

Module 2

The policy development cycle: an informed process

Regional Workshop on Statistical Literacy:
Increasing Effective Use of Agricultural and Rural Statistics

13-17 July 2015 Daejeon, Republic of Korea



Module outline

1. Presentation on core concepts
 - * Evidence-based policy making
 - * Policy development cycle
 - * Roles
 - * Skills for using statistics in policy
2. Indonesia – role of statistics in agricultural and rural development policy making
3. Small group activities x 3



What is evidence-based policy making?



What is evidence-based policy?

Scientific approach

Well-informed

Analysis

Research

All available evidence

Based on facts

Responds to real needs

Efficient and effective



Why do statistics matter?

“Why do statistics matter? In simple terms, they are the evidence on which policies are built. They help to identify needs, set goals and monitor progress.

Without good statistics, the development process is blind: policymakers cannot learn from their mistakes and the public cannot hold them accountable”.

World Bank (2000)

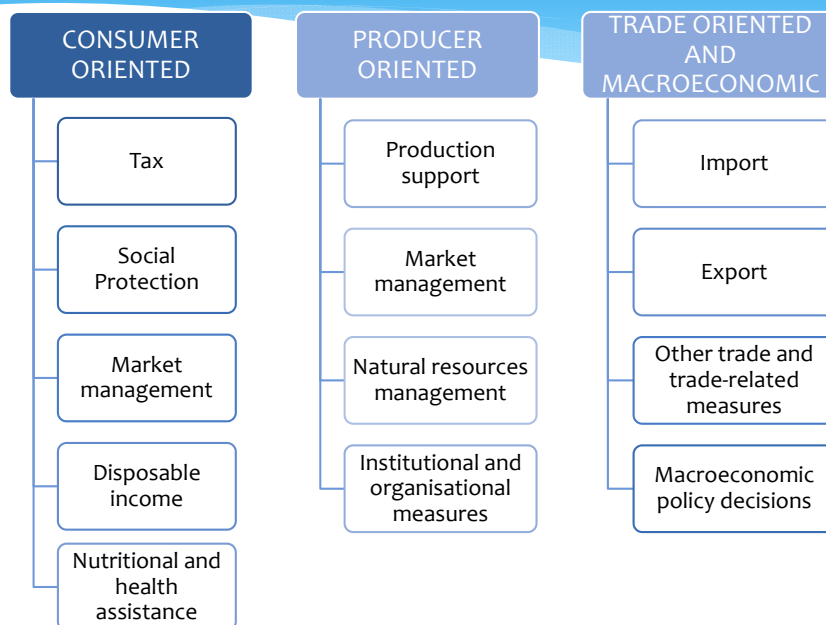


Evidence-based policy making

- * Not new
- * Combination of areas of expertise
- * Emerging issues
 - * Post-2015 development agenda
 - * New measurable goals and targets
 - * Increased emphasis on disaggregation
 - * Changes in how statistics are produced
 - * Transforming official statistics
 - * New data sources (e.g. big data)



