



**Asia-Pacific
Economic Cooperation**

2011/ATCWG/WKSP/010

Improving Agricultural and Rural Statistics for Food Security

Submitted by: ADB



**Workshop to Assess and Improve
Agricultural Data Collection and
Dissemination by APEC Member
Economies
Manila, Philippines
27-28 October 2011**

Improving Agricultural and Rural Statistics for Food Security

Presentation by

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Statistics for Dynamic Policy Making



Order of Presentation

- About ADB
- Agricultural development and ADB's strategic agendas
- Measurement Issues in agricultural and rural development
- ADB's technical assistance on agricultural and rural statistics


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About Asian Development Bank

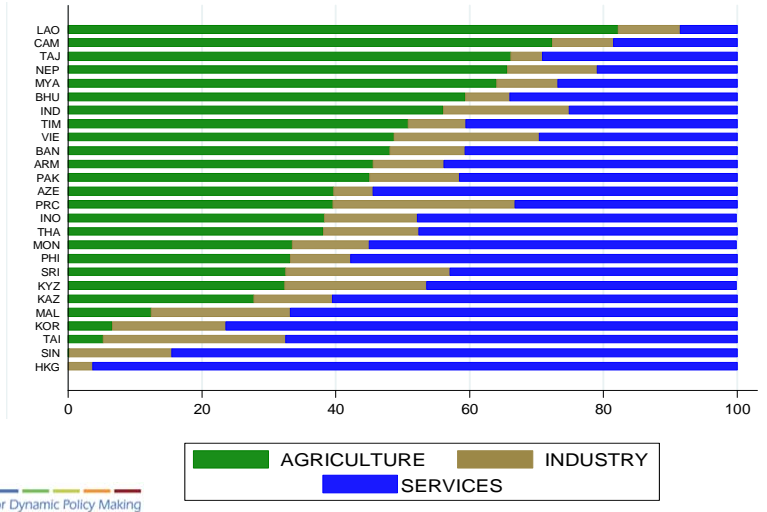
- Aims for an Asia and Pacific that is free of poverty.
- Owned by 48 regional members and 19 non-regional members.
- Headquarters in Manila with 29 sub-regional and special offices around the world.
- Main products: loans, technical assistance, grants, advice and knowledge.

ADB Strategic Agendas

- Inclusive Growth
- Environmentally Sustainable Growth
- Regional Integration

Agriculture is the main source of livelihood for the employed population in Asia.

Percent Share of Agriculture to Total Employment

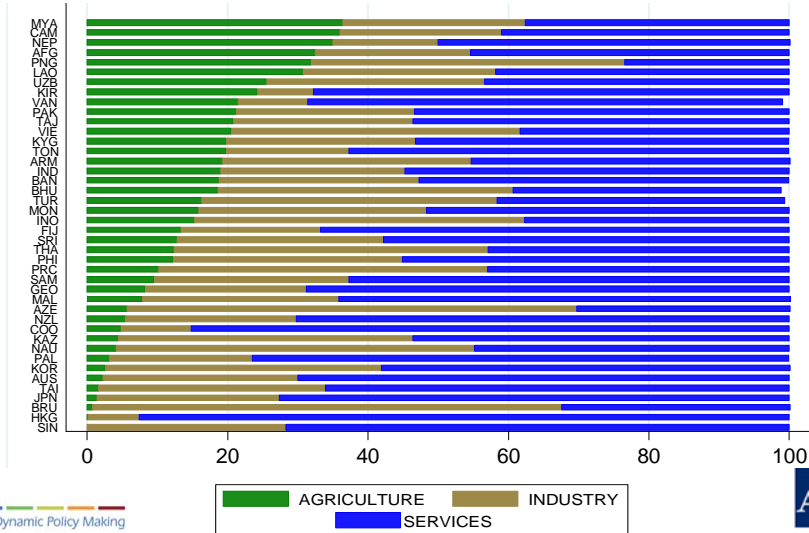


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Agriculture contributes significantly to total output of Asia.

Percent Share of Agriculture to GDP

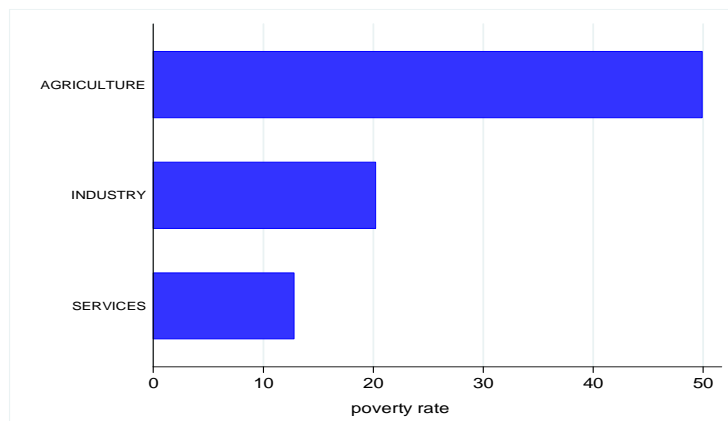


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Poverty incidence is higher for those in the agriculture sector.

