN Statistical Commission supported by the Food and Agricultural Organization of the United Nations (FAO), the World Bank, and an extensive consultation process involving national statistics offices, agricultural ministries, and other government and private institutions producing and using agricultural statistics. The Global Strategy establishes the frameworks to not only rebuild statistical systems producing agricultural statistics, but also to meet the emerging data requirements and the need to monitor cross cutting issues. As a result, the conceptual framework of the global strategy increases the scope of agricultural statistics to include aquaculture and fisheries, forestry, and land and water use in addition to the conventional treatment of agricultural production and rural issues. Hereafter, agricultural statistics refers collectively to all components in the broadened scope.

The "Action Plan of the Global Strategy to Improve Agricultural and Rural Statistics" (hereafter called the Global Action Plan) provides the international, regional and national governance and capacity building framework to rebuild sustainable national statistical capacity to produce agricultural statistics and be prepared to meet emerging data requirements. The capacity building effort will be accomplished by an intensive multi-year effort providing countries technical assistance and training to restore and build statistical capacity, and research to solve technical problems.

To support implementation of the Global Strategy in the Asia- Pacific region, the Committee on Statistics of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) at its second session in December 2010 endorsed FAO's proposal to initiate the development of a regional action plan. In this regard, the Committee requested the ESCAP secretariat to coordinate with the Food and Agriculture Organization Regional Office for Asia and the Pacific (FAO RAP), and establish a Steering Group on Agricultural Statistics (SGAS) to guide the development of the regional action plan. In May 2011, the Asian Development Bank (ADB) accepted the invitation from ESCAP Committee on Statistics to contribute to this endeavor. A regional partnership consisting of ADB, ESCAP and FAO RAP was thus established (henceforth referred to as "the implementing partners"). The Steering Group for Agricultural Statistics (SGAS) was established in August 2011.

The regional action plan described in this report was developed by the implementing partners under the guidance of the SGAS. The current document has undergone an extensive country consultation process and represents a joint regional effort to improve its agricultural and rural statistics to provide the basis for informed policy-making on poverty reduction, food security and sustainable natural resources management in Asia and the Pacific. The main body of the text was drafted by Fred Vogel (Technical Advisor) on the basis of an earlier draft produced by Isidoro David (Consultant), with significant inputs from Jairo Castaño (technical assistance component), Margarita Guerrero (training component) and Dalisay S. Maligalig (research component). The ADB team was supervised by Douglas Brooks, led by Dalisay S Maligalig and included Artur Andrysiak. The ESCAP team worked under the supervision of Haishan Fu, was led by Rikke Munk Hansen and included Margarita Guerrero, Habib Khan and Yanhong Zhang. The FAO team was led by Jairo Castaño and included Elisabetta Carfagna, Fred Baker and Anthony Burgard.

The SGAS that guided the preparation of the document was led by Romeo Recide (Chair) of the Philippines and Karpo Dukpa (Vice Chair) of Bhutan, and included Azizullah Faqiri of Afghanistan, Jacky Hodges and Helen Baird of Australia, Satya Ranjan Mondal of Bangladesh, Rajeev Lochan of India, Ardief Achmad and S Happy Hardjo of Indonesia, Masoud Asadi of the Islamic Republic of Iran, Kenji Kamikura of Japan, Fatimath Abdulla Saeed and Hussain Faisal of Maldives, Soe Win Maung of Myanmar, Alexey Gospodarev of the Russian Federation, Laupua Fiti of Samoa, R M Herath of Sri Lanka, Unchana Tracho of Thailand and Pham Quang Vinh of Viet Nam, Frances Harper of the Department for International Development of the United Kingdom, Ganesh Thapa of the International Fund for Agricultural Development, Gerald Haberkorn of the Secretariat of the Pacific Community, Vijay Kumar Bhatia of the Indian Agricultural Statistics Research Institute, and Hong Narit of the Asia and Pacific Commission on Agricultural Statistics. The SGAS members also included Douglas Brooks of ADB and

Jairo Castaño of FAO RAP. The substantial inputs provided by the SGAS in the preparation process of the action plan were through two meetings – one in November 2011 (Manila, Philippines) and the other in July 2012 (Bangkok, Thailand) – and an online meeting in April 2012, as well as numerous electronic consultations. The preparation process also benefited from a meeting on the drafting of the plan in May 2012 (Bangkok, Thailand).

List of Acronyms

Acronym	Definition
ADB	Asian Development Bank
ADP	Accelerated Data Program
APCAS	Asia and Pacific Commission on Agricultural Statistics
ARS	Administrative Reporting Systems
BAS	Bureau of Agriculture Statistics
BPS	Budan Pusat Statistik
CAF	Census of Agriculture and Fisheries
CAQ	Country Assessment Questionnaire
CARS	Community for Agricultural and Rural Statistics
CISSTAT	Interstate Statistical Committee of the Commonwealth of Independent States
CSF	Core skills framework
DFID	UK Department for International Development
DPR	Democratic People's Republic
ECO	Economic Cooperation Organization
ENEA	East and North-East Asia
ESCAP	the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)
ETC	Education and Training Centre
FAO	Food and Agricultural Organization of the United Nations
FAORAP	FAO Regional Office for Asia and the Pacific
GAP	Global Action Plan
GCP	Government Cooperation Programme
GDP	Gross Domestic Product
GEB	Global Executive Board
GIS	Geographic Information System
GPS	Global Positioning System
GSC	Global Steering Committee
GSO	General Statistics Office
HIES	household income and expenditure survey
ICT	Information and Communications Technology
IDA	International Development Assistance
IHSN	International Household Survey Network
ILO	International Labor Organization
ISCED	International Standard Classification of Education
ISEC	International Statistical Education Centre
ISI	Indian Statistical Institute
ITP	Institutional training providers
JICA	Japan International Cooperation Agency
KOSTAT	Statistics Korea
LFS	Labor Force Survey
LSMS	Living Standards Measurement Survey
MAPS	Marrakesh Action Plan for Statistics
MDG	Millennium Development Goals
MOA	Ministry of Agriculture
MODIS	Moderate Resolution Imaging Spectroradiometer
NBS	National Bureau of Statistics

Acronym	Definition
NCA	North and Central Asia
NSCB	National Statistical Coordination Board
NSDS	National Strategies for the Development of Statistics
NSO	National Statistics Office
NSS	National Statistics System
ODA	Official Development Assistance
PCT	Percent
PDA	Personal Digit Assistants
PDR	People's Democratic Republic
PPP	Purchasing Power Parity
PSRTI	Philippine Statistical Research and Training Institute
PSS	Philippine Statistical System
RAP	Regional Action Plan
RCO	Regional Coordinating Office
RSC	Regional Steering Committee
SAR	Special Administrative Region
SAS	Statistical Analysis Software
SCB	Statistical Capacity Building
SCI	Statistical Centre of Iran
SEA	Southeast Asia
SESRIC	Statistical, Economic and Social Research and Training Centre for Islamic Countries
SGAS	Steering Group for Agricultural Statistics
SIAP	Statistical Institute for Asia and the Pacific
SIDA	Swedish International Development Cooperation Agency
SPC	Secretariat of the Pacific Community
SPSS	Statistical Package for the Social Sciences
SRTC	Statistical Research and Training Center
SSO	Sectoral Statistical Offices
SSPARS	Sector Strategic Plans for Agricultural and Rural Statistics
SSWA	South and South-West Asia
STI	Statistical Training Institute
TA	Technical Assistance
TBD	To be determined
TNA	Standardized Needs Assessment
UNSD	United Nations Statistics Division
USD	United States Dollar
USDA	United States Department of Agriculture
WCA	World Census of Agriculture

I. Introduction

The Asia- Pacific Regional Action Plan to Improve Agricultural and Rural Statistics (hereafter referred to as the Regional Action Plan) represents a ground breaking effort with two essential goals:

- Halt the decline in the content and quality of agricultural production statistics by restoring sustainable systems to produce them and making use of new methods and technologies
- Meet the emerging data requirements to not only support policy decisions regarding the linkage of agriculture to poverty and the environment, but also to monitor how a decision in one area affects the others.

In order to meet these goals, the framework for the improvement of agricultural statistics is based on three pillars:

- The establishment of a minimum set of core data each country will produce on a sustainable basis and which are comparable across countries and time.
- The integration of agriculture into the national statistical system in order for the statistical system to meet both current and emerging data requirements. This integration will be achieved by the development of a master sample frame, integrating survey activities, and coordinating data dissemination.
- Ensuring the sustainability of the agricultural statistics system through building statistical capacity and improving governance and coordination across the institutions producing agricultural statistics.

The Global Action Plan provides the framework and steps for the implementation. The implementation of the Global Strategy is based on three statistical capacity building components—technical assistance, training, and research. The Regional Action Plan adapts these three components to meet its own needs and includes a component on advocacy to build support in the region for the improvement of agricultural statistics. The resources from the donor organizations are targeted on the capacity building effort. Therefore, the implementation of the Global Strategy in the Asia- Pacific also requires a commitment from the countries to provide a country specified minimum set of core data and support the integration of agriculture into the national statistical system. Advocacy efforts will be essential to ensure country commitment.

The implementation begins by establishing a regional governance structure that will support the statistical capacity building efforts at the country level by providing technical assistance, training, and research. The SGAS coordinated the development of the Regional Action Plan and served as an interim body until the formal regional structure was established. This regional structure includes a Regional Office and a Regional Steering Committee; responsibilities of each

are described in section II. Section II also describes the establishment of a coordination structure at the national level.

In order to facilitate the integration of agriculture into the national statistical system, the integration and statistical capacity building efforts will take place under the framework of the National Strategy for the Development of Statistics (NSDS) as developed by the Partnership in Statistics for Development in the 21st century (PARIS 21). The NSDS is a framework for the coordination of all statistical activities including international and bilateral assistance within a country. The NSDS provides the strategy for strengthening statistical capacity across the entire national statistical system. The NSDS process includes the development of sector strategies; specifically for agriculture, the Sector Strategic Plan for Agriculture and Rural Statistics (SSPARS). The SGAS noted at its second meeting that different countries refer to their statistical development strategies and plans differently, and that flexibility is required with regard to the format, process, scope, and terminology used during RAP implementation.

The next step is the assessment of each country's statistical output and ability to provide a minimum set of core data. A country assessment questionnaire was provided to regions with guidelines for a subsequent in-depth review. On the basis of the in-depth country assessments, countries will prepare country proposals. In support of country ownership and sustainability of efforts, the country proposals will be justified in the context of comprehensive national level plans to improve their agricultural statistics (sector strategic plans for agriculture), and integrate it into the national statistical system[1]. Section III describes the current status of agricultural statistics in the Asia - Pacific countries and provides a review of the findings from the first country response to the assessment questionnaire. Section IV provides the expected impact, outcomes and outputs of the Regional Action Plan. Section V presents the strategy that will guide the implementation efforts based on the National Strategy to Develop Statistics (NSDS) to ensure that the technical assistance, training, and research for the improvement of agricultural statistics take place in harmony with the rest of the national statistical system.

Section VI then provides the implementation steps starting with the in-depth country assessments to the development of Country Proposals for assistance. The role of advocacy in the implementation effort is discussed in Section VII and provides guidelines for the regional and national advocacy efforts. Section VIII describes the technical assistance, training, and research efforts to support the statistical capacity building for the implementation of the Global Strategy and place the statistical system on a sustainable basis. The Regional Action Plan concludes with how the monitoring and evaluation will be conducted and provides the budget and workplan.

[1] The country level sector strategic plan to improve agricultural statistics will thus constitute what has been referred to as "country action plans" by the SGAS in its first and second meetings.

II. Governance

The development community in the region has provided support in various forms to countries in the compilation and analysis of agricultural and rural statistics. In particular, the implementing partners for this action plan – FAO RAP, ESCAP and ADB, each have experience in collaborating with countries in the region.

FAO RAP engages countries mostly through the ministries of agriculture, forestry, fisheries, livestock, etc. Regarding agricultural statistics, FAO engages with the government agencies responsible for agricultural statistics, including National Statistics Offices, if appropriate through its country offices in member countries. The Asia and Pacific Commission on Agricultural Statistics (APCAS) is the highest regional forum for statistics offices in the ministries of agriculture.

The Committee on Statistics of ESCAP is the highest level regional forum for leaders of National Statistical Systems in Asia- Pacific to discuss matters of strategic importance to statistics development, promote regional cooperation to support national efforts, and formulate regional positions on major issues that influence global initiatives through the United Nations Statistical Commission. Its main contact with countries is through National Statistics Offices.

On the other hand, ADB deals with both ministries and NSOs and has country offices in a number of countries in Asia-Pacific. Some ADB business processes that may affect joint activities deviate from UN business processes followed by FAO and ESCAP.

A global, regional, and national governance structure will facilitate the implementation of the Global Strategy. Global and regional steering committees containing representatives from both countries and international organizations will be formed to serve as the ultimate decision makers guiding flows of funds from the global level to the regions and countries and provide overall coordination of activities. In the Asia- Pacific region, the regional steering committee will be established jointly by the APCAS and the ESCAP Committee on Statistics representing the integration of agriculture into the national system at the regional level. The regional steering committee will include representatives from ministries of agriculture and national statistical offices, implementing partners, and research and training institutes (see **Annex A**.)

A global office will be formed at the FAO headquarters. A regional office will be formed in the Asia-Pacific to coordinate the technical assistance, training, and research aspects of the implementation. The Global and Regional Coordinating Offices will also serve as the secretariat for the respective Global and Regional Steering Committees on Agricultural Statistics. In order to achieve the integration of agriculture into the national system, countries will be assisted in the organization of a national coordinating mechanism for agricultural statistics.

a. Regional Governance

The countries and sub-regions represented in the Regional Action Plan include the following four ESCAP subregions—South and South-West Asia; South-East Asia; East and North-East Asia, and the Pacific region. ESCAP has five subregions as listed in **Annex L**.

At the regional level, the SGAS is mandated by the ESCAP Committee on Statistics and APCAS to guide the development of the Asia-Pacific Regional Action Plan. The SGAS is supported by the regional partnership of ADB-ESCAP-FAO RAP in carrying out its functions.

The SGAS included experts from 16 countries and 9 international organizations. Its final role will be to advise on the membership of the Regional Steering Committee that will be formed in the latter part of 2012 by the APCAS and the Committee on Statistics.

The membership of the Regional Steering Committee on Agricultural Statistics (hereafter referred to as the Regional Steering Committee) will include one member from each of 8 countries—two from each of the four sub-regions identified above. There should be a balance of representation from National Statistical Offices and statistical offices in ministries of agriculture. It will also include representatives of ADB, FAO RAP, ESCAP, a statistical training institute, a statistical research institute, the Secretariat for the Pacific Community, and a donor organization.

The Regional Steering Committee for Agriculture Statistics will need to provide strong leadership in establishing a focal point for agricultural statistics at the regional level and set an example for countries also dealing with the same problem.

The Regional Steering Committee is the ultimate decision-making body at the regional level. It will provide guidance and oversight of the distribution of funds as requested by country proposals for capacity building support, and report to the Global Steering Committee on the coordination of the regional and country activities. The Regional Office will be hosted by the FAO RAP in Bangkok. Its major role is to coordinate the country assessments and the training, research and technical assistance to the integrated national statistical systems in the preparation or revision of Sector Strategic Plans and their implementation. It will guide the regional advocacy program and assist countries with their advocacy efforts. The Regional Office will also liaise with other international, regional, and sub-regional offices within their region to coordinate their support to countries, thereby avoiding duplication of efforts and ensuring that global standards are being followed (see **Annex B for the Terms of Reference**).

The Regional Office will work in collaboration with the ESCAP and ADB. The FAO RAP prepared the technical assistance component for the Regional Action Plan, and the ADB and ESCAP/SIAP (Statistical Institute for Asia and the Pacific), respectively, prepared the research and training components. The support to the countries for all components will be coordinated by the Regional Office which will seek input from the other implementing partners on the support needed for a specific country.

The Regional Steering Committee and the Regional Office will need to ensure the implementation efforts are coordinated with other development efforts also underway in the region. Specifically, the implementation of the Regional Program on Economic Statistics in many ways overlaps the goals of the Regional Action Plan. The principles guiding the National Strategies of Development of Statistics need to be followed to ensure both initiatives progress in harmony.

b. National Governance

The use of separate and parallel systems in many countries causes a duplication of scarce resources and end results that are different and therefore confusing to data users. This suggests that the first step in implementing the Global Strategy in countries is for them to determine how agriculture should be integrated into the national statistical system and if necessary revise the NSDS or its national statistics development plan to ensure the integration is in harmony with the rest of the national statistical system. Each country will face the question whether the different agencies are merged: should one take the lead, or should they coordinate their efforts using a National Statistics Council?

The Regional Action Plan suggests each country form a national statistics mechanism to coordinate the integration of agriculture into the national statistical system using the (NSDS) as the tool.

The mechanism for coordination will however be decided by each country. If possible, existing coordination mechanisms will be made use of rather than establishing new ones. The mechanism should be able to reach out to and involve all relevant subsectors (crops, livestock, fishery, forestry, environment, natural resources, etc).

The Regional Action Plan will not state which responsibilities fall on any agency in particular; it leaves the respective roles of the organizations for each country to decide. Technical assistance and training will be provided to assist in making this determination. The goal is to build off the strengths of the different organizations. While the national statistical office has experience with statistical methods, other ministries have more knowledge about agriculture, land use, forestry, and fishery. The Stakeholders' Analysis matrix in **Annex J** depicts the interests, problem perceptions, resources and mandates of national and regional stakeholders.

III. Current Situation in Asia-Pacific Countries

The Asia- Pacific region is home to over 4.2 billion people, representing 61% of the total world population[2]. Despite the overall high economic growth that this region experienced in the last decade, progress in many countries is uneven. Rising inequality between rural and urban areas is also[3] becoming more prominent. In the only two countries in the world with population that exceeds 1 billion and which belong to this region -- China and India- the incidence of poverty in rural areas is significantly higher than in urban areas, with 22.3% compared to 0.9% in China (2008, World bank) and 34.3% and 28.9% for India (2009, World bank), respectively.

While poverty rates in the region are declining, a large number of people still live in poverty as shown by Chen and Ravallion (World Bank 2012) and summarized in the following table. Note that a significant number of people live at or below the $1.25 and $2.00 dollars per day benchmarks to monitor poverty.

Table 1. Poverty measures at $1.25 and $2.00 per day by region for 2008[4].

Percentage of Population below poverty lines in 2005 PPP		
Region	$1.25 per day	$2.00 per day
East Asia and Pacific	14.3 %	33.2 %
South Asia	36.0 %	70.9 %

Source: Chen and Ravallion, World Bank 2012

The aquaculture and fisheries subsector is an important source of livelihood and protein for people in the world where fish provides about 4.3 billion people with at least 15 % of their intake of animal protein. In 2009 there were 126 million tons of fish available for human consumption and Asia accounted for two-thirds of total consumption. There will be increases in capture fisheries and over the next decade aquaculture production is expected to rise by 33%. Asia produced 89 % of the world aquaculture production in 2010. Inland water capture production is a hidden food security asset particularly in the interiors of Asia, and is often overlooked or ignored. Its growth is continuous, although there are great challenges in estimating production. Developing countries will continue to account for about 67% of world fish exports[5].

Despite the accelerated urbanization that started two decades ago, 57% of this region's population continues to live in the rural areas[6], in which agriculture is the major source of

[2] Statistics sourced from the ESCAP Statistical Yearbook 2011 http:www.unescap.org/stat/data/syb2011/ index.asp
[3] Asian Development Outlook 2012
[4] World Bank classification of regions: http://www.worldbank.org/depweb/beyond/beyondco/beg_ce.pdf
[5] Chapter 8 Fish. OECD/Food and Agriculture Organization of the United Nations (2012), *OECD-FAO Agricultural Outlook 2012*, OECD Publishing
[6] 2011 Statistical Yearbook for Asia-Pacific
http://www.unescap.org/stat/data/syb2011/I-People/Urbanization.asp

livelihood and subsistence. A quick study of the relationship of agriculture and poverty, using the 1995 and 2010 poverty incidence and growth of the agriculture sector for many countries in the region, shows that poverty rates of countries that have higher agriculture sector growth declined faster. This suggests that implementing policies that can foster higher growth in the agriculture sector may lead to poverty reduction. The 2008 World Development Report "Agriculture for Development" (World Bank 2008) relates evidence that growth in GDP that originates in agriculture is at least twice as effective in reducing poverty as growth originating in other sectors.

The region is a major producer and consumer of rice, wheat, and maize. Timely and reliable production statistics are needed because these commodities are traded in world markets with price volatility increasing as the levels of uncertainty about supplies also increases. The region shares issues facing the rest of the world about the affect of agriculture on the environment as policy makers seek answers to feeding a growing population.

A recent Asian Development Bank report states that climate change is a major contributing factor in the battle to provide food security in Asia and the Pacific. It states that growing pressure on ecosystems to produce food, as well as changing temperature and precipitation patterns, will have unpredictable and deleterious effects on existing food-producing resources.[7]

a. Countries Diverse in Size and Statistical Capacity

The current state of the availability of agricultural and rural statistics at the national level is best described as a wide spectrum that also corresponds to the wide range of economic development across the region with a group of highly industrialized countries, middle income countries, some that are in various points of transitioning from a centrally planned to a market economy, small island economies, very weak and fragile states, and less developed economies.

Highly industrialized or high income countries and territories of the region include Australia; Brunei Darussalam; Hong Kong, China; Macao, China; Taiwan Province of China; French Polynesia; Guam; Japan; Republic of Korea; New Caledonia; New Zealand; Northern Mariana Islands; and Singapore. Singapore and Hong Kong, China have a very small agricultural sector and hence, have fewer requirements for agricultural and rural statistics. On the other hand, economies like Japan, Australia, and New Zealand, with a substantial agricultural sector, have very good agricultural data support systems. In fact, Japan has been a significant provider of statistical assistance to many countries in the region while Australia and New Zealand concentrate their assistance on Pacific island countries. Australia, Japan, and New Zealand, however, also face the challenge of providing data for the emerging requirements to monitor the environment and land and water use.