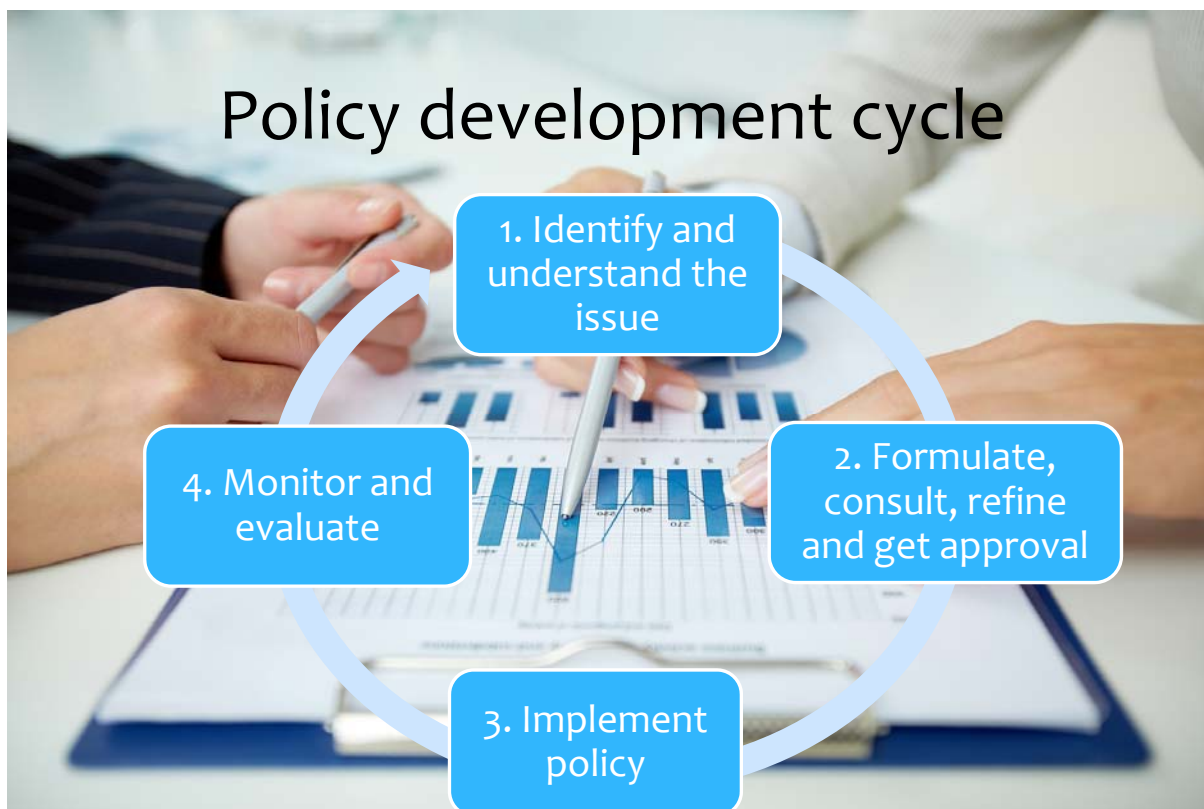
Food and Agriculture Policy Classification



Source: FAO (2015), Food and Agriculture Policy Classification (www.fao.org/fileadmin/templates/fapda/docs/FAPDA_policy_classification_April2015.pdf).



Policy development cycle



Reference: SIAP (2015), Regional Course on Communication and Advocacy for Agricultural and Rural Statistics. 20-24 April 2015, Beijing, China.

Case study: Timor-Leste National Seed Policy

Reducing **HUNGER** in Timor-Leste

63% of all East-Timorese households are engaged in crop production with subsistence agriculture being the main source of food for many rural households (2010 Census)

But their yields are some of the LOWEST in South-East Asia

And malnutrition is high
50% of under-five children (almost 100,000 children) are stunted and 38% of them are underweight

Helping farmers grow more food
The Ministry of Agriculture and Fisheries is researching improved varieties of staple food crops

maize - rice - peanut - sweet potato - cassava - bean

12 varieties have been released so far with **24-131% yield advantages**

Sole, Red Merlot, Red and Savan 5 maize - Hakrasa rice - Rhasan peanut - Hakras 1, 2 & 3 sweet potato - Ai-hala 1, 2 & 4 cassava



Timor-Leste: Evolution of the value of total agriculture production and food production

	Value (\$Million of 2004-2005 US\$)				Annual growth rate (%)		
	1997	2002	2007	2012	1997-2002	2002-2007	2007-2012
Total agricultural production	111	121	122	136	1.74	0.16	-2.5
Food production	100	106	107	121	1.17	0.19	3.05