Poverty Rate among the Employed (Philippines)

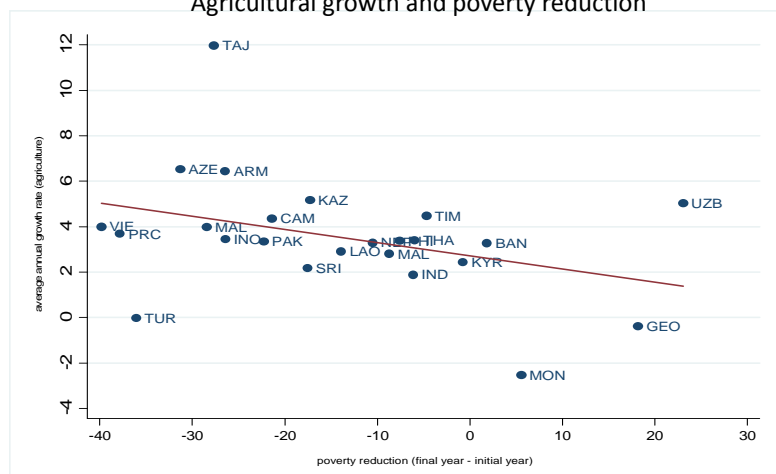


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Poverty rates of economies that have higher agriculture sector growth declined faster.

Agricultural growth and poverty reduction



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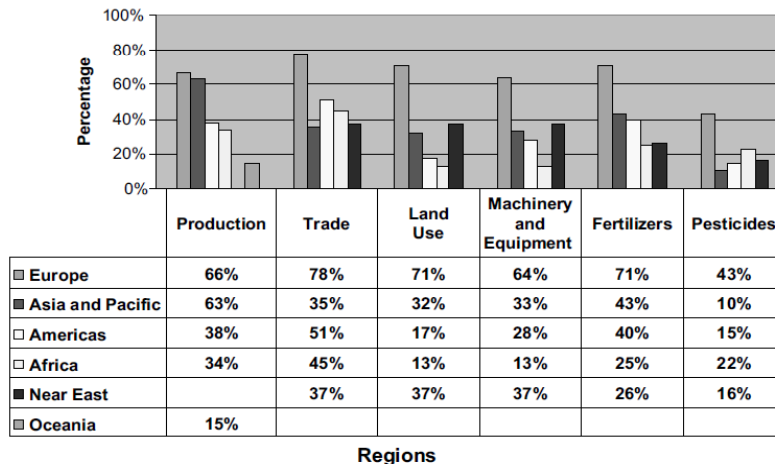


Timely and reliable statistics are needed for crafting and monitoring policies.

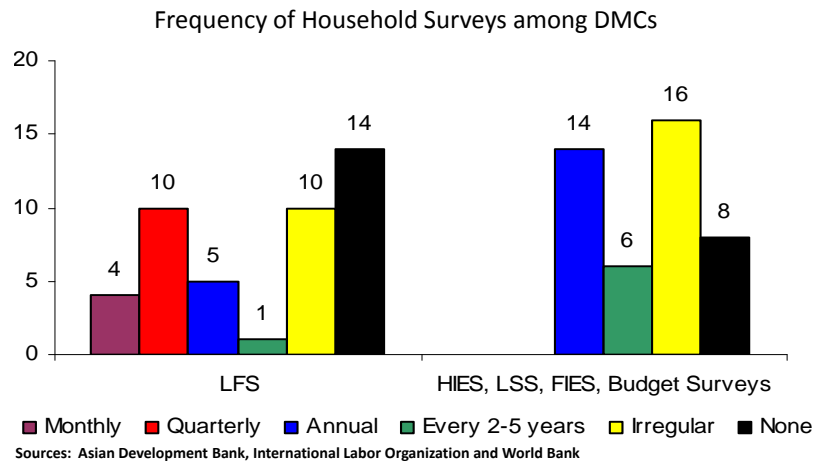
- Better data support systems lead to better design of projects and programs and consequently, better development outcomes.
 - For example, inaccurate estimation of the staple food production can lead to inappropriate policies
- Need for summary statistics as well as household level data that can be analyzed
 - For example for profiling of the food-insecure and identification of vulnerable areas

But not all economies in Asia and the Pacific have agricultural and rural statistics.

Countries Response Rate to FAO questionnaires for 2007 data



In fact, not all economies in Asia conduct household surveys



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Not many economies use household survey data to collect agricultural data.

- Only 16 economies in Asia have nationally representative surveys on crop production.
 - 11 are APEC economies
- Only 20 economies in Asia have done a census of agriculture.
 - 4 are APEC economies

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Administrative data collection systems are more prone to measurement bias.

- Government field personnel would assess crop production by employing eye or judgment estimates.
- Summary statistics are sent to the next level of the hierarchy until they reach the national level.
- Data collectors have also other vested interests and may not have objectivity in reporting.
- No household level data for analysis.