Lao PDR, and Viet Nam are good examples of those countries in which the old and well entrenched administrative reporting systems (ARS) continue to exist alongside developing

[7] Asian Development Bank, (2012), "Food Security and Poverty in Asia and the Pacific—Key Challenges and Policy Issues. ISBN 978-92-666-5

sample survey systems. Viet Nam's Ministry of Agriculture and Rural Development maintains a database of 230 indicators based largely on the ARS. In 2010 the Prime Minister approved a national indicator system composed of 350 indicators, to be compiled and maintained by the General Statistics Office (GSO). These indicators come from the other ministries and from GSO's sample surveys and censuses. Indicators mainly from the ARS are used by the Ministry of Agriculture for program monitoring and forecasting; the GSO indicators, particularly those from surveys and censuses, often have more than a year time lag, and are unavailable when needed by the Ministry of Agriculture. The GSO-maintained indicators, by law, are the official indicators and are the ones used to service international requests.

The first agricultural census of Lao PDR was led by the Department of Statistics with active collaboration with the Ministry of Agriculture and Forestry, and the second one was led by the Ministry of Agriculture and Forestry with the collaboration of the Lao Statistics Bureau (previously called the Department of Statistics). All other agricultural statistics are from the Ministry of Agriculture and Forestry, most of which are derived from the ARS. The capability of the Lao Statistics Bureau to conduct sample surveys is still at an early developmental stage. These provide two typical examples where the output of the statistical system needs to be coordinated because of the different sources for the data.

Lower and upper middle income countries of the region such as – China, India, Malaysia, Indonesia, Thailand, and the Philippines – have vibrant and largely self-financed statistical systems. Some, also still rely on a form of the Administrative Reporting System. China and India, for example, both still rely on the ARS but also have national level surveys. Full ownership and commitment to their statistical systems has been amply demonstrated in these countries; and they are capable of sourcing technical assistance needs through technical cooperation among developing countries. The Regional Action Plan provides the framework for improving the statistical systems in these countries which are in varying stages of development.

The small island countries and territories in the region require approaches to addressing their statistical development needs that are sufficiently different from those suitable for the rest of the region. Their size and isolation make the provision of assistance to them and statistical data collection activities by them very costly. This calls for judicious selection of the type of assistance and weighing of costs vis-à-vis periodicity of the statistics production, particularly since change in these countries and territories is relatively slower. The Ten-Year Pacific Statistics Strategy 2011-2020 plans the inclusion of agriculture modules in ongoing surveys and census of agriculture[8].

The Secretariat for the Pacific Community (SPC) coordinates the implementation of the Ten-Year Pacific Statistics Strategy for the development of the capacity of the sub-region to produce statistics. SGAS further recognized the important role that the Secretariat plays in the implementation of the Ten-Year Pacific Statistics Strategy and as such recommended that any

[8] http://www.spc.int/sdp/index.php?option=com_docman&task=cat_view&gid=75&Itemid=42&lang=en

implementation in the Pacific sub region (including any assessments) be fully coordinated with the SPC.

Some least developed and low income countries in the region, such as Bhutan, Myanmar and Nepal are still heavily dependent on external financing for much of the needed censuses and surveys. The priority here is to get the governments to demonstrate ownership/commitment to their statistical service by taking over the financing of their censuses and surveys. This is a necessary condition for a strategy for statistical development to be sustainable. In Nepal and Bhutan, for example; the weak capacity of the main national statistics agency to produce timely and comprehensive agricultural statistics from sample surveys left the agriculture ministry to maintain the national agricultural database, largely using data from an administrative reporting system (ARS). The implementation plan for these countries needs to recognize that this will take a long term investment in capacity building that begins with building the infrastructure including staff and methodology that can grow and improve as experience is gained.

There are also fragile states in the region countries in the region that had gone through or are still suffering from prolonged internal strife, like Afghanistan. The priority in these countries is to rebuild the capacity of the statistical service and to work towards an environment conducive to viable and safe data collection activities. Unfortunately, the latter is beyond the control of the statistical service and the development partners.

b. Country Assessment

The Asia-Pacific region has initiated efforts to evaluate the statistical capacity of its countries. The "Report on Preliminary Assessment of Country Capacity to Produce Agricultural and Rural Statistics" was prepared by FAO RAP and presented to the Steering Group for Agricultural Statistics in July 2012. The preliminary assessment was based on a country assessment questionnaire prepared in the mid-2000s by the FAO Regional Office for Asia and the Pacific and adapted by the FAO Statistics Division in collaboration with partners from the African and Asian regions. The final questionnaire also reflected input from the SGAS. The immediate objective of the country assessment was to examine country capacity to produce a minimum set of core data with a sustainable statistical system. This first assessment served as a basis for the preparation of technical assistance, training, and research programs. This preliminary assessment will be followed by in-depth in-country assessments that will lead to each country preparing Country Proposals for technical assistance, training, and research as needed.

Table 2 below from the preliminary assessment report provides a summary of the critical characteristics of a statistical system by category of country. The summary data are based on the countries responding to the questionnaire[9].

[9] It should be noted that the responses were often incomplete for several reasons; one of which was that responses were not always coordinated where agricultural statistics are produced by both the national statistical office and another ministry such as ministry of agriculture.

While most countries have a statistics law, not all include agriculture. Not every country has an NSDS in place and a smaller number have a process in place to coordinate activities producing agricultural statistics across the national statistical system[10].

Only slightly over half of the countries have conducted an agricultural census since 2001. This raises the question for these countries whether they need to use alternative methods to develop a sample frame for agricultural statistics. Data are available for less than half of the global set of minimum core items. This does not take into the account that not all core items will be relevant for every country.

Table 2: Summary of critical characteristics of some Asia-Pacific subregions[i]

Sub-region[ii]	Number of Countries	Number[i] Reporting	Stat Law[iii]	Stat Law /w Agric[iii]	NSDS[i] [iii]	Coord. "Board" [iii]	Agric Census after 2001	Ave PCT Core items	Ave PCT Priority items
Southeast Asia	10	10	100	80	70	70	60	42	77
South and Southwest Asia	10	9	100	78	72	44	67	51	78
North/ Central Asia	9	7	100	86	100	43	57	48	85
East Asia	7	5	100	60	80	40	60	47	82
Pacific	19	8	100	75	50	13	63	21	38
Developed	3	3	100	100	100	100	100	53	89
Region	**58**	**42**	**100**	**79**	**75**	**48**	**64**	**44**	**75**

i: Some countries reported minimal or partial information, but did respond to the request for a Country Assessment Questionnaire.

ii: Sub regions within Asia-Pacific are defined as those observed by FAORAP. Countries which did not fall under the mandate of FAORAP were categorized according to the sub-regional groupings used by ESCAP (as per Annex L). As a result, sub-regional groupings used for this table include- Southeast Asia: Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor Leste, Viet Nam; South and Southwest Asia: Afghanistan, Bangladesh, Bhutan, India, Iran, Maldives, Nepal, Pakistan, Sri Lanka, Turkey; North/Central Asia: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, Turkmenistan, Uzbekistan; East Asia: China, China Hong Kong SAR, China Macao SAR, Democratic People's Republic of Korea, Mongolia, Republic of Korea, Taiwan Province of China; Pacific: American Samoa, Cook Islands, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Micronesia, Nauru, New Caledonia, Niue, Northern Marianas, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu; Developed: Australia, Japan, and New Zealand.

iii: Presented as a percent of countries reporting.

[10] The number of countries reporting the existence of an NSDS may be an underestimate if the response to the preliminary assessment came only from outside the national statistical office for some of them.

The country assessment questionnaire listed constraints countries face in providing agricultural statistics and asked each country to score the degree of the constraint as shown at the bottom of table 3. The most serious constraints are the number of professional staff, their technical skills, and access to up to date information technology hardware and software. Other areas such as sound methodology and political support are also constraints.

Table 3: Constraints on Agricultural Sector Statistics[i]

	Southeast Asia[ii]	South and Southwest Asia[ii]	North/ Central Asia[ii]	East Asia[ii]	Pacific[ii]	Developed[ii]
No. of **professional staff at headquarters** for statistical activities	3.00	3.33	2.67	3.00	3.43	1.00
Technical skills of the available statistical staff	2.00	2.50	2.17	3.00	3.14	1.00
Turnover of **professional staff.**	2.17	3.33	2.50	3.00	3.17	1.00
Transport equipment for field activities	2.50	3.50	2.33	3.00	3.00	1.00
Funds for field-oriented statistical activities vis-à-vis plans.	3.50	2.83	3.00	3.33	3.00	1.00
Up-to-date information **technology hardware**	3.50	2.50	2.00	2.67	2.57	1.00
Up-to-date information technology **software**	3.17	2.33	2.17	2.67	2.86	1.00
No. of **field workers** for statistical activities	2.67	2.83	3.50	3.33	2.86	1.00
No. of **professional staff in the field** for statistical activities	2.83	2.67	3.50	3.00	2.86	1.00
Sound **methodology** implemented for agricultural surveys	2.50	3.67	3.17	2.33	3.17	1.00
Building space for office	2.67	3.50	3.00	2.67	3.00	1.00
Appreciation at the policy-making level for importance of statistical activities	2.83	2.00	2.50	2.00	3.67	1.00
Support at political level in the Government for statistical activities	3.17	2.50	2.33	2.67	3.43	1.00
No. of **support staff at headquarters** for statistical activities	2.83	1.67	2.17	3.00	3.00	1.00
Level of **demand for statistics**	2.83	2.83	2.67	2.67	4.00	1.50

i. 1=No constraint; 2=Little constraint; 3=Relative constraint; 4=Significant constraint; 5=Dominant constraint

ii. Sub regions within Asia-Pacific are defined as those observed by FAORAP. Countries which did not fall under the mandate of FAORAP were categorized according to the sub-regional groupings used by ESCAP (as per Annex L). As a result, sub-regional groupings used for this table include- Southeast Asia: Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Thailand, Timor Leste, Viet Nam; South and Southwest Asia: Afghanistan, Bangladesh, Bhutan, India, Iran, Maldives, Nepal, Pakistan, Sri Lanka, Turkey; North/Central Asia: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, Turkmenistan, Uzbekistan; East Asia: China, China Hong Kong SAR, China Macao SAR, Democratic People's Republic of Korea, Mongolia, Republic of Korea, Taiwan Province of China; Pacific: Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu; Developed: Australia, Japan, and New Zealand.

iii: Some countries reported minimal or partial information, but did respond to the request for a Country Assessment Questionnaire.

c. Technical Constraints

Many crop production data and other agricultural data series in the region come from administrative reporting systems in which government agricultural personnel assess crop production by observing harvests and by interviewing experts (village heads, farmers, traders) in their assigned localities. Summary statistics from lower levels of government are then transmitted up the hierarchy until they reach the national level. While this data collection approach, compared to censuses and surveys, is less expensive and can provide timely data, research has shown that it is prone to large measurement errors. Data collection officers and others involved in the process have vested interests that influence the estimation process. Agricultural officers tend to over or under-report production in their assigned areas to support their claims of accomplishment.

Administrative reporting does not usually include a validation process that could improve the quality of estimates; nor is it possible to compute objective measures of statistical error. And because only aggregated statistics are available, analysis at the household or farm level is not feasible. The possible links of land and cultivation practices, availability of irrigation, new technology, and the availability of credit, to poverty cannot be determined. Households that are food insecure cannot be accurately profiled and vulnerable areas identified. In general, data-intensive analysis that can inform policy and contribute to better development outcomes in the long term is not forthcoming.

On the other hand, such administrative reporting if properly structured can provide timely, early warnings of rapidly changing conditions as described in "Tracking Results in Agriculture and Rural Development in less-than-ideal conditions: A Sourcebook of Indicators for Monitoring and Evaluation" (FAO and the World Bank 2008")[11]. Rapid assessment techniques should not be dismissed as long as they are used in tandem with other more objective methods.

Only 25 of 59 countries and territories in the region have regular, nationally representative sample surveys for collecting agricultural statistics and only about half conduct an agriculture census every 10 years. The majority of the agricultural sample surveys are conducted in the agriculture ministry, while the agriculture censuses are produced by the national statistics office. In fact, 18 have irregular data collection systems that depend mostly on the availability of external funding and the remaining 16 reporting countries either do not conduct any household surveys at all or there is no information on surveys in their websites.

d. Institutional Constraints

National statistics laws usually assign censuses to the national statistics office (NSO). In decentralized statistical systems, former or still centrally planned economies, and in countries where the National Statistics Office has been unable to deliver the needed agricultural statistics

[11] Global Donor Platform for Rural Development, FAO and World Bank (2008). Tracking Results in agriculture and rural development in less-than-ideal conditions: A sourcebook of indicators for monitoring and evaluation.

on time, the rest of the national agricultural database contents except for the agriculture census are produced and maintained by the agriculture ministry. In such cases, even where there is an NSDS in place, it may not include agricultural statistics which remains outside the national statistical system.

In some countries, the National Statistics Office and the agriculture ministry maintain separate and parallel data collection systems down to local government units. The use of separate and parallel systems causes a duplication of scarce resources and end results that are different and therefore confusing to data users.

e. Summary of the Main Challenges

The countries in the Asia and Pacific region are diverse in size, institutional structures, and statistical capabilities. The main challenges will be to deal with the integration of agriculture into the national statistical system, adding the methodology to support survey based data collections to reduce and/or improve the use of the Administrative Recording Systems, and building the capacity of the national statistical system to produce not only traditional agricultural statistics but also those representing the enlarged scope of agriculture and other emerging requirements..

The next section presents the impact, outcome and outputs, to be realized from the implementation of the Regional Action Plan, designed to address the above challenges.

IV. The Plan—Impact, Outcomes and Outputs

The intended impact of the implementation of the Regional Action Plan is to promote evidence-based policies and programs for poverty reduction, increased food security, and sustainable natural resources management. These are in line with the Millennium Development Goals to "Eradicate extreme poverty and hunger" and "Ensure environmental sustainability". In the context of the plan, evidence means mainly, though not exclusively, quantitative information or statistics. And statistics will be used also to monitor and evaluate the same policies and programs.

The expected outcome is a significant increase in the availability and quality of agricultural and rural statistics, produced by a sustainable agricultural statistical system with appropriate institutional, human and financial capacity. Availability means the statistics are produced and are easily accessible; quality includes accuracy and timeliness; and relevance has bearing on the needs, such as data that allow broader analysis of economic, social and environmental issues and new data requirements that may emerge during the plan's implementation period. Timeliness is crucial for many data elements concerning food security and to deal with price volatility. A sustainable agricultural statistics system will be pursued through the coordination and integration

of agriculture into the national statistical system, and an increased number of people with the appropriate skills to use cost effective and appropriate statistical methods.

The outputs are:

A. **Regional governance structure in place.** The Regional Steering Committee has been formed and the Regional Office in the FAO RAP is staffed with resources for the implementation.
B. **Country Assessments and determining set of Core data**. Country-specific minimum set of agricultural and rural statistics identified by each country using the minimum set of core data contained in the Global Strategy as the basis.
C. **Integration of Agriculture into the National Statistical System using the NSDS.** Sector Strategic Plans for Agricultural and Rural Statistics (SSPARS) as a component of the (NSDS) provide the national framework for implementation.
D. **Improved political support for agricultural statistics.** Improved political support by decision-makers for agricultural and rural statistics in terms of provision of budget and resources.
E. **Strengthened legal and coordination mechanisms and frameworks** for agricultural and rural statistics.
F. **Advocacy.** Enhanced capacity of NSS to advocate for adequate resources for developing and compiling country-specific minimum set of agricultural and rural statistics on a sustainable basis.
G. **Increased ability of NSS to access and use ICT** for production and dissemination of minimum set of agricultural and rural statistics.
H. **Improved competencies of NSS** to produce and disseminate minimum set of agricultural and rural statistics in accordance with international standards and good practices through training and technical assistance.
I. **Strengthened capacity of national and regional training institutions** to develop and deliver relevant, efficient and effective training in agricultural and rural statistics
J. **Improved capacity of countries to adopt cost effective and reliable methods** for producing minimum set of agricultural and rural statistics.
    J1. Improved ability of countries **to adopt** methodological research results guidelines and frameworks for agricultural and rural statistics.
    J2. Better **access** of countries to methodological research results, guidelines and frameworks for agricultural and rural statistics.
K. **Increased capacity to use statistics for policy making.** Increased capacity of countries in the use of agricultural statistics to meet priority needs for policy making, operation of efficient, markets and foster sound investments.

Recognizing the differences in statistical capacities and systems among countries in the region, the inputs-outputs mix needed to achieve the target outcome and impact have to be put together into country - specific action plans. It is understood that the countries will be starting at different benchmark situations and hence, will progress towards the target outcome and impact at different speeds. The logical framework summarizing impact, outcome and outputs and their indicators, means of verification and risks for monitoring purposes is in **Annex K**.

The Regional Action Plan will contribute to the achievement of the Global Action Plan. The following table groups the outputs of the Regional Action Plan by the four outputs of the logical framework of the Global Action Plan:

Table 4 Mapping of RAP Outputs to the GAP Outputs

Outputs of the GAP mapped to the outputs of the RAP

GLOBAL OUTPUTS AND REGIONAL OUTPUTS
Global Output 1: Effective governing bodies set up and functioning at global and regional levels **Regional** Output: **A. Regional governance structure in place.** The Regional Steering Committee has been formed and the Regional Coordinator Office in the FAO RAP staffed with resources for the implementation.
Global Output 2: Coordinating bodies of the national statistical system, legal frameworks and strategic plans established (by the target countries) in the target countries, to enable integration of agriculture into the national statistical system **Regional** Output: **C. Integration of Agriculture into the National Statistical System using the NSDS.** Sector Strategic Plans for Agricultural and Rural Statistics (SSPARS) as a component of the (NSDS) provide the national framework for implementation. **D. Improved political support for agricultural statistics.** Improved political support by decision-makers for agricultural and rural statistics in terms of provision of budget and resources. **E. Strengthened legal and coordination mechanisms and frameworks** for agricultural and rural statistics. **F. Advocacy.** Enhanced capacity of NSS to advocate for adequate resources for developing and compiling country-specific minimum set of agricultural and rural statistics on a sustainable basis. **K. Increased capacity to use statistics for policy making.** Increased capacity of countries in the use of agricultural statistics to meet priority needs for policy making, operation of efficient, markets and foster sound investments.
Global Output 3: New cost effective methods for data collection , analysis, dissemination developed and disseminated

Global Output 4: Increased capacity of agricultural statistics staff in regional training centres and target countries

Regional Output:

B. Country Assessments and determining set of Core. Country-specific minimum set of agricultural and rural statistics identified by each country using the minimum set of core data contained in the Global Strategy as the basis.

G. Increased ability of NSS to access and use ICT for production and dissemination of minimum set of agricultural and rural statistics.

H. Improved competencies of NSS to produce and disseminate minimum set of agricultural and rural statistics in accordance with international standards and good practices through training and technical assistance.

I. Strengthened capacity of national and regional training institutions to develop and deliver relevant, efficient and effective training in agricultural and rural statistics

J. Improved capacity of countries to adopt cost effective and reliable methods for producing minimum set of agricultural and rural statistics.

J.1. Improved ability of countries **to adopt** methodological research results guidelines and frameworks for agricultural and rural statistics.

J.2. Better **access** of countries to methodological research results, guidelines and frameworks for agricultural and rural statistics.

V. Implementation Strategy

The implementation strategy is centered on the three pillars presented in the Global Strategy and the regional effort to provide technical assistance, training, and research to support the implementation at the national level. The key words in the three pillars are "minimum set of core", "integration of agriculture into the national statistical system", and "sustainability through governance and capacity building". The pillars are inter-related as are the technical assistance, training, and research activities to support the implementation.

The most significant recommendation of the Global Strategy was that agriculture be integrated into the national statistical system. As the PARIS 21 National Strategies for the Development of Statistics (NSDS) provides the framework for the integration of all statistical activities within a country, it will provide the mechanism for the integration of agriculture into the national statistical system.[12] It introduces the concept of a National Statistical System which is applicable when official statistics are produced and disseminated by more than one agency. This requires a broad view of the national statistical system bringing in all agencies producing statistics including the National Statistics Office.[13] From the agriculture point of view, the implementation strategy should include all activities related to agricultural statistics within the National Statistical System including all data collection, analysis, dissemination and use from censuses, surveys and administrative systems, as well as the mechanisms for the coordination. A final concept regarding the NSDS process is that it be country driven by its sector strategic plan for the implementation stages and country proposals for technical support, training, and research. The NSDS structure is to be followed to ensure the integration of agriculture into the national statistical system is done in harmony with other sectors in the national statistical system.

Therefore, the first step in the implementation strategy will be for a country to determine a coordination structure that will bring input from all sectors producing statistics related to agriculture. This can be an interim mechanism to begin the implementation process. The Regional Action Plan is essentially a statistical capacity building effort. Donor resources are available to support the in-depth country assessments, the development or revision of the Sector Strategic Plans and the technical assistance, training, and research that will follow. The implementation in each country will be dependent on the country's political will to obtain the resources to put the implementation on a sustainable basis.

a. The Three Pillars The following paragraphs provide the implementation strategy for the three main pillars of the Global Strategy.

[12] PARIS 21 (2004), "A Guide to Designing a National Strategy for the Development of Statistics" PARIS 21 Secretariat and the OECD.

[13] Also referred to as Central Statistics Office, National Statistics Bureau, National Statistics Agency, etc.

Pillar 1 Minimum set of Core Data

A core data item is one needed for a multitude of indicators needed to monitor food security, development policies, and progress towards meeting the MDGs. For example, core crop data items should be those that account for a major share of land use, contribute significantly to well-being, and have a possible effect on the environment. The "minimum set of core" represents a concept that all stakeholders within a country agree on the data elements most important to policy makers, to ensure markets work efficiently, and sound investments for economic growth are made.

The FAO data base contains several hundred crop and livestock items, aquaculture, fishery products, forestry, agricultural inputs, land cover, and public expenditures. However, only 10 crops and 4 livestock species account for 95 percent of the world's production of cereals, meat, and fiber; therefore, these become part of the global set of core items.