Source: FAOSTAT, FAO of the UN, accessed on February 4, 2015. <http://faostat.fao.org/data/countries>

Timor-Leste: Index of per capita production

	Index (2004-2005 = 100)				Annual growth rate (%)		
	1997	2002	2007	2012	1997-2002	2002-2007	2007-2012
Food production per capita	110	112	97	100	0.26	-2.01	2.34
Agricultural production per capita	106	111	97	102	0.93	-2.66	1.91
Agricultural production per agricultural worker	107	110	95	98	1.98	-4.24	0.93

Source: FAOSTAT, FAO of the UN, accessed on February 4, 2015. <http://faostat.fao.org/data/countries>

Timor-Leste: Evolution of production quantities for selected commodities

	[1000 t]				Annual growth rate (%)		
	1996	2001	2006	2011	1996-2001	2001-2006	2006-2011
Cassava	100	123	174	148	-	7.16	-3.19
Chickpeas	2.26	2.68	2.94	2.89	3.47	1.17	-1.5
Maize	22.16	28.49	28.67	32.96	6.11	-0.18	2.94
Coconut grove	107	69.02	116	30.07	-4.4	11.62	-23.76
Paddy rice	52.61	53.89	65.41	66.93	0.47	0.07	12.16
Coffee	10.99	14.13	14.88	8.52	5.15	-0.16	-8.96
Cocoa beans	0.08	0.11	0.16	0.16	4.58	12.36	-2.15
Wheat	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

Source: FAOSTAT, FAO of the UN, accessed on February 4, 2015. <http://faostat.fao.org/data/countries>



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Timor-Leste Food and Nutrition Survey 2013



and 38% of them are underweight





The 15 seed council representatives along with Seeds of Life observers at the council's first meeting

© Kate Bevitt/Seeds of Life

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La'o Hamutuk second submission

**to the Ministry of Agriculture and Fisheries and "Seeds of Life" program
regarding Timor-Leste Draft National Seed Policy¹**

6 March 2013

Introduction

La'o Hamutuk would like to thank Timor-Leste's Ministry of Agriculture and Fisheries (MAF) and Seeds of Life (SoL) for giving us the opportunity to participate as an observer in the meetings of the national seed policy working group and to share our view on Timor-Leste Draft Seed Policy. This effort of openness and collaboration differs from the previous lack of transparency surrounding the elaboration of the draft Seed Law, which La'o Hamutuk has tried to obtain for several years in vain.

However, as we mentioned in our first submission, we regret the top-down approach followed by MAF-SoL during the elaboration process of Timor-Leste Seed Policy. MAF-SoL asked an international consultant to write general drafts supposed to include input from the working group members - none of them being farmers - and then to socialize the last draft during consultation

Kabas Fatin (Aileu)

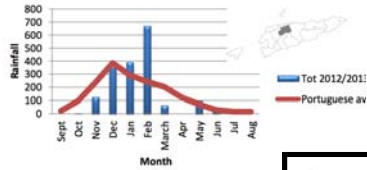


Figure 3. Rainfall (mm) at Kabas Fatin, Aileu, 2012-2013.

Table 34. Farmers preferences for different sweet potato varieties, 2012-2013

Variety	% farmers liking the variety			Mean
	Betano wet season	Betano dry season	Loes wet season	
Hohrae 2	83	64	65	71
L mutin	80	61	65	71
		52	68	65
		61	88	63
		68	53	63
		39	71	50
		36	82	44
		43	41	42
		50	35	39
		50	18	31
		18	100	27
		19	115	100
		81		
		45		

**Annual Research Report
2013**

**Seeds of Life
Fini ba Moris**

Table 80. Yield and yield components

Variety	Yield (kg/ha)	Plants / m ²	
RWV 1348	243	2.1	
Mwirasi	181	3.0	
Umubano	164	2.2	
Local Maubisse	159	1.6	
Gasilidia	142	1.8	
RWV 2409	134	3.1	
Yol X	123	2.8	
Lokál Urulefa	109	1.7	
MAC 28	103	3.2	
Decelaya	85	2.3	
Average	144	2.4	
F Prov	<.001	0.011	0.08
L.S.D	82.23	1.04	ns
%CV	48.1	37.4	75.2

There was a correlation between yield and number of pods per plant and seeds per pod (Figure 24).