Farm sizes have declined, making it more difficult to conduct probability sample surveys.

Size of Land holding in Asia (ha)

Country	Initial	Latest	Time Period
Bangladesh	1.4	0.6	1977-1996
China	0.56	0.4	1980-1999
India	1.67	1.06	1981-2002
Nepal	1.11	0.8	1961-2001
Pakistan	5.3	3.1	1971-2000
Philippines	3.6	2	1971-1991
Samoa	6	3.6	1989-
Sri Lanka	1.2	0.5	1976-
Thailand	4.2	3.71	1995-1999

If only that we can use the regularly conducted household surveys to collect agricultural data too.

Distribution of Sampled Households by Main Source of Income (Philippines)

Main Source of Income	2003		2006		2009	
	Sample Size	% to Total Sample	Sample Size	% to Total Sample	Sample Size	% to Total Sample
Crop Farming and Gardening	6,920	16.44	5,822	15.13	5,377	14.00
Wage/Salary from Agri. Activity	3,401	8.08	3,004	7.81	3,053	7.95
Fishing	1,602	3.81	1,348	3.50	1,170	3.05
Livestock and Poultry Raising	305	0.72	234	0.61	199	0.52
Forestry and Hunting	130	0.31	138	0.36	148	0.39
Non-Agriculture	29,736	70.64	27,937	72.60	28,453	74.10
Total	42,094	100	38,483	100	38,400	100

Source: FIES 2003, 2006 and 2009

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If only we can use the regularly conducted household surveys to collect agricultural data too.

Distribution of Sampled Households by Main Source of Income (India)

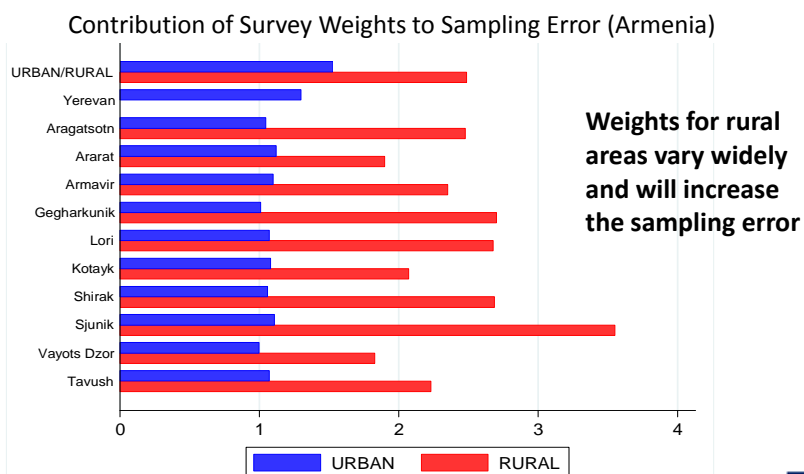
Location	Main Source of Income	Sample Size	% to Total Sample Size
Rural	Self-employed in agriculture	15,292	30.42
	Agricultural labor	4,790	9.53
	Self-employed in non-agriculture	4,586	9.12
	Other Labor	2,181	4.34
	Others	4,814	9.58
Urban	Regular wage/salary earning	7,791	15.50
	Self-employed	7,011	13.95
	Casual labor	1,647	3.28
	Others	2,160	4.30

Source: NSS, 64th round

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However, increasing the sample sizes in the rural areas have some design issues.



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ADB Technical Assistance on Agricultural Statistics

- TA 3451 NEP: Strengthening the National Statistical System
- TA 2861 NEP: Supporting Agriculture Statistics Development
- TA 949 PHI: Agricultural Statistics Improvement Project
- Improving Agricultural and Rural Statistics for Food Security (Under Processing)

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Improving Agricultural and Rural Statistics for Food Security

- ADB Policy and Advisory Regional Technical Assistance that is being processed
- Aims to increase the use of agricultural and rural statistics for policy making to enhance food security.

Key Activities

- Development of the regional action plan and economy plans for improving agricultural and rural statistics
- Conduct of methodological studies
- Training programs and workshop to support economies in developing action plans

Methodological studies

Integration of data collection for agricultural and rural statistics in the system of household surveys

- Streamlining HIES and LFS - agricultural and rural statistics
- Adapting Radimer-Cornell instrument - hunger and household food insecurity
- Designing the master sample to ensure tolerable sampling error
- Developing a framework for estimating crop and livestock production using HIES

Methodological studies

Alternative methods for estimating crop production

- Adapting remote sensing and crop-cutting results for estimating crop production
- Using indirect methods (e.g., balance food worksheet, etc) for estimating crop production

Methodological studies

Improving administrative reporting systems

- Incorporating data validation process and data analytical techniques
- Use of crop-cutting in validating estimates

Implementation Arrangements

- Will be implemented on Nov 2011 to May 2013
- ADB financing will be \$500,000
- Close collaboration with ESCAP, FAO and the members of the Steering Group for Agricultural and Rural Statistics.
- Memorandum of agreements selected with national statistical systems that will undertake methodological research.



For More Information
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