Each country through its national coordination structure will define its minimum set as drawn from the set of global core. Countries are further encouraged to include items not in the global set of core, but relevant to their situation. This will ensure that country-defined core data contain statistics of relevance to each country, but based on standards concepts, definitions, and methodology to ensure harmonization and comparability across countries.

The development of the minimum set of core items needs to take into account the concept of "sustainability" which simply means the country must also commit to providing the resources to produce the data on a timely and regular basis and also commit to the goals of the Global and regional strategies to improve agricultural statistics. The donor funds supporting the implementation of the Regional Action Plan are for technical assistance, training, and research, not data collection.

Governments may choose to rely on international agencies for financing of surveys and censuses so that urgently needed agricultural data to support policy analysis can be obtained. This approach will not be sustainable in the long term, however.

Pillar 2 Integration of agriculture into the national statistical system

The extensive input from policy makers and data users in the process of developing the Global strategy pointed to several emerging data needs; for example, measures of agricultural household adaption to land management, water use, and investment issues related to climate change and how these affect poverty and food security. These and other emerging needs can best be met by integrating agriculture into the national statistical system. The methodological framework and long term goal for the integration of agriculture into the national statistical system includes the development of a master sample frame, an integrated survey framework, and a data management system. The master sample frame is the centerpiece of the integration pillar in the Global Strategy. The underlying reasons for establishing a common sample frame are:

- Where more than one organization is involved in collection of data, often for the same items, different results are obtained because concepts, definitions, and classifications are different.
- Where more than one organization continues to produce data, they should both operate from the same master sample frame using standard concepts and definitions.
- Because the long term purpose of establishing a master sample frame is the need to link the economic and social dimensions of agriculture with those relating to land cover and other environmental issues.

How a Sample Frame becomes a Master Sample Frame.

*A sample frame for agricultural statistics becomes a "master sample frame for agricultural and rural statistics" when it is constructed in such a way that all survey based statistical needs for agricultural statistics are met for all providers in the national statistical system***.**

The Global Strategy provides a wide range of methodologies to develop a master sample frame ranging from the use of population and/or agricultural census materials to area frames. Once the master frame has been developed, it should be possible for different institutions in the national statistical system to access the frame for survey purposes and data collection results, for data analysis. The master sample frame is a means to coordinate data collections across sectors producing agricultural statistics.

The integrated survey framework is also a concept bringing together data collections to enable cross cutting analysis. Because of the diversity of agriculture, often separate samples are selected for crops and for livestock species. The dilemma is that a farm or household selected for a crop survey may have livestock species or other characteristics being measured in other surveys. Since the samples are independent, it is not possible to examine the characteristics or well being of farms with livestock compared to crop only farms. The integrated survey framework also points to the need to consider administrative data, remotely sensed data, inputs from community surveys, and expert judgment.

The final part of the integration of agriculture into the national statistical system is a data management system. This is simply the concept that all agricultural statistics within a country be harmonized, so that there is one official number for each data element. The purpose is to fulfill three functions—access to official statistics for dissemination purposes, storage and retrieval of survey results, and access to data for research and analysis. The FAO CountrySTAT provides a useful model.

Pillar 3 Sustainability of agricultural statistics through governance and statistical capacity building

Not all countries have an operational NSDS, others may have an NSDS in place, but it does not include agricultural statistics. Some countries may have a national statistics development plan that may also include agriculture. The main point is that each country should commit to

developing or updating its Sector Strategic Plan component of the NSDS to facilitate integration of agricultural statistics into the national statistical system and also if needed Country Proposals to seek resources for technical assistance, training, and/or research.

The key activities can be grouped into the in-depth country assessment, the development of the country level action plan within the framework of the NSDS, advocacy, technical assistance, training, and methodological research. Advocacy includes the development of communication strategy promoting the regional action plan in intergovernmental bodies through fora and preparation of advocacy materials, and soliciting support to country and regional action plans at the regional and country levels.

b. Overview of Technical Assistance, Training and Research

Technical assistance involves a long-term engagement with countries in assisting them in identifying a minimum set of core statistics, and in developing (or updating) and implementing a Sector Strategic plan. This would involve support for stakeholders' consultation meetings, provision of technical advice for adopting cost-effective and reliable data compilation methods identified by research, support for strengthening or establishing the legal framework and coordination mechanism, establishment of CountrySTAT or equivalent modality for organizing, managing and disseminating the minimum core statistics. The guiding principle for technical assistance is to help the country do the work itself, and not to do the work for them.

Assistance will be provided to countries to develop their sector strategic plans. This plan will specify how the Global Strategy will be implemented at country level. Country Proposals, if needed, will spell out the need for technical assistance, training, and research. Country proposals may include developing or updating the sectoral (SSPARS) component of the NSDS to facilitate integration of agricultural statistics into the national statistical system, to guide implementation, and to determine the requirements for technical assistance, training, and research. In many countries the development of the Sector Strategic Plans and Country Proposals will be an iterative process with the first Country Proposal and training needs assessments spelling out assistance needed to develop the Sector Strategic Plans.

Training includes the development and implementation of standardized training curricula/modules based on country needs assessments. Training will be directed to managers and technical staff in the national statistical system responsible for agricultural statistics. It will focus not only on the production of statistics, but also for their use by different stakeholders. The guiding principle for training is that every country should have a strategy to improve the skills and competencies of its technical staff and sustain the skills over time.

Research. As specified in the Global Action Plan, research on methods will be coordinated by the Global Office which will identify the best regional research institutions to undertake them. To complement this approach and to encourage the participation of national statistical systems in the Asia-Pacific, methodological research and data validation studies, including comparison of administrative reporting system and sample survey results, will also be undertaken in the region.

In addition, research on issues that are specific to groups of countries in the region will be supported at the regional level.

VI. Implementation Steps

The starting point in the implementation is to carry out country assessments which will involve two stages.

This first stage assessment has been undertaken in the Asia-Pacific region as described in the "Report on Country Capacity to Produce Agricultural and Rural Statistics". It was particularly challenging to interpret the results for countries with decentralized statistical systems where it was not clear if the assessment reflected both the national statistical office and the ministry of agriculture and other institutions representing fishery and forestry. Countries with weak statistical capacity also had difficulty completing the assessment. That points to the need to provide technical support for the in-depth assessment which becomes the second stage.

The in-depth country assessments serve two purposes, the first of which is to have baseline information on the capacity of each country to produce a minimum set of core data on a sustainable basis. The other purpose is to provide the national statistical systems and the implementing partners with the information they need to design and deliver technical assistance, training, and research support.

a. Pilot Phase

Rather than waiting on the completion of all country assessments, a small number of pilot countries will be selected representing a variety of agricultural statistics systems to enhance the preparation of the technical assistance and training materials that will be made available to all countries. The criteria to determine the pilot countries are: have the political will and commitment to implement the Regional Action Plan, the importance of agriculture, and the need for assistance. The selection process will ensure the countries represent a variety of national statistical systems. The chair of the interim Steering Group on Agricultural Statistics will enlist expressions of interest from countries to participate in this first phase. The implementing partners will collaborate on the final selection. It is understood that the purpose of the pilot stage is to provide the necessary knowledge and experience to make the final determinations on requirements for technical assistance, training and research.

b. In-Depth Assessment

The second stage or in-depth assessment will be conducted under the framework of the National Strategy for the Development of Statistics (NSDS). The steps to integrate agriculture into the national statistical system must be complementary with other development efforts underway. While most countries will have an NSDS, not all have included agriculture or have a Sector

Strategic Plan for Agriculture and Rural Statistics (SSPARS). The development or updating of the Sector Strategic Plan, which is an outcome of the in-depth assessment, needs to provide the basis for the integration of agriculture into the national statistical system.

The baseline information from the first assessment will be used to prepare for the second stage or in-depth assessment in each country from which country proposals will be prepared defining the technical assistance and training needed to prepare or update the Sector Strategic Plan. Where a Sector Strategic Plan is already in place, the Country Proposal should be based on a first assessment of the technical assistance and training needed based on the choice of methodology and technology to be implemented.

The in-depth assessment will be conducted by the regional office with participation and input by other implementing partners. The in-depth assessment should involve stakeholders from all institutions that produce agricultural statistics plus those making use of the data. It should also include the institutions such as the ministry of finance that will have a key role in funding the sustainable statistical program. The in-depth review should include, but not be limited to the following assessment:

- The current governance structure—who does what—degree of coordination—resources available to each
- Legal and legislative framework for the production of agricultural statistics and institution(s) involved.
- Accounting of all official statistics for agriculture, fishery, forestry and rural issues—who provides them—degree of duplication—degree of comparability—frequency and timeliness (time from data collection to dissemination)—the availability to the public.
- Methodology used for each relevant data series. If produced by more than one organization, include description for each. This should include a description of the sample frame, sampling method, data collection, data analysis, and estimation methods.
- Description of the ARS if in place, methodology, data collected, frequency, and comparison with other data sources.
- Other Administrative data, content, sources, frequency, and availability
- Completeness of the NSDS or similar plan and the degree to which agriculture statistics are included.
- Number and technical skills of the professional staff (education and training in statistical methods)
- Number and technical skills of the field staff
- Availability of IT equipment (desk top computers, laptops, GPS, telephones, etc)
- Availability of software and access to the internet
- Budget from the government for statistical activities for each institution-
- Amount spent on statistical activities for each institution
- Actions taken to obtain input from stakeholders and data users of need for statistics

- Data users' assessments of the quality of agricultural statistics—examples would be the assessment provided by national accountants
- Use of statistics for policy purposes

c. The Sector Strategic Plan

The Sector Strategic Plan describes the process to determine the within country governance structure to oversee the integration of agriculture into the national statistical system, the country specific set of core data items, the statistical methodology to be used to integrate agriculture into the national statistical system, information technology and data management requirements, and needs assessment for technical assistance, training, and research. The final activity of the Sector Strategic Plan is to determine the budget allocation for the national statistical system based on who will be doing what and the funding required for technical assistance, training, and research for the implementation.

Determine national governance. Where the statistical system is decentralized, the first step in each country will be to form an interim coordinating working group that includes representatives from each institution to be affected by the implementation of the Global Strategy. Even countries with a central statistical system in place should bring in other agricultural sectors to provide input and recommendations about the minimum set of core data to provide. **Annex C** provides an overview of the governance structure established in the Philippines as a useful example. If necessary, the legal and legislative framework will need to be revised to support the governance structure supporting the integration of agriculture into the national statistical system.

Country specific set of core data items. The first step is to determine the country specific minimum set of core data items for agriculture and rural statistics with input from data users from both the public and private sectors covering data requirements for policy purposes, and for marketing and investment decisions. **Annex D** provides the global minimum set of core data. As stated above, not all items need to be in the national set which can also contain items not in the global core. The development of the minimum set of core needs to be followed by a preliminary determination of the methodology to be used and the data collection budget. Countries may prepare a Country Proposal for technical assistance, training, and research as this process develops.

The characteristics for each data item in the minimum set of core need to be defined as follows:

- Content—the items for which data need to be provided. While rice is a core data item, it is not produced in all countries. Pineapple production is not a global core data item; however, it is an important cash crop and will become core for many Asia- Pacific countries.
- Scope—level of detail such as planted and harvested areas, yield, and production—forecasts and estimates—livestock by specie—income by type of farm/household/gender,

market prices. Using Maize as an example, level of detail could be area planted, area harvested, yield, production. Further detail would be area and production by irrigated and non irrigated.

- Coverage—data represent the entire country or major producing areas or selected administrative areas. Coverage may differ for forecasts than for end-of-year estimates. Another dimension of coverage is whether the data are for commercial farms or also include production from household plots.
- Frequency—how often each data item will be provided—monthly—quarterly, semiannual—annual—biannual, etc. This is important or livestock with different lengths of production cycles—milk and eggs produced daily, vs different lengths of reproductive periods.
- When do data collections—important for crops that data be available for timely estimates of supply. The dilemma is when crops have different growing seasons, the optimum method calls for separate surveys, but survey costs require collecting data for as many crops as possible during each data collection.
- Analysis requirements—what items need to be measured to allow analysis—for example, crop yields by kind of input—affect on land use--connection of both to household/farm income
- Statistical unit of interest—farm—household—or land parcel. The typical reporting unit is the farm; however, it is important to connect many farm related items to the household characteristics and both to the land parcel because of the information needs about agriculture's effect on the environment.

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Once the country specific set of minimum core has been identified, the next step is to consider the alternative methods required to produce them. This will require a review of existing methods used in the country including its use of the ARS and build upon those.

Decisions about the choice of methods must be done in harmony with the national governance structure to be established and general agreement about which institution will be responsible for each element. For example, the national statistical office may be responsible for the master sample frame for agriculture and the census while the ministry of agriculture may use the frame for annual data collections.

Methodology. Technical assistance, training, and research components as described in following sections of the Regional Action Plan most likely will be needed to review the choices of sample frames that will lead to the implementation of a master frame followed by the sample and survey designs it will provide. Choices about data collection methods and the use of new technology need to be considered. The capabilities of each country at the starting point also need to be considered so that the implementation steps can be staged across time.

There is a large body of knowledge about statistical methodology that has been gained by international, regional, and national organizations that is available in various forms. These experiences plus research underway will provide countries choices to consider in their Sector Strategic Plan. Briefly, the preparation of the methodological aspects of the Sector Strategic Plan needs to consider the following components.

1. Master Sample Frame. The Global Strategy (pages 20-21 offers several alternatives for sample frames. As stated in the previous section, a sample frame becomes a master sample frame when it meets the needs of all participants in the national statistics system for agricultural data and statistics. A master frame can also be formed using multiple frames as described in FAO (1996)[14] and FAO (1998).[15]
2. Sample and Survey Designs. A principle of the Global Strategy is that many of the data elements need to be connected for analysis which points to the need for integration of surveys where feasible. A significant set of material is provided by Kish (1989). [16] FAO[17] (2010) provides concepts regarding the integration of surveys. Steiner (2005)[18] presented a recently developed design using the Multiple Probabilities Proportionate to Size method. It is likely that methodological research will be needed to properly advise countries on these methods for the Asia- Pacific. The World Bank website for the Living Standards Measurement Study—Integrated Surveys on Agriculture provides in-depth experience on questionnaire design and content for topics such as: basic crop production, storage and sales; land holdings; farming practices; input use; livestock inventories and production; and production, sales, and input expenditures for fisheries.[19]
3. Data Collection Methods. Again, there is a considerable amount of experience about data collection. Examples come from the International Conferences on Agricultural Statistics and International Statistical Institute meetings (see Keita and Carfagna (2009)[20]. The World Bank LSMS program has developed a Computer Assisted Personal Interviewing instrument[21] to improve the quality of data generated by providing a tool for validating data as they are being entered.

[14] FAO (1996). "Multiple Frame Agricultural Surveys—Volume 1; Current surveys based on area and list sampling methods

[15] FAO (1998), "Multiple Frame Agricultural Surveys—Volume 2: Agricultural survey programs based on area frame or dual frame sample designs.

[16] Kish (1989), "Sampling Methods for Agricultural Surveys" , FAO statistical Development Series, No 3, Rome: FAO

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4. Data validation and analysis methods. Technical assistance guidelines and training materials need to be developed to support the basic data validation to ensure quality data and analysis to explain what the results mean.
5. Data dissemination. Standard methods such as the FAO CountrySTAT should be reviewed and components adopted where appropriate.
6. Administrative data. As a country develops, governmental interventions for subsidies, food inspections, tariffs, and taxes can provide an important source of data that can be used to supplement survey and census results, especially for breakdowns of national data to more local levels.
7. Use of technology including remote sensing. The research agenda will provide guidelines for the integration of geographic information with statistics. Remote sensing is becoming more widely used and can provide early warning about declining crop conditions and more local details. This can also be a tool to develop a sample frame in the absence of census information.
8. Integrated data base. All data related to agriculture provided by different organizations in the national statistical system should be harmonized and be available for data analysis, updating the master sample frame, and to improve the official statistics.
9. Data analysis. The training and research agendas will support the need for analysis about current issues to accompany the dissemination of official statistics.

The research program described by in the Global Action Plan includes research topics specific to each of the above items.

Assessment of needs for technical assistance, training and research. The initial technical assistance support will be for the in-depth country assessment. This will determine the technical assistance, training, and research efforts needed for the development or updating of the Sector Strategic Plan and then the implementation of the RAP to improve agricultural statistics.

VII. Advocacy

Advocacy takes many forms. First, advocacy represents a communications strategy to convey the main messages to sources within the government system and to the private sector to garner support to improve agricultural statistics. Advocacy is also achieved by establishing trust with data providers, users, and facilitators. Producers must believe the pledge of confidentiality, and users must be assured that everyone has access to the same data and at the same time. Facilitators such as the press must trust they are receiving all of the facts.

The development of the Global Strategy was the result of an exhaustive effort to gain input from as many stakeholders as possible. The Global Strategy was the basis for a satellite meeting of the International Statistical Institute in Mozambique in August 2009. FAO included the Global

Strategy as a main item on the agenda of its Biannual Conference in November 2009. Ministers of agriculture of all member countries were briefed and had an opportunity for discussion. The Strategy was also discussed at sessions of the Regional Commissions on Agricultural Statistics attended by national directors of agricultural statistics. The implementation of the global strategy was the overall theme of the fifth International Conference on Agricultural Statistics held in Uganda in October 2010. The Global Action Plan was presented at the 37th Session of the FAO Conference, June 2011, and received strong support from FAO member countries and institutions.

An outcome of the meeting of G20 countries in June 2011 was the recommendation to "support the implementation of the Global Strategy and invite international organizations to create synergies between the Global Strategy and the Agricultural Marketing System".

In spite of these efforts, advocacy efforts need to be amplified to communicate the importance of the Global Strategy and the need to improve agricultural statistics. Intensive advocacy at the regional, national, and sub national levels has to be undertaken to ensure support to implement the Regional Action Plan and the sustainability of the statistics program over time.

Advocacy will come in different forms and tools, depending on the nature of desired change. Raising awareness would usually require effective briefing notes, press releases, etc.) Therefore, a comprehensive communications strategy that aims to raise awareness, strengthen coordination mechanisms, ensure that agricultural and rural statistics is integrated in the countries' official statistics and in general generate support for the Global Strategy and the RAP must be developed. The application of a good communications strategy is expected to enhance political support at both the regional and national levels that would eventually solidify the governments' commitment and the sustainability of this action plan.

The regional office, with the support of the implementing partners, will design and execute the communications strategy both at the regional and national levels. FAO-RAP's statistics unit works with line ministries (ministry of the agriculture, fisheries, forestry, livestock, etc) and NSOs, and has representation in most countries while ESCAP's collaboration with a country is either through its coordination body or the national statistics office. ADB on the other hand, has resident missions in most of its borrowing member countries which can deal with both the public and private sectors and which have actively supported statistical capacity building activities of the Development Indicators and Policy Research Division. At the regional level, advocacy can be done, e.g. through ESCAP-Committee on Statistics and SGAS, FAO RAP- APCAS, and other sub-regional statistics meetings.

However, the bulk of the work will be focused on individual countries because the commitment of the statistics producers, as well as the users, policymakers, statistics councils, upper echelon personalities in the budget and planning ministries, and even concerned committees in parliament or congress have to be solicited. Therefore, the close collaboration of the

implementing partners with the national partner agencies is needed to ensure that all major stakeholders are engaged.

Advocacy activities will be informed by the in-depth country assessments. The activities are likely to differ by country. For the advocacy to succeed, it needs to be driven by the country (with technical and training assistance). Someone within the country needs to champion the implementation of the global strategy; ideally this person or organization is at a level to provide leadership in the integration of agricultural statistics and formation of the national coordination mechanism. A country that has made steps toward integration could provide assistance through a "twinning" arrangement. **Annex C** which provides an example of how a governance structure was established is also an example of a successful advocacy effort.

The advocacy steps. Advocacy is something that has to be learned from experience and training much as learning about statistical methods takes place. Effective advocacy is based on the following:

1. Establish trust in the statistical system. Data providers must be ensured their data are confidential with no exceptions allowed. This message must be included in every data collection and communications with data providers. Data users must be assured everyone receives the results at the same time. This is crucial for market sensitive information. Press releases should announce the date and hour data are to be released with no exceptions made. The "Open Data" principle should be adopted to ensure everyone can access the information. Official statistics should be viewed as a public good and provided with no charge.
2. Develop a communication strategy within the government system. Advocacy to promote good statistics to other governmental entities should be based on understanding what data they need and how they are used. The internal institutions are not only data users, but they are also the ones determining the budget for statistics.
3. Develop a communication strategy with external stakeholders. This includes producer organizations, the press, international organizations, and donors. Seek continuous feedback about the content, frequency, and quality of the different statistics being provided. Seek their help in advocating for better statistics.
4. Be pro-active by providing insights into the meaning of the data. Never assume important data users understand the results or even know they are available.
5. Learn from other countries' experiences.

Finally, PARIS 21 provides a Country Level Tool kit[22] that provides a detailed review of the main steps of an advocacy strategy, how to prepare advocacy materials and tips on dealing with the media, preparing statistical websites, and newsletters.

[22] Paris 21 "Advocating for the National Strategy for the Development of Statistics—Country level toolkit"

A final point is that effective advocacy is not free. The costs of advocacy need to be part of the budget for the statistical system.

VIII. Technical Assistance, Training, and Research

This section provides a detailed review of the activities needed to support the statistical capacity building and efforts to implement the Global Strategy. The statistical capacity building will be anchored on a strong Technical Assistance program fully supported by training and research. Table 5 provides the linkage between the technical assistance, training, and research components.

These components should be built on the strengths of the vast array of methods and tools already available to meet many of the challenges facing agricultural statisticians. Methods for estimating crop area, yield and production were largely inspired by research conducted in India in the 1940's and 1950s. These methods are still being used even though the methods may not reflect modern realities. Another dilemma is that many of these methods have been adopted by developed countries, but are difficult to apply in developing countries without modification and adaption to national situations and realities. For that reason, the technical assistance, training, and research modules are not so much on developing and implementing new methodology, but more on finding what will work in a developing country and helping them implement the methods.