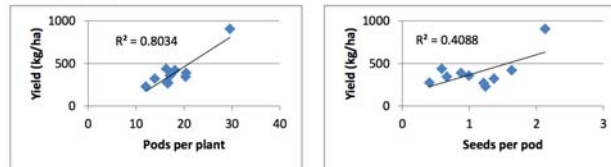
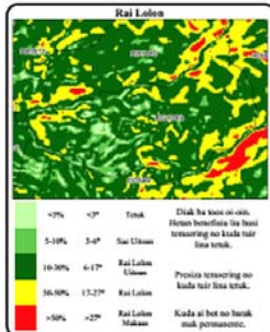
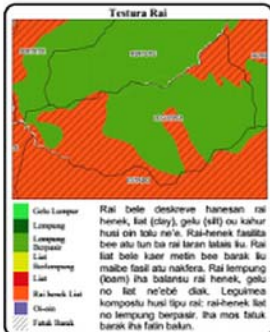
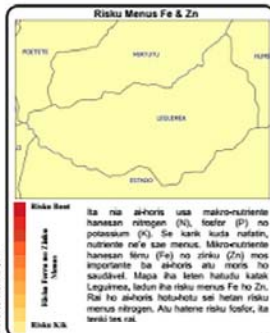
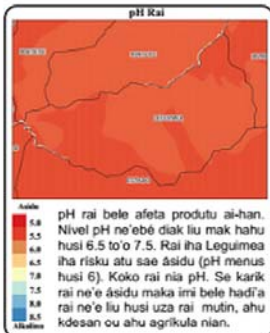


Figure 24. Correlation between yield, pods per plant and seeds per pod, 2013

To'os no Rai

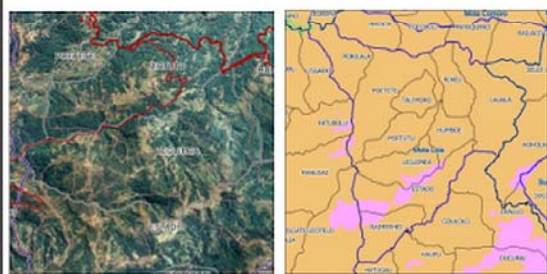
Diak lu ita komprende ba nia rai balinira ba halo planu aktividade iha Leguimea. Rai hotu-hotu sae diak lu husi al-tahan dodok iha rai ne'e bele aumeta rai nia nutrasun, kaer bee, hadia testura rai no previne erosun.



Klima no Rai : Leguimea, Ermera

Leguimea iha foho loten iha sub-distritu Ermera nia laran. Ida ne'e hanesan rejaun ho altitude aas iha zona agro-ekolojiku 3. Nia foho kuaze loten makaas ne'e bele fo risku makaas ba rai husi no erosun. Udan ne'e bele monu iha Leguimea bele tama ba mota Loes. Tenki konsidera impaktu husi aktividade ba suco sira seluk iha kraik. Tenki tau matan ba ai-laran no lori toos kuidadu iha rai loten hodi bele uza ita nia rai nafatin.

Populasyon	Agricultura (% Usum)		
Uma	180	Hano	1%
Feto	551	Batar	51%
Manc	506	Astefina	67%
Uma Total	1057	Modo	17%
Uma (ha)	853.0	Maso	61%
Uma (ha) (Mediu Rural Uma/ha 0.5)		Fahi	62%
		Bibi	11%
		Karas	18%



The benefits are many



more food

Farming families benefit from higher crop yields



more biodiversity

The varieties add to the hundreds of varieties present in Timor-Leste



more food security

Research shows that adopters have a reduced risk of experiencing food shortage

And now a

National Seed System for Released Varieties

is being established to give farmers ongoing access to quality seed of these varieties



Seeds of Life
Fini ba Moris



Australian
Aid 

Produced by Seeds of Life, May 2014

Who is involved policy development?