However, new technology and a new communications age are offering cost effective methods that can also be adapted to national needs. Technological advancements in the use of geospatial information and geo-referencing devices need to be considered to meet many of the emerging data requirements to monitor environmental and global warming issues.

Existing operational tools and data collection methods will be validated and updated. These activities will be carried out in parallel with work done at the global level and will result in methodological publications and statistical standards for statistical methods, dissemination, analysis that will serve as inputs for the technical assistance and training components.

Technical Assistance (detail plan in Annex E) begins at the global and regional level by collecting good practices, and developing and documenting statistical standards and technical guidelines for all aspects of the agricultural statistics system as described in table 2.1 of the Global Action Plan. The second component of technical assistance will be to assist with the in-depth country assessments followed by technical experts working directly with countries on determining the statistical methods to be used and to implement them. The statistical standards and guidelines ensure that the technical experts are applying the methods consistently across countries. The technical assistance will rely upon national ownership and commitment.

Technical assistance will be provided by a large number of institutions, many who have provided assistance in the past and some currently engaged. Organizations such as the World Bank and Paris 21 provide assistance through the Trust Fund for Statistical Capacity Building. Many countries with advanced statistical systems have also provided assistance in the past and will be encouraged to continue to do so.

Technical assistance will go beyond improving methodology by providing support for statistical advocacy to increase the awareness about the role of statistics and enhance demand for their use.

Training (detailed plan in Annex F) programs are not only directed to improving the capabilities of the technical staff for all aspects of the national system producing agricultural statistics, but also to managers directing the national efforts and also other stakeholders and data users. A long term goal of every national statistical system should be to have a training strategy to improve and then sustain the core competencies required to produce agricultural statistics. The Regional Action Plan provides the framework for a training program that builds off the technical assistance program.

The training program will be provided using e-learning tools, in-country workshops, and within region sessions at regional venues. The training will include improving the knowledge, skills, and abilities for the following areas:

- Understanding the basic elements of agriculture such as the production calendar for different crops and the life cycles of livestock, poultry, and fishery as they relate to the collection of data.
- Relating and connecting the economic, social, and environmental aspects of agriculture.
- Advocating for improved agricultural statistics
- Understanding basic statistical principles relating to sample frame, sample and survey design, data validation and estimation, and data analysis
- Presenting statistical results and explaining their meaning.

The training activities will be delivered in two phases. The first phase is to address short term needs for urgent/basic requirements training capabilities already available. The training program to follow will address the training gap identified in the training needs assessment.

Research (detailed plan in Annex G) programs will directly support the implementation at the national level. The research will be conducted in collaboration with the national statistical systems, research institutions and academe in adopting cost-effective and reliable methods. The research will be directed to improving basic methodology as well as the adoption of technology such as remote sensing, geo-positioning, the use of internet data collection, etc. The research effort will be coordinated with the technical assistance and training components.

The Global Action Plan provides a detailed list of research it will be supporting (Table 2.1 and Chapter 7 of the Global Action Plan). The regional research effort will complement and supplement that effort by:

- Directly adopting the results;
- Adapting the results to be consistent with regional needs; and
- Providing research in areas not included in the global effort. For example, the ARS, which is widely used in the region, will be evaluated and examined to determine its proper use in the improved statistical system.
- Providing research on issues specific to the region, strengthening countries in the region to conduct research on issues specific to them.

Table 5 provides a summary of the activities under technical assistance, training, and research components as they relate to each other and to the expected results of the implementation of the Regional Action Plan. The technical assistance, training, and research components mirror the structure in the Global Action Plan which describes the guidelines it will document, training materials it will provide, and research to be conducted. The regional implementation effort will require an assessment of the global actions to determine which outputs can be used directly and those to be adapted for use in the region; and will address gaps, if any, between global efforts and regional needs.

Table 5 Technical Assistance, Training and Research Components by Outputs of the Regional Action Plan

A. Regional governance structure in place		
Technical Assistance	**Training**	**Research**
The regional governance structure will include a Regional Steering Committee (RSC) and a Regional Office (RO). The RSC will be established by APCAS and ESCAP Committee on Statistics. RO will be staffed with financial support from the Global Trust Fund. The RO will be hosted by FAO RAP.		
B. Country-specific minimum set of agricultural and rural statistics indentified by each country using the minimum set of core data contained in the Global Strategy as the basis		
Technical Assistance	**Training**	**Research**
Assist countries with in-depth assessment to establish base line information on country needs for assistance in questionnaire design, data collection, etc.	Provide training on the CAQ to analysts conducting the in-depth country assessments	

	Training relevant to the identification of the country-specific minimum core set of statistics and implementation of training	
	Training on basics of agricultural and rural statistics: production and the economic, social, and environmental impacts	
C. Sector Strategic Plans for Agricultural and Rural Statistics (SSPARS) as a component of the National Strategies for the Development of Statistics (NSDS) provide the national framework for implementation		
Technical Assistance	**Training**	**Research**
Adapt global guidelines for integration of agriculture into national statistical system	Training relevant to the formulation of SSPARS; training on gap analysis of core requirements and qualifications of statistical staffs	
Prepare SSPARS as part of the NSDS process and country proposals based on assessment of needs		
D. Improved Political Support by decision-makers for agricultural and rural statistics in terms of provision of budget and resources		
Technical Assistance	**Training**	**Research**
Assist key stakeholders to develop business cases for increased political and resource support	Training on advocacy and communication strategies and development of business cases for increasing political and public support	
Organise technical meetings between decision makers and data providers to showcase the importance of agricultural and rural statistics	Workshops for increasing statistical literacy and enhancing appreciation of the importance of agricultural and rural statistics	
E. Strengthened legal and coordination mechanisms and frameworks for agricultural and rural statistics		
Technical Assistance	**Training**	**Research**
Support legal frameworks		.

for agricultural statistics by ensuring their alignment with other legal provisions		
Establish mechanisms for continuous dialogue with data producers and users	Workshops and seminars in support of advocacy for and integration into the statistics development strategies and plans	
Assistance on coordination of statistical activities related to environmental, social and gender issues		
F. Enhanced capacity of NSS to advocate for adequate resources for developing and compiling country-specific minimum set of agricultural and rural statistics		
Technical Assistance	**Training**	**Research**
Promote the use by NSS of best advocacy practices for the allocation of sufficient government and private resources to compile the minimum set of core data	Develop training on advocacy and communication strategies to increase resources support for statistics, and to improve communication skills with policy and decision makers, and private sector data users	
Prepare resource mobilization plan to put national statistical system on a sustainable basis		
G. Increased ability of NSS to access and use of ICT for production and dissemination of minimum set of agriculture and rural statistics		
Technical Assistance	**Training**	**Research**
Assistance to build and sustain statistical capacity for IT infrastructure, emerging technologies; assist with use of statistical software and use of CountrySTAT	Training on use of ICT for production, dissemination, documentation, preservation and archiving of country-specific minimum set of statistics, and provide e-learning tools on uses of software and communications technology	

H. Improved competencies of the NSS to produce and disseminate minimum set agriculture and rural statistics in accordance with international standards and good practices through training and technical assistance		
Technical Assistance	**Training**	**Research**
Assist countries to better plan and manage their agricultural censuses according to the latest guidelines by identifying possible linkages to other censuses. Assist countries to design integrated survey frameworks and integrated databases following the recommendations of the Global Strategy on the establishment of a Master Sampling Frame Assist countries to review and audit methodologies and instruments in use for registers of agricultural administrative data Assist countries to improve data consolidation and comparability among sources and over time	**(Multiple programmes)** Design, developing of materials and delivery of targeted training programmes on statistical processes that are responsive to NSS staff needs to produce the country-specific minimum core set and their uses and analyses; in response to training needs linked to research and technical assistance components including: *coordinating agricultural and population censuses; developing master sample frame; survey integration; sample design; estimation; analysis of data*	Collaborate with training component in developing training programs that will upgrade the skills of key staff of national statistical system in adopting available methods or developing new methods
I. Strengthened capacity of national and regional training institutions to develop and deliver relevant, efficient, and effective training in agricultural and rural statistics		
Technical Assistance	**Training**	**Research**
	Development and training on implementation of training needs assessment	
Promote the application of acquired technical knowledge and skills in	Develop and pilot standardized training and materials for in-country	Implement a mechanism for staff exchange/apprentice, programs between countries

countries	courses, training-of-trainers in basic and specialized areas identified in training needs assessment	
Support the emergence of regional centers of excellence in technical areas such as remote sensing, sampling, etc.	Develop and pilot a graduate degree program, develop and implement system for accrediting/certifying trainers, establish and maintain informal network of training and research institutions	Establish and support an informal network of research and training institutions in the region
J. Improved Capacity of countries to adopt cost effective and reliable methods for producing minimum set of agricultural and rural statistics		
Technical Assistance	**Training**	**Research**
Assist in implementation of sound statistical methods, how to reconcile data from different sources, and how to evaluate the accuracy and reliability of statistics provided.	Prepare handbooks, training materials	Disseminate research results, and work with selected national statistical system, research institutions and academe in adopting cost-effective and reliable methods
Adapt global guidelines to document and apply guidelines on advanced and cost effective statistical data collection, and analysis methods.		
K. Increased capacity of countries in the use of agricultural statistics to meet priority needs for policy making, operation of efficient markets and foster sound investment		
Technical Assistance	**Training**	**Research**
Disseminate guidelines on the application of data analysis for evidence-based decision making	Training on innovative presentation of statistics	Collaborate with the national statistical system and other relevant government agencies (data users) in analyzing available data from surveys and from administrative reporting systems to contribute to evidence-based policy making

Provide support for cross-cutting analysis from the economic, social and agri-environmental dimensions for policy purposes	Training on connecting the economic, social and environmental aspects of agriculture	
Adopt "open data"policy on data dissemination		

Note: Activities described in Table 5 are slightly adapted, for brevity, from those listed in the technical assistance, training, and research components as contained in **Annexes E**, **F**, and **G**. Activities listed in **Annex E**, **F**, and **G** represent the definitive version.

IX. Regional Centers of Excellence

The region has institutions such as the SIAP which provides a good example of a center that is providing training beyond that which can be provided by the national statistical systems. For that reason, the concept needs to expand into other technical areas.

While the use of satellite imagery and other emerging technologies is becoming very cost efficient, not every country will have the capacity to do the development and implementation required. The same applies to the development of sampling designs using up to date methods. The question is whether these are areas that could be made a part of a regional center of excellence that has the experience and knowledge to provide those services to groups of countries similar in economic and demographic structure of agriculture.

X. Workplan and Budget

The implementation of the Regional Action Plan began in 2012 under the guidance of the SGAS. The formal implementation will begin with the formation of the Regional Steering Committee and Regional office. The pilot countries for the in-depth country assessment need to be determined and the assessments begin as soon as possible so they can provide input for the technical assistance, training, and research components of the implementation strategy. A more detailed work plan is shown in **Annex** H. The indicative budget shown in **Annex** I will be subject for revision after initial activities, including the first country assessments, have been completed.

XI. Monitoring and Evaluation

The Global Office will regularly monitor and evaluate the utilization of resources allocated from the Global Trust Fund through field missions and review of progress reports, annual audits, and financial statements submitted by the region.

Follow-up activities will be organized at the regional level through supervision missions and assessment of the outputs of the action plan. The region will prepare a reporting system that will track the progress of the implementation to provide stakeholders regular status reports on progress and alert them of any changes to the original plan.

Annex

A. Governance arrangements at regional level

Terms of Reference of the Regional Steering Committee

The Regional Steering Committee is the ultimate decision-making body at regional level. The RSC will provide guidance and oversight, within the framework defined by the GSC and consistent with relevant funding agreements, for the implementation of the regional and country activities defined in the Regional Plan.

In addition, the RSC will seek to achieve coordination of activities and interventions that are not funded through the Trust Fund, but are of significant relevance for the implementation of the Global Strategy. Interventions of this nature include all relevant interventions that are funded through bilateral arrangements, self-funding modalities or any other activities outside the Trust Fund mechanism.

The RSC will meet at least once annually to monitor progress in the implementation of the Regional Plan and evaluate its impact. Additional meetings of the RSC may be held, as required.

Specifically, the RSC will:

a) Ensure coordination and integration of the implementation of the Global Strategy with other related statistical capacity development activities for synergy, complementarities and greater impact at the regional level;
b) Approve the Regional Action Plan (including budget and log-frame) prior to its submission to the Global Steering Committee – the Regional Action Plan will be submitted by the Regional Office (RO), through the Global Office;
c) Approve the annual work-plans (and any substantial modification) of the implementing partners prior to their submission to the Global Steering Committee for requesting disbursement of funds;
d) Decide on allocation of funds received between regional and country level activities as well as among the countries, on the basis of the approved work-plans;
e) Monitor progress in the implementation of the Regional Action Plan;
f) Review and approve the annual narrative and financial reports prepared by the implementing partners, prior their submission to the GSC, by the RO through the GEB, the GO and the Fund Administrator;
g) Approve the regional Monitoring & Evaluation plan and reports prior to their submission, by the RO, to the Global Office;
h) Support the mobilization of resources for the implementation of the Global Strategy, including financial resources, in-kind technical support, South-South Cooperation, etc;
i) Review its functions at any stage, as required.

Composition

The composition of the RSC will include 15 representatives from countries, resource partners, regional organizations, regional Participating Partners, FAO and selected experts. More specifically, the membership of the RSC will include:

- Two countries from each of four subregions [South and South-West Asia; South-East Asia; East & North-East Asia; Pacific]; maximum one representative per country, and ensuring a balanced representation of national statistical offices and ministries of agriculture;
- Implementing partners ADB, FAO RAP and ESCAP;
- Secretariat for the Pacific Community (SPC)
- One donor representative.
- One training and one research institution;

Term for country representatives will be 5 years with half of the membership to be rotated every 2.5 years. At the establishment, four country representatives will hence be members for a term of 2.5 years and four representatives for a full term of 5 years.

Rules of decision

Decisions of the RSC will be taken by consensus. If all efforts fail to reach consensus, decisions will be taken by a simple majority vote, provided that decisions of the RSC [that have a bearing on the Trust Fund] shall not be taken without the consent of donors of the Trust Fund.

Reporting

There will be a multi-reporting mechanism that will allow reports to be received and acted upon by different structures, including the following:

- Committee on Statistics of ESCAP, which will also report to the UN Statistical Commission as well as the ESCAP Commission;
- APCAS;
- Governing Board of ADB; and
- Global Steering Committee.

Annex

B. Terms of Reference for the Regional Office

The major role of the Regional Office is to coordinate the country assessments, training, research, and technical assistance to the integrated national statistical systems. The RO should also liaise with other international, regional, and sub-regional offices within their region to coordinate their support to countries, thereby avoiding duplication of efforts and ensuring that global standards are being followed. In particular, the activities of Regional Office will include:

a) Serve as the one-stop access point for countries and development partners for RAP implementation
b) Contribute to resource mobilization to support implementation of the Global Strategy;
c) Serve as the secretariat for the RSC servicing its meetings and providing recommendations on the allocation of funds and preparing the annual progress;
d) Prepare the consolidated narrative and financial progress report from the individual reports from each Participating Partner for submission to the GSC through the Fund Administrator and the Global Office and make recommendations to the RSC;
e) Prepare the regional Monitoring & Evaluation report for submission to the RSC and the GSC, through the Global Office;
f) Coordinate with the implementing partners and the Global Office to ensure the implementation of the Global Strategy at regional level;
g) Collaborate with the Global Office to ensure that the specific research needs of the regions are taken into account;
h) Coordinate with regional partner and Global Office in conducting research at the regional level
i) Adapt the methodologies developed by the Global Office to meet the requirements of the countries in the region;
j) Provide overall coordination support for countries in regions that do not have a functioning regional coordinating body;
k) Coordinate with the implementing partners for training component and technical assistance component to ensure that training activities and technical support address country needs;
l) Provide assistance to countries in preparing the country proposals and Sector Strategic plans;
m) Undertake any other tasks as may be required to achieve the objectives of the Global Strategy, as appropriate.

The Regional Coordinator (RC) will be responsible for overall running of the Secretariat on behalf of the Steering Committee. He/she will be responsible for administrative, financial, and technical work as well as the M&E system of the Action Plan.

Annex

C. Generating Support and Planning for the Census of Agriculture and Fisheries: The Philippine Case

At the completion of all Census of Agriculture and Fisheries (CAF 2002) activities, the National Statistical Office (NSO) had the forethought to use the savings to prepare for a better CAF 2012. A project specifically for this purpose was developed at the Statistical Research and Training Institute (SRTC), one of the five major statistical agencies in the Philippine Statistical System. A Steering Committee with NSO and Bureau of Agriculture Statistics (BAS) heads as co-chairs was formed to provide overall oversight of the project. A Core Working Group composed of 10 technical and managerial NSO and BAS staff was formed, whose work was guided by a consultant. The project started in 2007. One major recommendation adopted by the Philippine Statistical Development Plan 2011-2017 was to split the CAF into Core Census and Community Census in 2012 (Core Census), followed by a series of large-sample supplementary census modules (Supplementary Modules) e.g. on irrigation and cropping systems, livestock and poultry, aquaculture and fisheries, capital formation in agriculture, etc. Whereas before the NSO was in charge of the entire census, this time it will take major responsibility for the Core Census and BAS will be the lead agency for the Supplementary Modules. The Core Census materials and field procedures have been piloted in four towns; actual census data collection will be in February 2013 with calendar year 2012 as reference period. (Note: Core Census will serve as frame for the Supplementary Modules and the latter have potential to serve as sub-sector master samples in what might emerge as a multiphase agricultural survey sampling system.)
In 2007 the Government created a high level Special Committee to Review the Philippine Statistical System (PSS), which submitted its report and recommendations in 2008. These include consolidating the data collection, coordination, classification and standards and national accounts compilation currently spread in NSO, BAS and NSCB into one agency, expanding SRTC into a Philippine Statistical Research and Training Institute (PSRTI), and adopting the province and key cities as major domains for PSS outputs. These recommendations are embodied in a draft bill currently in Congress.

NSO conducted a special population census in 2007 and the law-mandated Census of Population and Housing in 2010. The files from these censuses are currently being used to pilot in two provinces a redesign of NSO's current master sample (for non-agricultural household surveys); this is a major redesign work because the major domain is being changed from 17 regions to 100 provinces and key cities – within roughly the same budget. (Note: These activities were all internally instigated and funded by the Philippine Government. With the possible exception of BAS, the four other major statistical agencies showed no indication of awareness of the work on the Global Strategy. On hindsight, the Special Committee mentioned above in particular, could have used the Global Strategy to shore up its recommendation to consolidate the basic data collection, handling and processing into one agency.)

Annex

D. Global Minimum set of Core Data Items

Group of variables	Key variables	Core data items	Frequency
Economic			
- Output	Production	Core crops (e.g wheat, rice, etc.) Core livestock (e.g. cattle, sheep, pigs, etc.) Core forestry products Core fishery and aquaculture products	Annual
	Area harvested and planted	Core crops (e.g. wheat, rice, etc.)	Annual
	Yield / Productivity	Core crops, core livestock, core forestry, core fishery	Annual
- Trade	Exports in quantity and value	Core crops, core livestock, core forestry, core fishery	Annual
	imports in quantity and value	Core crops, core livestock, core forestry, core fishery	Annual
- Stock of Resources	Land cover and use	Land area	....[23]
	Economically active population	Number of people in working age by sex	
	Livestock	Number of live animals	
	Machinery	e.g. Number of Tractors, harvesters, seeders etc.	
- Inputs	Water	Quantity of water withdrawn for agricultural irrigation	
	Fertilizers in quantity and value	Core Fertilizers by core crops	
	Pesticides in quantity and value	Core Pesticides (e.g. fungicides herbicides, insecticides, disinfectants) by core crops	
	Seeds in quantity and value	by core crops	
	Feed in quantity and value	by core crops	
Agro processing	Volume of core crops/livestock/fishery used in processing food	By industry	
	Value of output of processed food	By industry	
	Other uses (e.g. biofuels)		
Prices	Producer prices	Core crops, core livestock, core forestry, core fishery	
	Consumer prices	Core crops, core livestock, core forestry, core fishery	
Final expenditure	Government expenditure on agriculture and rural development	Public investments, Subsidies, etc.	

[23] The frequency for the following items will be established by the framework provided in the Global Strategy to determine the national priorities for content, scope, and frequency. The frequency requirement will also be considered in the establishment of the integrated survey framework where the data sources will be defined.

Group of variables	Key variables	Core data items	Frequency
	Private Investments	Investment in machinery, in research and development, in infrastructure	
	Household consumption	Consumption of core crops/livestock/etc. in quantity and value	
Rural Infrastructure (Capital stock)	Irrigation/roads/railways/ communications	Area equipped for Irrigation / Roads in Km / Railways in Km / communications	
International transfer	ODA[24] for agriculture and rural development		
Social			
Demographics of urban and rural population	Sex		
	Age in completed years	By sex	
	Country of birth	By sex	
	Highest level of education completed	1 digit ISCED by sex	
	Labor status	Employed, unemployed, inactive by sex	
	Status in employment	Self Employment and employee by sex	
	Economic sector in employment	International Standard Industrial Classification by sex	
	Occupation in employment	International Standard Classification of Occupations by sex	
	Total income of the household		
	Household composition	By sex	
	Number of family/hired workers on the holding	By sex	
	Housing conditions	Type of building, building character, main material, etc.	
Environmental			
Land	Soil degradation	Variables will be based on above core items on land cover and use, water use, and other inputs to production.	
Water	Pollution due to agriculture		
Air	Emissions due to agriculture		
Geographic location			
GIS coordinates	location of the statistical unit	Parcel, Province, Region, Country	
Degree of urbanization	Urban/Rural area		

[24] Official Development Assistance

Annex

E. Technical Assistance Component of RAP

1. Introduction

Developing countries in Asia-Pacific (AP) have received support for statistics in the form of funds and technical assistance (TA) from regional organizations, bilateral and multilateral donors and international organizations.

TA for agricultural statistics has been provided by organizations and countries including FAO, ADB, UN-ESCAP, World Bank, Partnership in Statistics for Development in the 21st Century (Paris21), Secretariat of the Pacific Community (SPC), International Labour Organization (ILO), US Department of Agriculture (USDA), Swedish International Development Cooperation Agency (SIDA), Norway Statistics, EU and UK Department for International Development (DFID). Bilateral assistance (including south-south) has been provided by AP countries such as Japan, Australia, China, India, Korea, New Zealand, Thailand, the Philippines, Malaysia and Indonesia

Initially and for a long period of time, technical assistance was delivered through long-term advisers employed in technical cooperation projects funded by the development partners. Census and survey experts were recruited and sent to recipient countries to work on a census or survey or another statistics capacity building project. For example, many Pacific Island countries typically received assistance for conducting an agricultural census from FAO every ten years with limited expectation of creating a supporting system of annual surveys. These projects were directed at building national capacity for the specific census/survey over several years. With the increasing availability of national expertise and reduced resources for technical assistance, the pattern changed to short-term assistance using external consultants.

The state of statistics in the Asia and Pacific Region has improved; statistical production has increased, statistical offices now have substantial skills in survey management, and survey information is starting to be more systematically archived and available to users. However, recent studies show that this improvement has been uneven and, in some cases, has not been commensurate with the assistance the countries have received over the years. A number of factors explain why this has been the case; for example, directing technical assistance at meeting urgent short-term data needs of the donor-supported projects and programmes rather than to meet national needs and longer-term development of sustainable capacity for statistics. In some other cases, lack of coordination and prioritization and high staff turnover resulted in technical assistance not meeting one of its important objectives of transferring know-how and technical expertise to counterparts in all countries. For better results, areas of assistance should be

identified by countries and conducted with maximum involvement of national counterparts in support of ownership and sustainability of efforts.

For a lasting impact in the Asi- Pacific Region, the TA proposed in this Regional Action Plan will be based on the UN Guiding Principles for Technical Cooperation for Statistics[1] (1997) and the Paris Declaration on Aid Effectiveness[2] (2005). According to these international guidelines, TA should be, *inter alia*, demand-led, strategic, country owned, aligned, harmonized, managed and mutually accountable.

2. Technical Assistance – First Steps

The main lines of action covered by the Global Strategy [4] have been designed to

- identify a minimum set of indicators that reflect current core agricultural statistical needs and emerging requirements, including those from neighboring domains;
- provide a blueprint for a better integration of agricultural statistics in the national statistical system;
- advocate for national statistical organizations and ministries of agriculture to obtain funding to meet the agreed international requirements;
- establish a basis for statistical capacity building by identifying a set of methodological tools;
- establish coordination of donors' efforts to improve agricultural and rural statistics.

At **regional level,** one of the first steps of the TA is to collect good practices and adapt the guidelines and documentation provided by the Global Office to meet regional specificities and best practices. The above documentation relates to general guidelines to conduct country missions, development of Sector Strategic Plans for Agricultural and Rural Statistics (SSPARS) and formulation of country proposals and action plans; it also relates to technical guidelines and standards for data collection, analysis and dissemination.

Since TA will be provided in key areas depending on each country's capabilities, preliminary country assessments has allowed countries to be classified according to their level of statistical capacity and grouped accordingly. TA programs will be developed for each group of countries to move them forward in a stepwise progression. Although country responses to the Country Assessment Questionnaire (CAQ) requesting information were not complete nor consistent, an initial set of groupings has been done and target countries can be selected.

The next step will be in-depth assessments of the statistical needs and capabilities of the target countries, the state of the data they currently produce and disseminate and the methodology they use (with particular reference to the pillars of the Global Strategy). The information gathered during these in-depth country assessments will also form the basis for the development of SSPARS within the framework of the NSDS to sustainably produce the country-specific minimum set of core data.

Specific TA activities at **country level** are dependent on country work-plans and SSPARS that will be developed for both country implementation and for preparation of project proposals to submit to donors. The implementation of the TA will be undertaken through a combination of knowledge transfer and direct country assistance. Sustainability of structures and capacities will be of paramount consideration, as will national ownership of and commitment to the program. The TA will support the establishment of the governance structure to integrate agriculture into the national statistical system, will provide advocacy promoting an integrated national statistical system, will determine the methodologies to be used, and will provide guidance for the overall implementation.

All above actions can be restated into the following aspects/outputs of technical assistance:

- Technical assistance component appropriately managed (at regional level)
- National capacity development programs established
- SSPARS designed
- Institutional and organizational capacities developed
- Agricultural sector data sources developed and harmonized
- Required agricultural data harmonized, managed, produced, analyzed and disseminated

The **regional and country** TA should be coordinated at the regional and global levels to ensure that consistent methods and standards are used (resulting in internationally comparable statistics) and should consider other development activities that may already be underway. Regional advocacy materials should be prepared and agreement on regional and sub-regional minimum sets of core data should be defined before in-depth country assessments can proceed and country-specific sets of minimum core data can be identified.

A more detailed Action Plan for TA is developed in Section 8, below.

3. Country-Level Technical Assistance

Based on the responses to Country Assessment Questionnaires (CAQs) collected in the Asia and Pacific Region, the constraints listed by each country identified a general area of concern. Cambodia has indicated significant constraints in staffing and technical skills as well as IT infrastructure. The Cook Islands listed political support for statistics and appreciation of the value of statistics in decision-making as dominant constraints. The Maldives appears to be seriously in need of everything except building space. Nepal reports difficulties in support for statistics in decision-making and in IT infrastructure. Samoa indicated that it has high turnover of professional staff. Other countries have also indicated the need for well-trained professional staff, although there is some concern that the results may be biased toward the institution that filled out the CAQ since these responses from MOA and NSO were often duplicated.

The list is incomplete but in-depth in-country assessments will enable a better indication of weaknesses in agricultural statistics and the difficulties that may arise in its integration into the national statistics system. Cooperation and coordination in the national statistical systems is key to improving the completeness of agricultural sector data and to enable cross-cutting analysis.

Limited staff numbers and capabilities in the NSOs generally mean that fewer surveys are carried out and that the MOA must collect any information it needs, either with NSO authorization or without. It is also typical for the NSO staff to have better survey and sampling experience, the lack of which results in possible biases or inaccuracies in MOA surveys. In the development of the country action plan, the objective of sustainability should be an overriding factor in measuring the possibility of success.

The basic input for development of the country technical assistance programme is identifying key stakeholders for agricultural and rural statistics and mainstreaming them into the statistical system. The chances for sustainability are increased substantially if the country takes ownership of the system. The use of existing structures, current project activities in the national statistical system, and continued donor support for establishing the system are vital to its success. Long term sustainability must be the responsibility of the country.

The implementation of the TA component must be conducted using four premises:

(i) level of agricultural statistical development differs among countries in the region – the preliminary assessment undertaken, led to grouping countries into five categories – least developed agricultural statistic systems, developing agricultural statistics systems with constraints, developing agricultural statistics systems, progressive agriculture statistical systems and statistical systems with a high level of statistical development;
(ii) existing structures at regional, sub-regional and national level should be leveraged, and strengthened where they are weak;
(iii) collective regional capacities should be harnessed using peer support mechanisms and also South- South cooperation; and
(iv) international experts with knowledge and working experience in statistical development work in Asia and the Pacific Region should be involved.

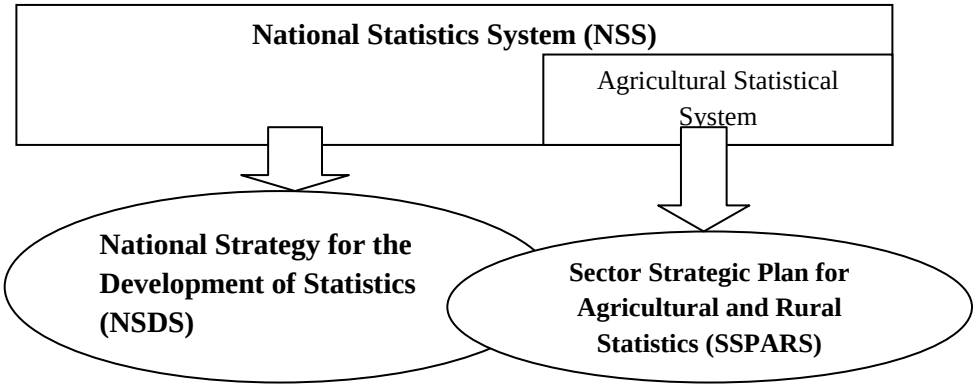
3.1 Development of SSPARS

There is international consensus that the design and implementation of the NSDS is the best way to build national capacity and strengthen statistics in support of national and international development. The NSDS is the leading action point out of 6 action points of the Marrakesh Action Plan for Statistics (MAPS)[25]. A National Statistics System (NSS) is designed on a sectoral basis, it means that the National Statistical Office (NSO) coordinates and norms the actions of "Sectoral Statistical Offices" (SSO) (including the Agricultural Sector). The NSDS is the strategic development plan for the NSS. At sectoral level, both a Sectoral Statistical System

[25] The other action points of the MAPS are:
- full participation in the 2010 round of population censuses;
- countries and partners to increase financing for statistics and statistical capacity building.
- set up an international household survey network to improve the effectiveness of international household survey programs;
- make improvements in key data sets related to MDG monitoring;
- increased the accountability for international statistics

and a Sectoral Strategy of Statistical Development are advocated. The following scheme depicts the ideal situation for including agriculture in the NSDS:

Figure 1. Relationship between SSPARS and integrated NSS



4. Impact, outcome and outputs

4.1. Impact

The overall impact of TA is the development of evidence-based policies for poverty reduction, increased food security and sustainable natural resources management.

4.2.Outcome

The outcome of the implementation of the TA component is a significant increase in the availability and quality of agricultural and rural statistics.

4.3. Outputs

The TA component of the RAP is a plan to improve and strengthen institutional, organizational, and technical capacities of AP countries for the development of their Agricultural Statistical Systems.

In line with the Global Strategy, the TA component has been designed to increase effectiveness of agricultural statistics systems in Asia and the Pacific. In particular, it is geared to achieve: (i) improvements in the coverage and quality of the minimum core data set established in the Global Strategy, focusing on both national and regional priority data needs; (ii) greater integration of agricultural statistics with national statistical systems; and (iii) increased and sustained capacity of the systems to meet the needs of users in the future improving governance of agricultural statistics systems and capacity building.

The TA component for Asia and the Pacific will be implemented through activities related to Outputs **B, C, D, E, F, G, H, I, J** and **K** of the regional action plan. More specifically:

Output B. **Country specific minimum set of agricultural and rural statistics identified by each country using the minimum set of core data contained in the Global Strategy as the basis**

Sub-output B1. Country-specific minimum set of agricultural and rural statistics subscribed to by countries that also covers new and cross-cutting areas.

Activity B1. Organize in-depth country assessments with participation of users and producers using adapted country assessment guidelines. *Activity B2.* Establishment of baseline information through a detailed assessment of specific country needs: questionnaire design, data collection, data processing, data analysis and reporting. *Activity B3.* Development and establishment of technical assistance programmes.

Institutional and organizational weaknesses that inhibit effective development of National Agricultural Statistical Systems, in particular, and National Statistical Systems, in general, will be identified; technical assistance that would be required to address these weaknesses and should be sought by countries will be based on specific needs.

Output C. **Sector Strategic Plans for Agricultural and Rural Statistics (SSPARS) as a component of the National Strategies for the Development of Statistics (NSDS) provide the stages for the implementation.**

Activity C1. Adapting the global guidelines to mainstream agriculture into the NSS. *Activity C2.* Preparation of detailed SSPARS as part of the NSDS process (undertaking needs assessment, visioning, strategizing, action planning, M&E, etc.). *Activity C3.* Preparation of country proposals based on assessments of needs to support SSPARS

The design and implementation of a NSDS – covering all sectors, data producers, and data users – is the best way to build capacity and strengthen statistics in support of national and international development. Best practice requires that the NSDS adopt a bottom-up or sectoral approach. Sector Strategic Plans for Statistics (SSPSs) are designed first, to serve as building-blocks for the NSDS. Technical assistance will be required by countries to bring objectivity, international best practices, and experiences from other countries/regions to bear in the design of the SSPARS.

Output D. **Improved political support by decision makers for agricultural and rural statistics in terms of provision of budget and resources**

Activity D1. Assist key stakeholders to develop business cases for increased political and resource support.

Activity D2. Organise technical meetings between decision makers and data providers to showcase the importance of agricultural and rural statistics

***Output E*. Strengthened legal and coordination mechanisms and frameworks for agricultural and rural statistics.**

Activity E1. Support legal frameworks for agricultural statistics by ensuring their alignment with other legal provisions.
Activity E2. Promote and enhance coordination for agricultural data production and use by:
- Establishing mechanisms for continuous dialogue between agricultural data producers and users through establishment of Agricultural Statistics Coordination Committees or Agricultural Data User-Producer Committees (where they do not exist) and/or strengthening them (where they exist);
- Assist in the development of coordination procedures among data producers through establishment of Agricultural Data Producer-Producer Committees and national agricultural statistics work programmes.
Activity E3. Assist countries in the coordination of statistical activities in the NSS system to adequately integrate agri-environmental and social issues, including gender, in agricultural statistics.

***Output F*. Enhanced capacity of NSS to advocate for adequate resources for developing and compiling country-specific minimum set of agricultural and rural statistics**

Activity F1. Promote the use by NSS of best advocacy practices for the allocation of sufficient government and private resources to compile the minimum set of core data.
Activity F2. Prepare resource mobilization plan to put the NSS on a sustainable basis

***Output G*. Increased ability of NSS to access and use ICT for production and dissemination of minimum set of agricultural and rural statistics.**

Activity G1. Assist countries to build and sustain statistical capacity, including survey infrastructure, IT infrastructure, and application of emerging technologies and tools such as remote sensing, Geographical Information System (GIS) and Global Positioning System (GPS).
Activity G2. Assist countries with use of statistical software and IT solutions for compilation, reporting/dissemination of the minimum core data set.
Activity G3. Assist countries to establish and/or strengthen CountrySTAT, e.g., for data management and harmonization and a portal for national agricultural data dissemination.

The use of satellite imagery and other emerging technologies is becoming very cost efficient as well as the use of electronic data collection systems. The use of remote sensing and area frames are critical for the construction of master sample frames.

***Output H*. Improved competencies of NSS to produce and disseminate minimum set of agricultural and rural statistics in accordance with international standards and good practices through training and technical assistance.**

Activity H1. Assist countries to better plan and manage their agricultural censuses (as sources of benchmark agricultural data and indicators) according to the latest guidelines.
Activity H2. Assist countries to design integrated survey frameworks and integrated databases following the recommendations of the Global Strategy about the establishment of a Master Sampling Frame.
Activity H3. Assist countries to review and audit methodologies and instruments in use for registers of agricultural administrative data.
Activity H4. Assist countries to improve data consolidation and comparability among sources and over time. Technical assistance may be required to help countries: (i) assemble, review, analyze, and document existing agricultural datasets; (ii) verify the accuracy and reliability of the agricultural production data series, using information from other sources; and (iii) establish and maintain a web-based information technology system for food and agricultural statistics at the national and sub-national levels

Data sources may be poorly developed and poorly harmonized resulting in data that are not well integrated. Countries may need technical assistance to: (i) plan and manage their agricultural census as a source of benchmark agricultural data and indicators; (ii) implement a program of agricultural surveys to maintain timely performance indicators for the agriculture sector; (iii) improve administrative data sources; and (iv) audit data systems and data from censuses, surveys, and administrative sources.

If agriculture is to be fully integrated into the national statistical system, it will be essential that statistical standards and guidelines are applied to all sectors and that sector definitions and geographical areas of interest permit cross-sector analysis. A master sampling frame for agricultural statistics that preserves confidentiality will be a key ingredient in an efficient statistical system as well as other sources of information (e.g., administrative records, geo-referenced data and market information).

***Output I.* Strengthened capacity of national and regional training institutions to develop and deliver relevant, efficient, and effective training in agricultural and rural statistics**

Activity I1. Promote the application in-country of acquired technical knowledge and skills.
Activity I2. Support the emergence of regional centers of excellence in technical areas such as satellite imagery and other emerging technologies, sampling designs and other innovative methods.

***Output J.* Improved capacity of countries to adopt cost effective and reliable methods for producing minimum set of agricultural and rural statistics**

Sub-output J1. Improved ability of countries to adopt methodological research results, guidelines and frameworks for agricultural and rural statistics.

Activity J1. Assist countries in the implementation of relevant and sound statistical methodology.
Activity J2. Assist countries to assemble, review, analyze and document good practices as well as existing agricultural datasets including causes of inconsistencies and discrepancies in agricultural data from different sources and ways to reconcile them.
Activity J3. Assist countries to verify the accuracy and reliability of the agricultural production data series.

The extensive research effort by the Global Office will provide many opportunities for countries to adapt improved and cost effective methods. Technical assistance will be provided to determine the methodology best suited to the country situation.

***Output K*. Increased capacity of countries in the use of agricultural and rural statistics to meet priority needs for policy making, operation of efficient markets and foster sound investment**

Activity K1. Disseminate guidelines on the application of data analysis for evidence-based decision making.
Activity K2. Provide support for cross-cutting analysis from the economic, social and agri-environmental dimensions for policy purposes.

Provision of data analysis and market intelligence that can effectively guide policy, document progress, identify vulnerabilities, spread innovation and provide evidence on food and agriculture in the region is crucial for guiding policy on sustainable agricultural development and setting priorities for food security interventions.

5. Possible areas for a TA program

Technical assistance will be required from implementing partners to develop specific tools and guidance to help with the implementation process. A proposal of the tools and guidance required for providing TA is presented in Sections 6, 7 and 8 below. In this connection, eleven areas of a technical assistance programme for Asia-Pacific can be identified. These areas touch on other components of the program – training and research and development-- but the delivery of training and the development of training materials are covered by the Training Component and research activities by the Research Component. A review of the major areas to be addressed through technical assistance follows.

Area 1: Assessment of the country situation with respect to agricultural statistics.

The starting point of the Action Plan is the in-depth assessment of the statistical system producing agriculture statistics to satisfy data users' needs. This assessment points to a diagnosis of the statistical needs and capabilities of each country, the state of the data they currently produce and disseminate, the methodology used and their readiness to begin implementing planned activities. This in-depth assessment will be conducted using the Framework for Assessing the Quality of Agriculture and Rural Development Statistics, under preparation by FAO. The result of these assessments will also decide the country level activities during the course of implementation of the Strategy.

The outputs of the assessment will be:

a) The establishment of baseline information on the national capability to produce the core set of data advocated in the Global Strategy on a sustainable basis;
b) Determination of quantity and quality of current data produced;
c) Evaluation of different sources of information and their reliability/accuracy;
d) Evaluation of weaknesses and strengths of the agricultural statistical system and ways to overcome weaknesses and leverage strengths;
e) Determination of current and future needs of capacity building such as training, technical assistance, research and methodologies;
f) Evaluation of the extent to which integration of agriculture into the National Statistical System takes place as well as the country's ability to develop the agriculture master sample frame, integrated survey framework, and data management system.

TA is needed to conduct the assessment, mainly the in-depth country assessment mentioned above as an important ingredient to achieve Output A above.

Area 2: Design and implementation of SSPARS in the framework of the NSDS.

The "Second Pillar" of the Global Strategy is the integration of agriculture in the National Statistical Systems as a key issue in the process for improving agriculture statistics: This integration could be accomplished by the formulation of a SSPARS which will include the "development of a master sample frame for agriculture to ensure relevance and completeness; its use in implementing a coordinated data collection program to produce timely and accurate data that are coherent and comparable; and a strategy for data dissemination to ensure accessibility"[26].

The Global Strategy advocates for an integrated system. TA is needed to assist countries in elaborating their strategic plans along the lines described in Section 3.1 above. PARIS21 provides a panorama of the situation for IDA and Lower Middle-Income Countries of the AP with respect to their situation about existence/application of a NSDS27. FAO and Paris21 are

[26] Global Strategy, Chapter 4, page 19.
[27] National Strategies for the Development of Statistics. Progress Report. NSDS Summary Table for IDA and Lower Middle Income Countries, March 2012, at: www.paris21.org/NSDS-status.

currently developing a Guide to Integrating Agriculture Statistics into National Strategies for the Development of Statistics (NSDS). This guide will be used in the formulation of SSPARS.

Area 3: Development and strengthening of institutional and organizational capacities.

Despite efforts for better coordination and institutional strengthening of statistical systems in the region, several weaknesses are still present. They refer both to institutional and organizational capacities. TA will be required to address these weaknesses. In particular, TA will be addressed to:

(a) Advocacy for statistics and statistical development in sectors

Statistical advocacy aims to create greater awareness especially among policy and decision-makers about the role of statistics, enhance demand for and use of statistics especially for results agenda in the sector. The advocacy message in sectors should emphasize the value of statistics to support development agenda.

Statistical advocacy should contribute not only to increase the levels of appreciation of the value and importance of statistics across society (statistical culture) but also to increase capacity of analysis and interpretation of statistical information across data-users. TA will come in handy to build skills, develop advocacy tools, materials and messages, and to create opportunities for advocating for statistics.

(b) Statistical legislation

It is generally agreed internationally that a strong statistical legislation (Statistics Act, decree or proclamation as it is known in some countries) is a fundamental prerequisite for an effective statistical system[28]. As pointed in the Global Action Plan, the integration of agriculture into the national statistical system must be reflected in the statistics laws of the country.

The present situation in Asia-Pacific countries is that except for the Pacific, most countries have some type of national statistical legislation. However the instruments used are of different legal rank (laws, decrees, decree-laws, resolutions) with different scopes (some only organize the NSO whilst others have a wider scope covering the whole NSS. Some crucial aspects of statistical legislation like confidentiality of data or establishment of rights and obligations are not always included.

As far as legal frameworks for agricultural statistics activities are concerned, the normal situation is that ad-hoc rules (decrees or resolutions) are established in each particular situation (undertaking of Agricultural Censuses or National Agricultural Surveys). TA should be addressed to provide skills and juridical inputs for enhancing and coordinating National and Sectoral Statistics Systems. Training in good practices taken from actual legislations should be an essential part of TA in this area.

[28] Consultative Seminar on Governance of National Statistical Systems, Singapore, May 28-30, 2003

(c) Mainstreaming agricultural statistics in sector development policies, programs and budgets.