- * Roles
 - * Decision makers in government
 - * Messengers
 - * Influencers
 - * more?

Skills for using statistics in policy development

Define data needs

- Articulate issue
- Identify population
- Specify time frame

Assess data quality

- Fit for purpose?
- Locate explanatory notes
- Assess quality dimensions
- Strengths & limitations
- Identify gaps

Analyze, interpret and evaluate

- Formulate questions
- Analyze data
- Interpret results

Find the data

- What data exist?
- Ask data producers
- Gather available data
- Negotiate to get access

Understand statistical concepts

- Research techniques
- Central location and spread
- Able to read tables and graphs

Communicate statistical findings

- Writing about data
- Presentation in tables, graphs & maps

Sources: Australian Bureau of Statistics (2010), "[A guide for using statistics for evidence based policy](#)" and UNECE (2012), "[Making Data Meaningful Part 4: A guide to improving statistical literacy](#)".



Gather available data

The screenshot shows the Statistics Canada website interface. At the top, there is a navigation bar with "Information for...", "Browse by subject", "Browse by key resource", and "Help". Below this, the "Agriculture" section is highlighted. The main content area includes a "Statistics by subject" sidebar with categories like "Feeds", "What's new?", and "Other subtopics". The central content features a "Featured products" section with "Land use and environmental practices" and a "Resources" section with a list of links such as "Latest news releases in The Daily", "Summary tables", and "Census tables". A "See also" section at the bottom suggests "Environmental quality". The footer includes "Terms and conditions", "Transparency", and a date modified: "2015-07-05".



Kinds of statistical information

- * Statistical reports and publications
 - * Summary tables and graphs
 - * More detailed thematic analysis
- * Raw data set / unit record files
- * Definitions and methods (i.e. metadata)
- * International statistical databases
- * Research papers
- * Policy briefs
- * Others?



Assess quality dimensions



www.nss.gov.au/dataquality/

The screenshot shows the 'Data Quality Online' web application. At the top, there are logos for the Australian Bureau of Statistics and the National Statistical Service. The main heading is 'Data Quality Online'. Below this is a navigation menu with links: Home, About, Data Quality Statement Tool, Resources, FAQs, Help, and Contact us. A secondary menu lists quality dimensions: Introduction, Basics, Institutional Environment, Relevance, Timeliness, Accuracy, Coherence, Interpretability, Accessibility, Contact Details, and Output. The main content area contains three text input fields with labels: 'About whom, or what, was the data collected?', 'What levels of geography are the data available for?', and 'What key data items are available?'. Each field has a small information icon to its right. The bottom right corner of the page features a small 'p' logo.

Assess quality dimensions



Source: Australian Bureau of Statistics Data Quality Framework (www.nss.gov.au/dataquality/aboutqualityframework.jsp)



Communicate statistical findings

AGRICULTURE EMITS MORE GREENHOUSE GASES THAN COMBINED

Food by the Numbers: Feeding Our Hungry Planet

National Geographic 8,195

Published on Oct 16, 2014

By 2050, the world's population will likely increase 35 percent. But is growing more food the only option—or even the best? National Geographic investigates the challenges and solutions to feeding everyone on our planet, based on an eight-month series in National Geographic magazine.

FEED THE FUTURE
The U.S. Government's World Hunger and Food Security Initiative

COUNTRY PROFILE	POPULATION	POVERTY	GDP	UNDERNOURISHED	STUNTING
Nepal	29 MILLION	55 PERCENT	38 PERCENT	29 PERCENT	41 PERCENT

CONTEXT STRATEGY RESOURCES

“Two out of every three Nepalese suffer from food insecurity each year.”