One of the factors inhibiting statistical development in sectors is that statistics is not mainstreamed in sector development policies, programs and budgets. In many countries, statistical activities are undertaken on ad-hoc basis as and when resources are available or when specific data are required. Indeed in many cases, there is no dedicated budget for statistics in Ministry budgets. In these cases, a lot of statistical activities are funded by development partners and they have ceased when financial assistance has ended. All this has made building and sustaining statistical capacity in sectors a tall order.

It is crucial that countries are assisted through advocacy and policy dialogue between government and development partners to mainstream agricultural statistics in sector development programs funded by governments as well as development partners.

(d) Enhancing coordination

Coordination between data users and producers is essential for advancing "*common understanding of policy issues and related data requirements, setting data priorities, clarifying the objectives for data collection, and agreeing on the best methods for collecting data*" (UNSD, 1991). In order to ensure that data users are clearly identified and that their needs are continuously assessed and synthesized, it is important to establish mechanisms for continuous dialogue between them and data producers. One such mechanism is the establishment of a Coordination Committee. In many countries there exists a Coordination Committee of the NSS but not for Agricultural Statistics. The common practice is to establish ad-hoc committees for the National Census of Agriculture as well User-Producer workshops. Establishment of permanent Agricultural Statistics Coordination Committees or Agricultural Data User-Producer Committee is very important to provide direction and guidance in the development of agricultural statistics in the country. TA may be required to establish such Committees in Asian-Pacific countries.

It is also important to ensure coordination among data producers themselves. This will facilitate:

- prevention of duplication of efforts*;*
- avoid production of conflicting data**;**
- synergy;
- avoid working at cross-purpose;
- production of higher quality data across the system.

This coordination requires that sectors and other data producers not only coordinate with the NSO but also with each other. This is particularly crucial in the agricultural sector where data are produced by different agencies. TA will be required to assist countries come up with coordinating arrangements among data producers and, in particular, to establish a Data Producer-Producer Committee and national agricultural statistics work programs.

Area 4: Development and harmonization of data sources.

As detailed in the Global Strategy, the survey framework also takes into account the additional data sources that need to be included in the integrated statistical system, including administrative data, agribusiness and market information systems, community surveys, remote sensing, and

consistent input from expert data collections[29]. Data coming from different sources must be taken in a coordinated way in order to harmonize them for a proper statistical use. In particular, common definitions and concepts should be used, confidentiality must be preserved and comparable cartography and similar coding for geo-reference used.

While administrative data is easy and relatively cheap to compile vis-à-vis surveys, the quality of some of the data collected from this source has room for improvement. Also there are a number of data gaps which have had to be filled by annual agricultural surveys and decennial censuses. Technical assistance will be required to review methodologies and instruments in use and to periodically audit existing data from different systems. The audit should lead to a policy on data quality. The policy should, *inter alia*, spell out conditions under which data will be published. For instance, the policy may prescribe publishing data from a survey which registers less than 45% response rate or whose data are subject to unacceptably high sampling errors, etc.

It is important to mention that data consistency will also be achieved by deepening and broadening inter-institutional coordination and linkages; system-wide adoption and application of standardized concepts, definitions and classifications; and collecting data during the same period of the year.

Technical assistance will be required to help countries to:

- assemble, review, analyze and document good practices as well as existing agricultural datasets, including causes of inconsistencies and discrepancies in agricultural data from different sources and propose how these may be reconciled. This can be done along the lines of the Accelerated Data Program (ADP), a PARIS21 satellite program that aims to assist countries to identify weaknesses and making short-term improvements to relevant statistical processes such as household surveys, in order to quickly obtain or improve estimates of key indicators, including those for the MDGs[30];
- verify the accuracy and reliability of the agricultural production data series using information on agricultural prices, export volume and values, level and distribution of rainfall, household consumption survey data, etc. that could directly or indirectly explain the production levels/trends;
- Statistical support to data analysis, research and development.

Area 5: Incorporation of other dimensions in agricultural and rural statistics

The Global Strategy frames the agricultural statistical system with three data dimensions: the economic, environmental and social dimensions. For each dimension key data indicators are detailed. Incorporation of the new dimensions in the NSS in the AP region requires strong support by means of TA for the incorporation of agri-environmental and social dimensions to the traditional economic one (e.g. use of satellite environmental accounts).

[29] Global Strategy, Executive Summary page XII.
[30] PARIS21 and OECD, Counting down poverty: The role of statistics in world development, Paris, 2007.

The WCA 2010 Programme emphasizes the need of the Census of Agriculture in measuring the role of women in agriculture through the introduction of the concepts of sub-holding and sub-holder [31]. To adequately measure the contribution of women in the agriculture, rural development and home food security, it is paramount to deepen the studies on gender in agricultural statistics. TA will be needed to guide the collection of relevant information and undertaking of pertinent cross-cutting analysis.

The broader scope of agricultural statistics also poses new challenges to statisticians. How to integrate aquaculture, fishing, forestry and related activities to agricultural statistics? Which strategy would be more efficient in accordance with particular characteristics of the country to integrate knowledge on bio-fuels and households' food security? What changes are needed in the household surveys to obtain information on production at household level in rural and urban areas? How to analyze market risks associated with environmental changes? These issues require coordinated research, building of capabilities and training.

Area 6: Conducting Census of Agriculture

The Global Strategy establishes requirements for the minimum set of core data to be provided annually. The agricultural census is not only an important sampling frame for construction of the master sample (see Area 7) but also the best way to obtain disaggregated data for small administrative areas at national level.[32]

FAO recommends undertaking Census of Agriculture at least every ten years. They are framed by the World Census of Agriculture (WCA) decennial programmes since 1950. Every decennial round of censuses incorporates new or revised concepts, definitions, methodologies, scope, etc. The present census round will finish in 2015 (WCA 2010). Technical assistance is therefore required for implementing the census current round and the new one (WCA 2020) which will begin in 2016.

Other key topics for technical assistance include integration of the Census of Agriculture with the Population Census, application of the modular approach advocated in the WCA 2010, introduction of new areas as aquaculture, introduction of gender dimensions and the integration of the Census of Agriculture in the framework of the Global Strategy.

Area 7: Design and elaboration of sampling frame

One crucial aspect, to develop adequate data sources is to have reliable sampling designs. The Global Strategy advocates the construction of a master sampling frame[33]. According to the characteristics, means, background and data sources, the Global Strategy summarizes the usual different methods for constructing sampling frames: a) List frames ad-hoc that means list frames

[31] WCA 2010 Programme, page 13, §2.27 to §2.31.
[32] Global Strategy Chapter 3, page 18.
[33] Global Strategy, Chapter 4, page 20

built upon canvassing administrative or census sectors; b) List frames from registers (like the agriculture or population census); c) area frames and d) multiple frames (area and list frames).

One of the main objectives of a Census of Agriculture is to serve as a sampling frame for the on-going system of agricultural surveys (Objective c of the WCA 2010). On the other hand, the population census will provide the basis for establishing a Master Sample Frame for censuses and sample surveys conducted in the inter-census periods. Use of such a frame avoids duplicative efforts of different government agencies maintaining their own frames as a basis for selecting random samples[34]. The new approach towards master sampling frames requires technical assistance because of the extended scope of the designs and the need for strong coordination between different sources (Agricultural Census data, Population Census data, administrative registers, satellite images, geo-referenced data, aerial photography and list frames).

Area 8: Design of census and on-going statistical systems

Usually the Census of Agriculture is the basis for the establishment of sound sectoral statistical systems. Therefore, in the framework of the Global Strategy, countries will be assisted to design an integrated survey framework that, (i) provides an annual work program that is consistent from year to year, (ii) minimizes the required scope of censuses, (iii) recognizes that some data need to be collected more often than annually because of the seasonal nature of agriculture and the crop and livestock production cycles, (iv) takes into account the additional data sources that need to be included in the overall framework such as administrative data, remotely sensed data, community survey, etc.

The Master Sample Frame forms the foundation for the integrated survey framework. The final elements in the integrated survey framework are the indicators to be computed and their storage in an integrated database. The integrated database will not only provide more analytical capabilities across time, it can be used to improve data quality by comparing survey information with census data or between surveys over time. The output of the aggregated values can be input into CountrySTAT, when appropriate, following its methods and principles[35].

Area 9: Establishment of sound comparable databases

The data management system is an integral part of the survey framework advocatedby the Global Strategy. The data management system fulfills three functions: access to official statistics for dissemination purposes; storage and retrieval of survey results; and access to farm, household and geo-referenced data for research[36].

CountrySTAT is a web-based information technology system for food and agricultural statistics at the national and sub-national levels. It provides decision-makers access to statistics across

[34] Ibidem
[35] Global Strategy, page 26.
[36] Ibidem

thematic areas such as production, prices, trade and consumption and harmonizes data according to international standards and definitions. CountrySTAT has been adopted in over 20 countries, including the Philippines, Bhutan and soon by Economic Cooperation Organization (ECO) countries. Recently, CountrySTAT has embraced a regional dimension with the creation of RegionSTAT. Technical assistance will be required to assist the adoption of CountrySTAT by countries that request it.

Area 10: Incorporation of new data collection technologies

Several countries have introduced Personal Digit Assistants (PDA) and Geo-Positioning Systems (GPS) mainly for collecting data in households surveys and Population Censuses. PDAs are not extensively used in Agricultural Censuses and Surveys. The adoption of this technology requires both new design of census/surveys materials and a new management of the whole operation. New developments lead also to the need of updating some statistical practices. Some of the TA in this areas could also be provided through South-South cooperation.

For relatively new areas such as remote sensing, technical assistance could be provided through sub-regional centres to assist countries with similar needs or geographical conditions, for a more cost-effective assistance.

Area 11: Use of statistical packages for editing and processing the information

Proprietary statistical packages such as GenStat, E-views, SAS, SPSS, Stata and open-source packages such as CsPro and R are very common in Statistical Offices. Technical assistance in the use and applications of relevant statistical packages will be provided through projects to enhance local capacities in data processing, analysis and dissemination.

6. Sustainability

It is crucial that the activities started by the technical assistance not only have impact in terms of capacity built but also that they are sustainable when the project ends. The following will be done to increase the prospects for sustainability:

Ownership
Stakeholder ownership and its activities will be actively promoted throughout the life cycle of the project. In particular**,** key stakeholders in the Asia-Pacific statistical systems will be mainstreamed in the implementation of the Strategy. Ownership leads to more commitment, creativity, imagination, innovation, productivity, and domestic fund raising both by the private sector and governments. Most important, ownership leads to a statistical system that is sustainable over time.

Use of existing structures
To the extent possible, the existing structures of the AP statistical systems will be used instead of creating parallel structures.

Mainstreaming project activities in NSS
Countries and organizations will be encouraged to implement project activities as part of their current activities in agricultural statistics supported by their respective governments. This will be done through extensive advocacy among high level policy and decision-makers.

Donor support
Given the global nature of this Strategy, it is expected that funding the program will continue to receive attention from donors. At this respect the conformation of National Statistical sub-groups of donors and Governments advocated by PARIS21 should be strongly supported. As the project makes progress, countries will gain relevant experience and data collection efficiencies will be enhanced thereby reducing the cost of producing similar data in future.

Over time, producing the minimum core data is expected to constitute routine activities of NSSs in the countries and be integrated into regional/sub-regional statistical programs as well. At the regional coordination level, it is expected that this work will become part of the statistical activities of the ESCAP, ADB and other regional organizations.

7. Implementation of the TA

The implementation of the various TA activities should be coordinated at the regional/global levels to ensure consistent methods and standards (resulting in internationally comparable statistics). Technical Assistance should be defined and conducted with the national counterparts ensuring national ownership, political will and commitment. The TA should also consider other development activities that are underway at regional and national levels. Government funding of regular statistical services/activities is an important element to consider when deciding TA because it is a strong indication of national commitment and political will of on-going statistical activities in the country.

As noted earlier, the TA needs to be guided by the UN Guiding Principles for Technical Cooperation for Statistics (1999) and the Paris Declaration on Aid Effectiveness (2005). The UN Guiding Principles[37] contain a number of recommendations for improving technical cooperation within a partnership. They give goals and success of technical cooperation, good practice for technical cooperation and a checklist of specific measures and issues to be considered in implementing technical cooperation programs. In particular, according to these principles, TA should:

i) lead to exchange of expertise
ii) lead to development of skills and expertise
iii) be demand driven
iv) not distort national priorities
v) not undermine national institutions and authority.

[37] UN Statistical Commission approved the UN Guiding Principles for Technical Cooperation for Statistics, 3th session, UN Statistical Commission, N.Y. 1999

The Paris Declaration on Aid Effectiveness[38], endorsed on 2 March 2005, that recognizes the need for better statistics for more effective aid, laid down five key principles for improving the quality of aid and its impact on development. The principles are:

i) Ownership: developing countries will strongly lead their own chosen development strategies, and donor countries will help them to do so;
ii) Alignment: developing countries will prioritize capacity development, including for financial management and efficient procurement, and donor countries will align their efforts on the institutions and systems chosen;
iii) Harmonization: donor countries will harmonize and simplify their procedures for the provision of development aid, to make them less burdensome (especially for fragile states) and aid supply more efficient;
iv) Managing for results: donor countries will work with developing countries, emphasizing results indicators chosen by the latter, to strengthen capacities for results-based decision-making;
v) Mutual accountability: developing and donor countries alike seek to strengthen transparency and accountability to the public in their use of development resources.

References

1 UN Guiding Principles for Technical Cooperation for Statistics

2 Paris Declaration on Aid Effectiveness

3 Action Plan for Africa (2011-2015)

4 ISI and Mozambique National Statistical Institute, Report of the ISI satellite meeting on agricultural statistics, Maputo, Mozambique, 13-14 October 2009.

5 Report Country Assessment 19JunCARS

6 Implementation of the Global Strategy for Agricultural Statistics, Preparation of a Plan for the Technical Components (Technical Assistance-Latin America Region).

[38] Paris Declaration on Aid Effectiveness, High Level Forum, Paris, 28 February-3 March 2005

Annex

F. Training Component of RAP

1. Introduction

The case for strengthening capacities to improve agriculture and rural statistics has been clearly established in section III of the Asia-Pacific Regional Action Plan. The discussions bring out key issues faced by countries in the Asia and the Pacific region-- identifying common concerns across the region and at the same time, highlighting the wide diversity among countries in the status of agriculture and rural data and statistics. The obvious implication is that training must address both common region-wide concerns and country-specific needs.

Training is essential in the processes of raising, strengthening, maintaining and keeping standing the three pillars of the global strategy. For training to effectively contribute to the attainment of the impact and outcomes of the regional action plan it must be attuned to country-specific aspirations and versions of the pillars (a minimum set of indicators; an integrated and comprehensive national statistical system; governance and capacity building supporting sustained development of agricultural and rural statistics).

Yet, most training on agricultural and rural statistics in the region has been sporadic, with very few regular training programmes on agriculture statistics. At the regional level, an annual programme is the 2-month Japan International Cooperation Agency (JICA) Group Training Course on Planning and Designing of Agricultural Statistics for Agricultural Policy Making conducted by the Ministry of Agriculture, Forestry and Fisheries of Japan. On a smaller-scale, the Statistical Institute for Asia and the Pacific (SIAP), a regional institution of ESCAP, incorporates agricultural statistics in its annual JICA group training course on production and use of official statistics as well as its bi-annual two-months course on economic statistics. At the country level, the Indian Agricultural Research Institute has been providing training on agriculture statistics as part of its regular programme of work.

Many of the other 'regular' training programmes at the regional and country levels have been in connection with the world programme on censuses of agriculture. Or training associated with specific capacity building projects such as the regional project "Improvement of Agricultural Statistics in Asia and Pacific Countries (GCP/RAS/171/JPN)" (1999-2001) and the follow-on project "Strengthening Regional Data Exchange System on Food and Agricultural Statistics in Asia and Pacific Countries (GCP/RAS/184/JPN)". The FAO Statistical Capability Building Programme has also provided in-country and conducted regional training and workshops.

However, there is strong capability in the region in the provision of training in non-agricultural statistics. This existing training infrastructure can be tapped as implementing partners for the regional action plan. An indicative list of training providers is included in **Annex E1**.

2. Training Principles and Strategy

2.0- Country-driven, but capitalizing on synergies from region-wide commonalities

Training addresses country-specific requirements that are embodied in the country Sector Strategic Plan formulated on the basis of country assessments. A training needs assessment must be part of these assessments.

While focusing on country-specific requirements, the training component as well recognizes the value-added of regional and sub-regional level training initiatives to address common areas of concern, facilitate sharing of good practices, bring together producers and users of statistics and advocacy and awareness-raising events.

2.1- Target groups and training goals

Training involves the following key country stakeholders:

- At the individual (I) level:
    - managers and technical staff engaged in the various phases of the agricultural and rural statistics business process[39]
    - users of agricultural and rural statistics government (national and local)—planners, policy makers, programme implementers, researchers, analysts
    - training providers (trainers, educators, human resource development staff of organizations) on agriculture and rural statistics
- At the group (G) level:
    - providers of information on agriculture and rural statistics (farmers, entrepreneurs)
    - politicians and decision-makers on budget, finance and allocation of government resources
- At the organization (O) level:
    - Producers and users (NSS)
        - national statistical offices
        - ministries of agriculture, fisheries and forestry; ministries of planning
        - local governments
    - Institutional training providers (ITP)
        - Statistical training and research institutes
        - Universities offering degree programmes in statistics and related disciplines

The needs and goals for training differ for each of these, as follows:

- At the individual level: to increase their knowledge, skills, and competencies.
- At the group level: to increase statistical literacy and appreciation of the importance of their roles in improving agricultural and rural statistics.

[39] Refer to the Generic Statistical Process Business Model (GSPBM), for example.

- At the organizational level, producers and users: to strengthen capabilities to identify their priority needs for training and to improve the management of their human resources.
- At the organizational level, institutional training providers: to strengthen the capacity to design and deliver effective in-country training courses in line with identified needs of individuals and organizations

Thus, training programmes targeted for each of these levels will be developed.

2.2- Training modalities

Training activities will be designed and delivered at the country, sub-regional and regional levels. These will be in the form of on-site (or face-to-face) training courses and workshops, online courses and seminars, on-the-job training and apprenticeships, and study tours/internships arranged through a South-South cooperation mechanism.

2.3- Phased (Stepped-up) implementation

Training activities will be implemented in two phases.

Pilot training programmes: 1st phase

Pilot training programmes will aim at addressing the most urgent/basic needs in the region. Another important objective of the pilot will be advocacy and raising awareness of policy makers. This will be achieved through organizing regional workshops, seminars, dialogue between producers and users. This is important for securing commitment, support, and ownership for the comprehensive training programme phase that follows next. Outputs and lesson learned in the pilot phase will be used as inputs to the next phase and recommendations will be put forward.

The training needs assessment will provide information on urgent/basic training needs and current training capacity in the region. Trainings that can be developed and delivered in short-term, or short training courses already available in the region as well as training on guidelines currently being developed by the Global Office will be considered in this phase.

SIAP and selected national training institutes will develop and deliver training in this phase.

Comprehensive Training Programmes: 2nd phase

The main training programme will address the training gaps identified in the training needs assessment, the research component and technical assistance component.

2.4- Standardization for sustainability

Training assessments and training design will be based on standardized instruments, including the use of a core skills framework (CSF). The United Nations Statistical Institute for Asia and

the Pacific (SIAP), a regional institute of ESCAP, has developed a generic core skills framework[40] which is being used in the design of training courses. This can be adopted and refined for developing one for the purposes of agriculture and rural statistics.

Standardized training curricula/modules and materials will be developed for in-country training courses. These will be developed and implemented as part of the capacity building of institutional training providers through a training-for-trainers programme.

A system of accrediting or certifying trainers on agricultural and rural statistics will also be put in place. Such a system will not only enhance sustainability in capacity building by creating a pool of trainers, but will also serve the important purpose of standardizing training.

2.5- Knowledge Base and Knowledge Management

Capacity-building activities of training, research and technical assistance at global and regional level will generate a wealth of knowledge which will be systematically compiled and made available through an interactive and secured website such as the Community for Agricultural and Rural Statistics (CARS at http://cars.adb.org). On-line seminars and courses can also be hosted through this community of practice facility.

2.6- Coordination of Training

In the Asia and Pacific region, coordination of statistical capacity building activities has been institutionalised through the *Partners for Statistics Development in Asia-Pacific (the Partnership)*[41], a regional network of international, regional and sub-regional organizations and bilateral donors concerned with the improvement of statistics in Asia and the Pacific. The main purpose of the partnership is to improve the combined impact of capacity building activities through enhanced coordination, synergy and complementarities among partners.

The ESCAP Committee on Statistics has also created a *Working Group on Regional Coordination of Statistical Training*[42] to develop a strategy for improving coordination of training, including a recommendation for a mechanism for coordination of statistical training in the region.

The training component subscribes to the need for coordinating training initiatives with the various training providers in the region (refer to **Annex** for an indicative list), following the principles of the Partnership and the strategy and mechanism to be adapted by the Committee on Statistics. Thus, the institutional training coordinator for the training component (discussed under implementation arrangements) will establish linkages/membership to these coordination mechanisms.

[40] SIAP Core Skills Framework at http://www.unsiap.or.jp/about_siap/coreskill.php
[41] http://www.unescap.org/stat/partnership/index.asp
[42] http://www.unescap.org/stat/WG-stat-training/index.asp

3. Desired Outputs and Key Activities

The planned activities under the training component are designed to contribute to the key outputs of the regional action plan listed in Section IV, as indicated below.

A. Regional governance structure in place

A1.	Preparation of Phase 1 training implementation plan
A2.	Preparation of concept note on establishing regional network of training institutions
A3.	Preparation of concept note on system of certification of trainers

B. Country-specific minimum set of agricultural and rural statistics indentified by each country using the minimum set of core data contained in the Global Strategy as the basis

B1.	Training on Country Assessment Questionnaire for in-depth assessments
B2.	Development of standardized training curricula/modules relevant to the identification of the country-specific minimum core set of statistics and implementation of training
B3.	Training on standards and methods of basic agriculture and rural statistics and indicators: production, economic, social and environmental impacts

C. Sector Strategic Plans for Agricultural and Rural Statistics (SSPARS) as a component of the National Strategies for the Development of Statistics (NSDS) provide the national framework for the implementation.

C1.	Development of standardized training curricula/modules relevant to the formulation of country agricultural statistics action plan and training on formulation of action plan
C2.	Training on gap analysis of core requirements and qualifications of statistical staffs

D. Improved political support by decision makers for agricultural and rural statistics in terms of provision of budget and resources

D1.	Training on advocacy and communication strategies and development of business cases for increasing political and public support

D2.	Workshops for increasing statistical literacy and enhancing appreciation of the importance of agricultural and rural statistics

E. Strengthened legal and coordination mechanisms and frameworks for agricultural and rural statistics

E1.	Workshops and seminars in support of advocacy for and integration into the statistics development strategies and plans

F. Enhanced capacity of NSS to advocate for adequate resources for developing and compiling country-specific minimum set of agricultural and rural statistics

F1.	Develop materials and conduct training on advocacy and communication strategies and development of business cases for increasing resource support
F2.	Develop materials and conduct training to improve communication skills with policy and decision makers, and private sector data users

G. Increased ability of NSS to access and use ICT for production and dissemination of minimum set of agricultural and rural statistics

G1.	Training on use of ICT for production of relevant country-specific minimum set of statistics: including remote sensing
G2.	Training on use of ICT for dissemination of country-specific minimum set of statistics
G3.	Training on documentation, preservation and archiving of agriculture and rural statistical data
G4.	Development of e-learning tools on uses of different types of software and communications technology

H. Improved competencies of NSS to produce and disseminate minimum set of agricultural and rural statistics in accordance with international standards & good practices through training and technical assistance

H1.	**(Multiple programmes)** Design, developing of materials and delivery of targeted training programmes (guided by training principles and strategies: various target groups; appropriate training modalities; phased implementation, etc) on statistical processes that are responsive to NSS staff needs to produce the country-specific minimum core set of agriculture and rural statistics and their uses and analyses; in response to training needs linked to research and technical assistance components including: *coordinating agricultural and population censuses; developing master sample frame; survey integration; sample design; estimation; analysis of data*

I. Strengthened capacity of national and regional training institutions to develop and deliver relevant, efficient, and effective training in agricultural and rural statistics

I1.	Development and training on implementation of training needs assessment tools, including core skills framework for agriculture and rural statistics
I2.	Develop and pilot standardized training and materials for in-country courses in areas identified in training needs
I3.	Training-of-trainers in basic and specialized areas identified in training needs assessment
I4.	Develop and pilot a graduate degree programme curriculum for statisticians that is tailored for agricultural and rural statistics through twinning arrangements between a statistical research and training institute and a university
I5.	Develop and implement system for accrediting/certifying trainers
I6.	Establish and maintain informal network of training and research institutions through CARS or other relevant modalities

J. Improved capacity of countries to adopt cost-effective and reliable methods for producing minimum set of agricultural and rural statistics

J1	Preparation of handbooks and training materials on cost-effective methods developed by research component

K. Increased capacity of countries to use agricultural and rural statistics to meet priority needs for policy making, operation of efficient markets, and foster sound investment

K1.	Prepare training materials and conduct training on connecting the economic, social and environmental aspects of agriculture
K2.	Training on innovative presentation of statistics

4. Implementing arrangements

The training component will be coordinated by the Statistical Institute for Asia and the Pacific (SIAP). An Implementation Unit will be set up within SIAP as part of the Regional Office (refer to page 7). The RAP will provide a full-time statistician to be based in SIAP who will be responsible for coordination and delivery of training activities. The full-time statistician will work under the supervision of the Director of SIAP and the Coordinator of the Regional Office. SIAP regular staff will assist in the implementation of training activities.

Implementation at the regional level will be through training providers in the region who agree to be part of the regional network of training institutions for agricultural statistics. Likewise, national training institutions and universities who join the network will be tapped to implement training activities.

Indicative list of training providers in Asia and the Pacific
International/Regional/sub-regional Training Centers/Programmes
1. United Nations Statistical Institute for Asia and the Pacific (SIAP-ESCAP)
2. Secretariat of the Pacific Community
3. FAO Statistical Capacity Building (SCB) Programme
4. International Labour Organization
5. International Monetary Fund
6. Interstate Statistical Committee of the Commonwealth of Independent States (CISSTAT)
7. Statistical, Economic and Social Research and Training Centre for Islamic Countries (SESRIC)
8. World Bank/PARIS21- NSDS; IHSN Programme
National Statistical Training Centres in Asia and the Pacific
9. Australia- Australian Bureau of Statistics
10. China - Statistical Education and Training Center (China International Training Center), National Bureau of Statistics (NBS)
11. India- Indian Agricultural Statistics Research Institute; International Statistical Education Centre (ISEC), Indian Statistical Institute (ISI) & National Academy of Statistical Administration, Ministry of Statistics and Programme Implementation
12. Indonesia – Education and Training Center (ETC), BPS-Statistics Indonesia
13. Islamic Republic of Iran – Statistical Centre of Iran (SCI) & Statistical Research and Training Centre (SRTC)
14. Japan- Ministry of Agriculture, Forestry and Fisheries
15. Malaysia – Statistical Training Division, Department of Statistics, Malaysia
16. New Zealand- Statistics New Zealand
17. Philippines – Statistical Research and Training Center (SRTC)
18. Republic of Korea – Statistical Training Institute (STI), Statistics Korea (KOSTAT)

Annex

G. Research Component of RAP

1. Desired Outputs

The activities under research component are formulated to achieve the following outputs for improving agricultural and rural statistics:

J. Improved capacity of countries to adopt cost-effective and reliable methods for producing minimum set of agricultural and rural statistics

J1. Improved ability of countries to adopt methodological research results, guidelines and frameworks for agricultural and rural statistics

J2. Better access of countries to methodological research results, guidelines and frameworks for agricultural and rural statistics

Some of the activities will also contribute to achieving the following outputs:

G. Increased ability of NSS to access and use ICT for production and dissemination of minimum set of agricultural and rural statistics

I. Strengthened capacity of national and regional training institutions to develop and deliver relevant, efficient and effective training in agricultural and rural statistics

K. Increased capacity of countries in the use of agricultural statistics to meet priority needs for policy making, operation of efficient markets and foster sound investment

2. Issues

Many economies in the region – those that are highly industrialized or with high per capita income and those middle income countries with mature national statistical systems can readily adopt cost-effective and reliable data collection methods once these needs are identified in their respective statistics development plan because they have sufficient resources. Some of these countries can also share their methods and expertise with other countries. Others may have the resources, but may not be fully aware of the advances in methodology in other countries and those that have been developed in research institutions.

There are also countries that regularly compile some statistics but the quality of which can still be upgraded, and many countries without or with irregularly compiled agricultural and rural statistics. The possible causes for irregular or non-compilation are the inadequacy of the current infrastructure to address the current demands, lack of resources, and low level of awareness of available methods, and inadequate skills in developing or adopting more reliable and cost-effective methods.

The master sampling frame (or sampling frame) for agricultural and rural statistics as recommended by the Global Strategy is a good approach for generating statistics of better coverage and quality. However, it should not be considered as the only solution because not many economies have the resources for adopting and maintaining one. Having a master sample frame can be a long-term goal but there must be some solutions in the short term that may be identified through methodological research.

Many countries use their administrative reporting system because the data collection infrastructure is well entrenched in the bureaucracy of the government and hence, summary statistics are timely and inexpensive. However, these statistics do not have valid estimates of sampling error and are often perceived to be biased because they are usually collected by agriculture extension workers who have vested interest to provide support for their own achievement. Comparative analysis of the summary statistics with other available statistics can be used to convince the bureaucracy to improve their system of data collection.

The preferred method for data collection is probability sample surveys over compiling only summary statistics from administrative reporting systems because survey data allows for more in-depth policy analysis and also provides for reliability measure. However, not all countries can afford to conduct periodic sample surveys. If governments depend on donor funds for conducting surveys, then estimates across time may not be consistent and timely for purposes of policy formulation and monitoring.

The sustainability of data collection system, be it sample surveys or administrative reporting systems, in many developing economies can be supported by research that can yield cost-effective and reliable methods. Useful research results may already be available through the research or academic institutions in the region or in other regions, but countries that need them have not yet adopted them because they are not familiar with these results or they lack staff that are skilled for this purpose.

Another important factor that supports sustainability of agricultural and rural statistics is the use of these statistics in countries. Statistics is well supported by governments in countries that use statistics for policy making and monitoring, for identifying and understanding critical issues, for designing project and program interventions and for forecasting.

a. **Key Activities and Methodology**

The key activities that will be undertaken under the research component are:

i. Work with selected national statistical system, research institutions and academe in adopting cost-effective and reliable methods.
ii. Collaborate with the national statistical system and other relevant government agencies (data users) in analyzing available data from surveys and from administrative reporting systems to contribute to evidence-based policy making and generate support for improving agricultural and rural statistics.

iii. Disseminate research results and analytical reports through conferences, workshops and seminars as well as through an interactive website such as the Community for Agricultural and Rural Statistics (CARS at http://cars.adb.org).
iv. Establish and support an informal network of research and training institutions in the region through an interactive website such as CARS.
v. In collaboration with countries and the technical assistance component, develop and implement a mechanism for staff exchange/apprenticeship programs between countries.
vi. In collaboration with training component, develop training programs that will upgrade the skills of key staff of national statistical system in adopting available methods or developing new methods

This component will complement the activities on methodological research that will be spearheaded by the Research Unit in the Global Office (per Global Action Plan). Activities (i) and (ii) will be undertaken with selected economies on the basis of the country action plans or after holding extensive discussion with concerned government agencies on their priority areas and securing the government's commitment in institutionalizing methods that have been successfully adopted and in supporting the wide dissemination of analytical reports. The activities that are designed will be country-led and will address country-defined needs. Collaboration and partnership with existing institutions will be sought in undertaking these activities.

Work with selected national statistical system in adopting cost-effective and reliable methods

The methods that should be adopted must be affordable for governments. For example, for those with regular household survey systems but with no crop or livestock or fisheries production surveys, instead of introducing a new survey on farming and livestock activities, a module on this topic can be introduced in the household income and expenditure survey (HIES) and administered to respondents in rural areas. Sampling strategies of the household survey systems have to be examined, and if necessary revised to ensure that the rural areas have adequate sample sizes. Since food security needs to be measured more frequently, food security questions can be included in the survey that is more frequently conducted – the labor force survey. This approach is perhaps more cost effective than enjoining countries to conduct a new full survey round. However, there are many issues that need to be resolved: (a) data ownership and reporting responsibilities – will it be the national statistics offices or the ministry of agriculture; (b) response burden – HIES and LFS have to be examined and streamlined; (c) sampling strategy has to be studied.

Other types of research that can be undertaken in collaboration with countries are as follows:

- Using new technology for improving agricultural statistics data compilation methods. In the recent years, new technologies such as satellite imagery and remote sensing have been used by industrialized countries for compiling agricultural statistics. These technologies are very

costly and require technical skills beyond those that are available in national statistical systems of developing countries. There are, however, recent developments such as Google maps, GPS, hand-held device applications that are used in developing countries and which are not expensive. They can be used to define/identify boundaries more accurately, spot changes in the sampling units, measure area of irregularly shaped holdings.

- Evaluating data quality. The United States use satellite imagery through MODIS (Moderate Resolution Imaging Spectroradiometer) for estimating and forecasting yield and production of major crops. Because of its Open Data initiatives, MODIS image gallery for many countries' agricultural areas is now available on-line through the US Foreign Agricultural Service website (http://www.pecad.fas.usda.gov/remote.cfm).

  Using the image gallery, yield analysis, crop area validation and verification can be performed. In this regard, MODIS can be used to compare crop production estimates from administrative reporting systems and hence, provide an alternative approach to generating production estimates that may be biased.

  Other possible ways of evaluating data quality can also be explored such as analysis of the business process, comparative analysis of census of agriculture, agricultural surveys, key informants and local government unit records, and some econometric analysis.

  From the results of this methodological study, a business process to improve estimates derived from administrative reporting systems can be developed. The resulting methods can also leapfrog countries without any crop production estimates at present to having reliable crop production estimates.

- Improving the sampling frame for agricultural surveys. For countries that have recently conducted either a census of agriculture or a census of population and housing, the sampling frame (or what the Global Strategy terms as master sampling frame) for agriculture surveys can be developed and updated. For countries that have not conducted any census in the recent years, MODIS or similar modality can also be used as inputs (e.g. more accurate stratification variables) in the development of good sampling frames for agricultural surveys. Other new technologies that are cost-effective for improving sampling frames are GPS and Google Earth. Local government maps, data from key informants such as village chiefs are potential additions to the sampling frame information, although these often need validation or checked for gross errors against other sources.

Collaborate with the national statistical system and other relevant government agencies in analyzing available data

For countries with household surveys that are conducted irregularly, providing financing for such surveys will not result in continuous data series on agricultural and rural statistics. These countries should be encouraged to include such indicators for monitoring their development

plans. Through memoranda of understanding with country teams comprising representatives from the national statistical system and other relevant government agencies, joint policy analysis using available data from existing household surveys will be undertaken.; e.g. Analysis of households with farm holdings using household income and expenditure surveys that have already been conducted. Farming households can be extracted from these surveys to make up the subset data for analysis. This analysis is needed to provide a profile of small farmers for planning purposes. This approach could increase the user base of agricultural and rural statistics and improve the analytical skills of national statistical system's and other government agencies' staff without incurring high costs and consequently increase the demand for these statistics and ensure government's budget appropriation for such purpose.

Disseminate research results and analytical reports

The results of research with selected countries and the analytical reports from the analysis of existing data will be widely disseminated through in-country seminars and workshops and if funds are available, through an annual regional conference in which the research institutions and universities with progressive research on data compilation methods for agricultural and rural statistics will also be invited to participate. These workshops, seminars and conferences will raise the awareness of national statistical systems about new methods and will allow them to directly interact with research institutions and the academe.

The research results and analytical reports from activities (i) and (ii) respectively, can also be published on the Internet and can be further popularized through blogs and discussion groups in the interactive and secured website such as the **C**ommunity for **A**gricultural and **R**ural **S**tatistics (**CARS** at http://cars.adb.org). The guidelines, manuals and other documents developed by the Research Unit will be disseminated through the region's interactive website and if, necessary, through research conferences and seminars. "Ask the experts" section will also be established to support information sharing and improve the access of national statistical systems staff to research results and technical information.

On-line seminars can also be hosted through the website to which participants from various countries can join and interact with the speaker and others. These seminars can be recorded and downloaded for future reference. Similarly, on-line interactive courses can be developed and hosted in CARS such that staff from national statistical systems can access and learn from them on their own time.

Establish an informal network of research and training institutions that can be hosted in an interactive website

With those research institutions and academe that are represented in the regional conference that will be organized annually (subject to funding availability), an informal network of research and training institutions can be established. A directory of experts can be stored in a database system and disseminated through an interactive and secured website such as CARS. Similar to SGAS

members, the members of the informal network can be given a room to discuss issues and access members' pertinent information and share research outputs.

Develop and implement a mechanism for staff exchange/apprenticeship programs between countries.

The diversity of national statistical systems in the region presents a good opportunity that can be exploited for the purposes of this action plan. The state of compilation of agricultural and rural statistics vary widely across economies (countries) in the region, with some countries that have already implemented advanced methods and technology and others that are still starting to develop their own methods. A mechanism like a memorandum of agreement between countries can be developed and implemented that would allow one to host another countries' staff to work for a period so that the apprentice staff will be able to learn how to adopt new methods and undertake his/her own research and data analysis. Funding support can be offered to the apprentice staff.

Upgrade the skills of key staff of national statistical system in adopting available methods or developing new methods

In collaborating with selected countries' national statistical systems to perform activities (i) and (ii), the counterpart staff of these agencies are also given on-the-job training. To help upgrade their skills further, the research component will work with the training component in developing training materials such as on-line courses, handbooks and toolkits that can help national statistical system staff develop skills for adopting available methods or even developing new ones.

In the long term, the research component may also work with a university to develop a graduate study curriculum for upgrading the applied and necessary mathematical statistics skills of statisticians that are needed for undertaking independent methodological research.

3. Budget

Table 1. Cost Estimates (‘000 US$)

As specified in the global action plan, research on methods will be coordinated by FAO which will identify the best regional research institutions to undertake them. To complement this approach and to encourage the participation of national statistical systems in the Asia and the Pacific, ADB will provide small financial grants to eligible statistical agencies to undertake their own methodological research in close collaboration with ADB statisticians.

Activity	**2013**	**2014**	**2015**	**2016**	**2017**	**Total**
Methodological Research	250	250	250	250	250	1250
Policy Analysis	100	100	100	100	100	500
Dissemination	100	100	100	100	100	500
Interactive Website	50	50	50	50	50	250
Apprenticeship Programs		100	100	100	100	400
On-line courses		50	50	50	50	200
Total	500	650	650	650	650	3100

Annex

H. Workplan

Technical Assistance Activities

Output/Activity	2013				2014				2015				2016				2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Output A. Regional governance structure in place																				
A1. Regional Steering Committee																				
A2. Regional Coordinating Office																				
Output B. Country-specific minimum set of agricultural and rural statistics identified by each country using the minimum set of core data contained in the Global Strategy as the basis																				
B1. In-depth country assessments																				
B2. Baseline information																				
B3. TA programmes																				
Output C SSPARS as a component of the NSDS provide the national framework for implementation																				
C1. Adapting global guidelines																				
C2. Preparation of SSPARS																				
C3. Country proposals																				
Output D. Improved political support by decision makers for agricultural and rural statistics in terms of provision of budget and resources																				
D1. Development of business cases																				
D2. Technical meetings to showcase agri-statistics																				
Output E Strengthened legal and coordination mechanisms and frameworks for agricultural and rural statistics																				
E1. Support legal frameworks																				
E2. Promote coordination																				
E3. Integrate agri-environmental and social issues																				
Output F. Enhanced capacity of NSS to advocate for adequate resources for developing and compiling country-specific minimum set of agricultural and rural statistics																				
F1. Promote use of best advocacy practices																				
F2. Prepare resource mobilization plans																				

Output G. Increased ability of NSS to access and use ICT for productions and dissemination of minimum set of agricultural and rural statistics																					
G1. Build capacity and infrastructure																					
G2. Use of software and IT G3. Data management & harmonization (CountrySTAT)																					
Output H. Improved competencies of NSS to produce and disseminate minimum set of agricultural and rural statistics in accordance with international standards and good practices through training and technical assistance																					
H1. Plan agri-census																					
H2. Integrated surveys & databases																					
H3. Audit of administrative data H4. Improve data consolidation and comparability																					
Output I. Strengthened capacity of national and regional training institutions to develop and deliver relevant, efficient, and effective training in agriculture and rural statistics																					
I1. In-country use of acquired technical knowledge																					
I2. Regional centers of excellence in technical areas																					
Output J. Improved capacity of countries to adopt cost effective and reliable methods for producing minimum set of agriculture and rural statistics																					
J1. Sound statistical methodology																					
J2. Reconcile data from different sources																					
J3. Accuracy and reliability																					
Output K. Increased capacity to use statistics for policy making, operation of efficient markets and foster sound investment																					
K1. Data analysis for decision making																					
K2. Cross-cutting analysis																					

Training Activities

Activity	2013				2014				2015				2016				2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Output A- Regional governance structure in place																				
A1- Phase 1 plan preparation																				
A2- Concept: network																				
A3- Concept: certification																				
Output B- Country assessments and determining country-specific set of core indicators																				
B1- Training: assessments																				
B2- Training: core set																				
B3- Training: basics																				
Output C- Integration of agriculture into NSS based on NSDS																				
C1- Training: action plans																				
C2- Training: gap analysis																				
Output D- Improved political support for agricultural statistics																				
D1- Training: advocacy tools																				
D2- Training: statistical literacy																				
Output E- Strengthened legal and coordination mechanisms																				
E1- Seminars: advocacy																				
Output F- Enhanced capacity of NSS to advocate for adequate resources																				
F1- Training: advocacy tools																				
F2- Training: communication																				
Output G- Increased ability of NSS to access and use ICT																				
G1- Training: ICT (Production)																				
G2- Training: ICT (Dissemination)																				
G3- Training: Documentation																				
G4- e-Learning development																				
Output H- Improved competencies of NSS to produce and disseminate minimum set of agricultural and rural statistics																				
H1- Multiple programmes																				
Output I- Strengthened capacity to provide training																				
I1- Training: CSF																				
I2- Pilot standardized training																				
I3- Training of trainers																				
I4- Pilot graduate programme																				
I5- Certification system																				
I6- Informal network																				
Output J- Capacity to produce cost-effective agricultural statistics																				
J1- Preparation of handbooks																				
Output K- Capacity to effectively use statistics for policy-making																				
K1- Training: Policy orientation																				
K2- Training: Innovative presentations																				

Research Activities (related to achieving output J and partially to outputs G, I and K)

Activity	2013				2014				2015				2016				2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
i. Work with selected countries in developing cost effective and reliable methods																				
ii. Analysis of existing survey data with both NSS and other government agencies																				
iii. Disseminate research results and analytical reports																				
iv. Establish an informal network of research and training institutions																				
v. Develop and implement a mechanism for staff exchange/apprenticeship programs (with technical assistance)																				
vi. Develop training programs to upgrade skills of NSS staff in adopting new methods. (with training)																				

Annex

I. Budget

The budget presented in Annex I represents the estimated costs as seen by the implementing partners FAO and ESCAP. Contributions from the ADB have not been included for the proposed estimates below.

Budget for five years involving 20 countries (in US$)

Regional Governance Structure for Asia Pacific	Target budget	Unit	No. of Units (a)	Unit Cost (a)	Priority Budget
Regional offices staff	***2,600,040***				***2,600,040***
Regional Office Coordinator P4	934,980	month	60	15,583	934,980
Statistician for TA P4 (will devote half of the time to delivering TA at regional level, thus half of the salary is charged to TA) – *Bangkok based*	467,520	month	60	7,792	467,520
Statistician for Training P4 (will devote half of the time to delivering training at regional level, thus half of the salary is charged to training) – *SIAP based*	467,520	month	60	7,792	467,520
Specialist for M&E (shared with LA) P3	430,020	month	60	7,167	430,020
National Operations Assistant	210,000	month	60	3,500	210,000
Secretary	90,000	month	60	1,500	90,000
Regional Steering Committee meetings	200,000	meeting	12	10,000	120,000
Travel Regional Coordinator and M&E expert for oversight of implementation	***260,000***				***260,000***
Tickets (13 per year)	162,500	*ticket*	65	2,500	162,500
Perdiem (6 day mission)	97,500	*days*	390	250	97,500
Communication and Advocacy	130,000	region	5	20,000	100,000
Total Regional Governance Structure Budget	**3,190,040**				**3,080,040**

Technical Assistance Budget for Asia Pacific	Target budget	Unit	No. of Units (a)	Unit Cost (a)	Priority Budget
1. General	***742,520***				***742,585***
Technical assistance by regional staff (half staff time)	467,520	month	60	7,792	467,520
Travel: TA Expert for backstopping					
Tickets (10 per year)	100,000	*ticket*	50	2,000	100,000
Perdiem (6 day mission)	75,000	*days*	300	250	75,000
TA: Support to countries for preparation of regional level advocacy material, twinning between countries	100,000	years	5	20,013	100,065
2. *Output B.* Country-specific minimum set of agricultural and rural statistics identified by each country using the minimum set of core data contained in the Global Strategy as the basis	**490,000**				**490,000**
National consultant (2 months per country)	120,000	countries	20	6,000	120,000
International consultant travel costs (in addition to 1 week support provided by regional statistician)	200,000	countries	20	10,000	200,000

National stakeholders workshop (2 per country)	80,000	countries	20	4,000	80,000
Support to country assessment national technical workshop (1 per country)	30,000	countries	20	1,500	30,000
GOE country assessment	60,000	countries	20	3,000	60,000
3. *Output C.* Sector Strategic Plans for Agricultural and Rural Statistics (SSPARS) as a component of the National Strategies for the Development of Statistics (NSDS) provide the stages for the implementation.	**1,400,000**				**720,000**
National Consultant (2 months per country)	120,000	countries	20	6,000	120,000
International consultant travel cost (in addition to 12 weeks support provided by statistician, GS, and regional office	500,000	countries	20	15,000	300,000
National stakeholders workshop (3 per country)	600,000	countries	20	12,000	240,000
GOE NSDS	100,000	countries	20	3,000	60,000
Regional level workshop	80,000	region	0	80,000	0
4. *Output D.* Improved Political Support by decision-makers for agricultural and rural statistics in terms of provision of budget and resources	**780,000**				**420,000**
National consultant (1 month per country)	120,000	countries	20	3,000	60,000
International consultant (2 weeks per country)	600,000	countries	20	10,000	200,000
National stakeholders workshop (1 per country)	60,000	countries	20	8,000	160,000
5. *Output E*. Strengthened legal and coordination mechanisms and frameworks for agricultural and rural statistics.	**300,000**				**200,000**
Strengthening national governance – local costs 5,000 USD per country	100,000	countries	20	5,000	100,000
International consultant travel cost (1 weeks support provided by statistician, GS, and regional office)	200,000	countries	20	5,000	100,000
6. *Output F*. Enhanced capacity of NSS to advocate for adequate resources for developing and compiling country-specific minimum set of agricultural and rural statistics	**90,000**				**160,000**
National consultant (1 month per country)	30,000	countries	20	3,000	60,000
National stakeholders workshop (1 per country)	60,000	countries	20	5,000	100,000
7. *Output G*. Increased ability of NSS to access and use ICT for production and dissemination of minimum set of agricultural and rural statistics	**2,530,000**				**1,122,000**
National consultant (1 month per country)	60,000	countries	20	3,000	60,000
International consultant (2 weeks per country)	600,000	countries	20	10,000	200,000
National stakeholders workshop (1 per country)	200,000	countries	20	5,000	100,000
Computer (1 per country)	40,000	countries	20	1,600	32,000
Software licenses (1 per country per year)	400,000	countries	20	10,000	200,000
General operating expenses (lump sum)	50,000	countries	20	2,500	50,000
National staff travel outside (3 missions)	180,000	countries	20	9,000	180,000

Technical working groups for data harmonization (3 per country)	1,000,000	countries	20	15,000	300,000
8. *Output H*. Improved competencies of NSS to produce and disseminate minimum set of agriculture and rural statistics in accordance with international standards and good practices through training and technical assistance	**1,330,000**				**735,100**
National consultant (1 month per country)	60,000	countries	20	3,000	60,000
International consultant (2 weeks per country)	600,000	countries	20	10,000	200,000
National stakeholders workshop (1 per country)	200,000	countries	20	5,000	100,000
Computer (1 per country)	40,000	countries	20	1,500	30,000
Software licenses (1 per country per year)	200,000	countries	20	6,000	120,000
General operating expenses (lump sum)	50,000	countries	20	2,255	45,100
National staff travel outside (3 missions)	180,000	countries	20	9,000	180,000
9. *Output I*. Strengthened capacity of national and regional training institutions to develop and deliver relevant, efficient, and effective training in agricultural and rural statistics	**960,000**				**260,000**
National consultant (1 month per country)	60,000	countries	20	3,000	60,000
International consultant (1 week per country)	600,000	countries	20	5,000	100,000
National stakeholders workshop (1 per country)	300,000	countries	20	5,000	100,000
10. *Output J*. Improved capacity of countries to adopt cost effective and reliable methods for producing minimum set of agricultural and rural statistics	**3,230,000**				**2,616,000**
Field operation for testing (1 per country - cost of field staff and transportation)	1,000,000	countries	20	40,000	800,000
International consultant 8 weeks per country (in addition to 4 weeks provided by regional statistician)	800,000	countries	20	30,000	600,000
National consultant (3 months per country)	180,000	countries	20	9,000	180,000
Field equipment for pilot test (1 per country)	1,000,000	countries	20	40,000	800,000
Computer software and GOE (1 per country)	200,000	countries	20	9,300	186,000
Workshop on new methods for agriculture statistics (1 per country)	50,000	countries	20	2,500	50,000
11. *Output K*. Increased capacity to use statistics for policy making, operation of efficient markets and foster sound investment	**160,000**				**160,000**
National consultant (1 month per country)	60,000	countries	20	3,000	60,000
International consultant (Travel cost per country)	100,000	countries	20	5,000	100,000
Technical Assistance Budget Total	**12,012,520**				**7,625,685**

Training Budget for Asia Pacific	**Target budget**	**Unit**	**No. of Units (a)**	**Unit Cost (a)**	**Priority Budget**
1. Output A. Regional Governance structure in place	**812,500**				**534,830**
Training implementation unit					
• Training coordinator	467,500	months	42	7,792	327,264

• Communication; supplies and materials	25,000	years	5	2,500	15,066
• Travel (14 trips per year)	175,000	tickets	50	2,000	100,000
• Travel and per diems (5 day missions)	105,000	days	250	250	62,500
Consultants for preparation of concept notes	40,000	months	2	15,000	30,000
2. Output B. Country-specific minimum set of agricultural and rural statistics identified by each country using the minimum set of core data contained in the Global Strategy as the basis	**525,000**				**185,000**
Regional workshop/TOT on country assessment questionnaire and process	100,000	region	0	50,000	0
Regional workshop/TOT on core set of indicators	100,000	region	1	50,000	50,000
In-country workshops on country assessments	50,000	countries	0	5,000	0
In-country training on core set of indicators	50,000	countries	5	5,000	25,000
Regional workshops on production of basic agricultural and rural statistics	200,000	region	1	100,000	100,000
Translation of guidelines and training material regional languages	25,000	languages	2	5,000	10,000
3. Output C. Sector Strategic Plans for Agricultural and Rural Statistics (SSPARS) as a component of the National Strategies for Development of Statistics (NSDS) provide the national framework for implementation	**300,000**				**15,000**
Regional training on preparation of country action plans	100,000	region	0	50,000	0
Regional training on skills gap analysis	100,000	region	1	10,000	10,000
In-country training on preparation of action plans	50,000	countries	0	5,000	0
In-country training on skills gap analysis	50,000	countries	1	5,000	5,000
4. Output D. Improved political support by decision-makers for agricultural and rural statistics in terms of provision of budget and resources	**400,000**				**37,500**
In-country training of data producers on advocacy tools (half cost allocated to Output F)	200,000	countries	5	2,500	12,500
In-country training of data users on statistical literacy	200,000	countries	5	5,000	25,000
5. Output E. Strengthened legal and coordination mechanisms and frameworks for agricultural and rural statistics	**200,000**				**25,000**
In-country advocacy seminars	200,000	countries	5	5,000	25,000
6. Output F. Enhanced capacity of NSS to advocate for adequate resources for developing and compiling country-specific minimum set of agricultural and rural statistics	**400,000**				**37,500**
In-country training of data producers on advocacy tools (half cost allocated to Output D)	200,000	countries	5	2,500	12,500
In-country training of data producers on communication strategies	200,000	countries	5	5,000	25,000

7. Output G. Increased ability of NSS to access and use ICT for production and dissemination of minimum set of agricultural and rural statistics	**580,000**				**250,000**
Regional training on ICT	300,000	regions	3	50,000	150,000
In-country training of data producers and data users	200,000	countries	12	5,000	60,000
Infrastructure support	80,000	regions	1	40,000	40,000
8. Output H. Improved competencies of NSS to produce and disseminate minimum set of agricultural and rural statistics in accordance with international standards & good practices through training and technical assistance	**1,070,000**				**350,000**
Regional workshops on various topics	500,000	regions	1	50,000	50,000
General in-country training of data producers and data users	300,000	countries	12	12,500	150,000
Infrastructure support	70,000	regions	1	50,000	50,000
Scholarship to support staff of regional training centers	200,000	scholarships	4	25,000	100,000
9. Output I. Strengthened capacity of national and regional training institutions to develop and deliver relevant, efficient, and effective training in agricultural and rural statistics	**1,440,000**				**565,000**
Development of core skills framework (CSF) and standardized needs assessment (TNA)	40,000		2	10,000	20,000
Regional training on CSF and standardized training needs assessment	100,000	regions	1	50,000	50,000
In-country training on application of CSF and standardized needs assessment	100,000	countries	5	10,000	50,000
Training of trainers on various topics covering outputs B-H, J-K	400,000		2	50,000	100,000
Center certification/ accreditation on training in agricultural statistics	100,000	centers	5	10,000	50,000
Curriculum adaptation and development for regional specificities	75,000	curriculum	5	10,000	50,000
Development and adaptation of global training materials to regional training centers requirements	50,000	handbooks	1	20,000	20,000
Translation of guidelines and training material regional languages	125,000	countries	5	5,000	25,000
Training: twinning between training centers, study tours (facilitation of exchanges of experience between countries)	50,000	regions	2	25,000	50,000
Development of pilot graduate programme on agriculture statistics	100,000	regions	2	10,000	20,000
Scholarships for enrolment in pilot graduate programme on agri-statistics	300,000	scholarships	10	13,000	130,000
10. Output J. Improved capacity of countries to adopt cost effective and reliable methods for producing minimum set of agricultural and rural statistics	**250,000**				**100,000**
Preparation of handbooks	250,000	handbooks	10	10,000	100,000

11. Output K. Increased capacity to use statistics for policy making, operation of efficient markets, and foster sound investments	**600,000**				**100,000**
In-country training on policy orientation and innovative presentations	600,000	countries	4	25,000	100,000
Training Budget Total	**6,577,500**				**2,199,830**

(a) In deriving the Priority Budget, both number of units and unit costs may have changed since the Target Budget was drafted.

Asia Pacific Overall Budget (in US$)		
	Target Budget	**Priority Budget**
1. Regional	3,190,040	3,080,040
2. Research	Budgeted under the global action plan and ADB (Annex G)	
3. Technical Assistance	12,012,520	7,625,685
4. Training	6,577,500	2,199,830
5. Admin and Support costs (7%)	-	903,389
Grand Total (US$)	**21,780,060**	**13,808,944**

Annex

J. Stakeholders' Analysis Matrix

Stakeholder[1]	Interest	Perception of problem	Resources	Mandate
National Statistical Offices	Cost-effective and reliable data collection, analysis and dissemination; staff that can develop and/or adopt methods	Coordination with MoA, Inadequate government support, outdated skills, data gaps, quality of data	Technical skills, data collection infrastructure, Statistical experience	Data production, tabulation and dissemination
Ministry of Agriculture (as data producer)[2]	Cost-effective and reliable data collection, analysis and dissemination; staff that can develop and/or adopt methods	Coordination with NSO, Inadequate government support, inadequate skills, data gaps, quality of data	Knowledge of the subject matter, proximity to policy makers and beneficiaries	Data producer, data analysis, policy monitoring
Research and Training Institutes	What research/training that are in demand?	Coordination with data producers	Research and analytical skills	Research and training
Policy Makers	Precise estimation of current situation for effective planning and M&E (based on adequate and reliable information)	Perception of development programmes, Hindrance in planning and monitoring process	Advocacy of adequate resources	Formulating effective plans for ensuring food security and sustainable natural resource management
Governments	Monitoring and evaluation (performance of the sector and the statistical system)	Low visibility of the sector Difficult to show progress and evidence of impact	Allocation of resources Enabling environment	Ensure the availability of quality data
Inter-governmental bodies	Enabling environment, availability of quality data, harmonization, comparability, sharing resources, networking	Difficult to track progress, Lack of standards and measures. Lack of political will	High-level political dialogue & commitment	Support for infrastructure and institutions to flow quality data, Regional cooperation
Farmers/ Agri-businesses	Timely and reliable data on: supply and demand, prices, stocks, trade, forecast (early warning) for business decisions	Lack of reliable data, Poor access to data, Poor ability to interpreted data, Lack of confidentiality	Advocacy on data collection, Fund sourcing	Respond to data collectors (duty)
Development partners	Timely and reliable data & statistics for planning, assessing assistance requirements and monitoring performance. Standardization.	Lack of reliable, timely data & comparability	Financial resources, technical expertise, facilitating sharing of expertise	Supporting environment for the production and dissemination of quality & reliable agricultural data

1: Three types of stakeholders are identified, namely producers (e.g. NSO, MoA), users (e.g. policy makers, research institutions), and enablers (government, inter-governmental bodies, development partners) .

2: The Ministry of Agriculture also plays the role of policy maker.

Annex

K. Logical Framework (2013-2017)

	PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS/MITIGATION MEASURES
	Indicator	**Baseline**	**Target**		
IMPACT A. Evidence-based policies for poverty reduction, increased food security and sustainable natural resources management	Number of policies that are formulated based on data-intensive analysis	Country assessments		Country reports	**Risks:** Lack of demand for evidence-based policy making Lack of national support for and interest in providing statistics for agricultural and rural development **Mitigation measures:** Advocacy
OUTCOME Significant increase in the availability and quality of agricultural and rural statistics, produced by a sustainable agricultural statistical system with appropriate institutional, human and financial capacity	Number of agricultural and rural statistics that are regularly compiled and disseminated	Country assessments		Baseline report and project progress report	**Risks:** Lack of political support for improvement of agricultural and rural statistics **Mitigation measures:** Advocacy
OUTPUTS					
A. Regional governance structure in place.	The Regional Steering Committee formed Regional Coordinating Office (RCO) in the FAO RAP staffed with resources			RSC membership Staff contracts	**Risks:** 1. Key RCO staff not identified on time 2. Funds no received timely **Mitigations measures:** 1. Posts advertised widely 2. Close communication with GSC

	PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS/MITIGATION MEASURES
	Indicator	**Baseline**	**Target**		
B. Country-specific minimum set of agricultural and rural statistics identified by each country using the minimum set of core data contained in the Global Strategy as the basis	Number of NSS that have subscribed to country-specific minimum set of agricultural and rural statistics	Country assessments		Baseline report and project progress report	**Risks:** Lack of consensus among stakeholders **Mitigations measures:** 1. Country consultation processes 2. Facilitating dialogs between producers and users 3. Continued advocacy
C. Sector Strategic Plans for Agricultural and Rural Statistics (SSPARS) as a component of the National Strategies for the Development of Statistics (NSDS) provide the national framework for implementation	Number of countries that have national statistics development plans with agricultural and rural statistics	Country assessments		Baseline report and project progress report	**Risks:** 1.Not functioning national coordination structures **Mitigation measures:** 1. Technical assistance to countries in developing national statistics development plans 2. Ensuring effective coordination through inclusion of the coordinating structures in the development plans
D. Improved political support by decision-makers for agricultural and rural statistics in terms of provision of budget and resources	Government budget allocation for agricultural and rural statistics			Country reports	**Risk** 1. Even with advocacy efforts, political support still inadequate 2. Country national budgets are not sufficient **Mitigation measures** None
E. Strengthened legal and coordination mechanisms and frameworks for agricultural and rural statistics	Number of countries with functioning coordination structures for agricultural statistics	Country assessments		Baseline report and project progress report	**Risks:** Lack of national political interest in improving and sustaining agricultural statistics **Mitigations measures:** Continued advocacy, regional and national
F. Enhanced capacity of NSS to advocate for adequate resources for developing and compiling country-specific minimum set of agricultural and rural statistics	Resources for agricultural and rural statistics Number of countries that have adequate resources for the development and compilation of country-specific minimum set of agricultural and rural statistics	Country assessments		Baseline report and project progress report	**Risks:** 1. Investment in agricultural statistics is not forthcoming from governments and international donors2. Political will of stakeholders to deliver on the plan is inadequate **Mitigations measures:** Intense advocacy including through

	PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS/MITIGATION MEASURES
	Indicator	**Baseline**	**Target**		
					improving statistical literacy among government officials and building business cases to highlight the benefits of improving agricultural and rural statistics
G. Increased ability of NSS to access and use ICT for production and dissemination of minimum set of agricultural and rural statistics	Number of countries with CountryStat or similar dissemination platform Number of NSS staff trained in ICT for production of statistics	Country assessments		Baseline report and project progress report	
H. Improved competencies of NSS to produce and disseminate minimum set of agricultural and rural statistics in accordance with international standards and good practices through training and technical assistance	Number of NSS staff with improved competencies to produce and disseminate statistics and analysis	Country assessments		Baseline report and project progress report	**Risks:** 1. Suitable qualified experts cannot be found 2. Trainees are not selected on the basis of needs **Mitigation measures:** 1. Perform in-depth assessments to identify existing and emerging training needs 2. Contribute to and make use global roster of experts 3. Provide guidelines and training for human resources managers and intensive supervision to ensure appropriate selection and deployment of trainees as well as career opportunities
I. Strengthened capacity of national and regional training institutions to develop and deliver relevant, efficient, and effective training in agriculture and rural statistics	Number of regional and national training institutions with strengthened capacity Number of new regional programmes/courses	Country assessments		Baseline report and project progress report	
J. Improved capacity of countries to adopt cost effective and reliable methods for producing minimum set of agricultural and rural statistics	Number of countries that have adopted cost effective and reliable methods, guidelines, standards and frameworks	Country assessments		Baseline report and project progress report	**Risks:** 1. Research does not respond to the needs of the region 2. Research is not adequately financed. 3. Technical difficulties in applying new methods and techniques **Mitigations measures:** 1. Consultation with target groups at country
J1. Improved ability of countries to adopt methodological research results, guidelines and frameworks for agricultural and rural statistics	Number of NSS staff that have acquired skills for adopting methods, guidelines and frameworks.	TBD (in-depth country assessment results to be		Progress reports	

	PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS/MITIGATION MEASURES
	Indicator	**Baseline**	**Target**		
		used for establishing baseline)			level in developing new methods and techniques to ensure relevance 2. Appropriate resource mobilization
J2. Better access of countries to methodological research results, guidelines and frameworks for agricultural and rural statistics	Number of countries that are able to utilize methodological research results, guidelines and frameworks	TBD (in-depth country assessment results to be used for establishing baseline)		Progress reports	3. Involve and properly coordinate best research teams 4. Facilitate access to guidelines and handbooks and methodologies and incorporate them in training curricula and programmes
K. Increased capacity of countries in the use of agricultural statistics to meet priority needs for policy making, operation of efficient markets and foster sound investment	Number of countries that use agricultural and rural statistics for monitoring their development plans. Number of users trained in using ARS	TBD (In-depth country assessments to establish baseline)		Progress reports	**Risks:** 1. Inadequate political interest and support in using agricultural statistics 2. Statistical outputs may not reflect the priority needs of users 3. Statistical outputs are available but may not be easily accessible in both content and format **Mitigation measures:** 1. Continued intense advocacy 2. Closely involve user groups in planning and producing statistical outputs, including in the definition of the core set 3. Implement effective communication in disseminating statistical outputs

Annex

L. ESCAP members and associate members by subregion

East and North-East Asia (ENEA)
China
Democratic People's Republic of Korea (DPR Korea)
Japan
Mongolia
Republic of Korea
Hong Kong, China
Macao, China

South-East Asia (SEA)
Brunei Darussalam
Cambodia
Indonesia
Lao People's Democratic Republic (Lao PDR)
Malaysia
Myanmar
The Philippines
Singapore
Thailand
Timor-Leste
Viet Nam

South and South-West Asia (SSWA)
Afghanistan
Bangladesh
Bhutan
India
The Islamic Republic of Iran
Maldives
Nepal
Pakistan
Sri Lanka
Turkey

North and Central Asia (NCA)
Armenia
Azerbaijan
Georgia
Kazakhstan
Kyrgyzstan
the Russian Federation
Tajikistan
Turkmenistan
Uzbekistan

Pacific
Australia
Fiji
Kiribati
Marshall Islands
Micronesia, Federated States of
New Zealand
Nauru
Palau
Papua New Guinea
Samoa
Solomon Islands
Tonga
Tuvalu
Vanuatu
American Samoa
Cook Islands
French Polynesia
Guam
New Caledonia
Niue
Northern Mariana Islands

ESCAP member States located outside the Asia-Pacific region
France
Netherlands
United Kingdom
United States of America