Nepal is a severely food deficit country struggling to recover from a 10-year civil war. With a GDP per capita of \$470, Nepal is the poorest country in South Asia and the 13th poorest country in the world. Nearly 80 percent of the population works in the agriculture sector, accounting for 38 percent of the GDP. However, recent declines in agricultural production have depressed rural economies and increased widespread hunger and urban migration.

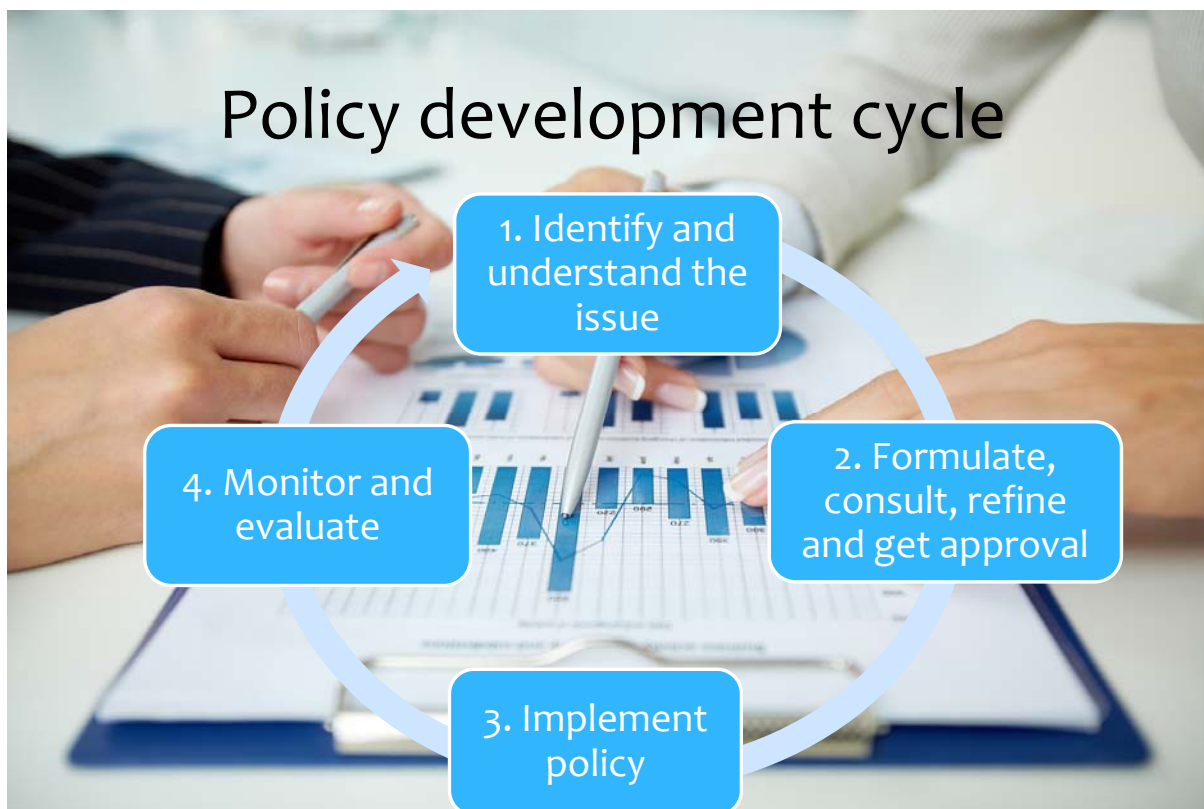
Two out of every three Nepalese suffer from food insecurity each year.

Source: National Geographic

Source: www.feedthefuture.gov/country/nepal



Policy development cycle



Reference: SIAP (2015), Regional Course on Communication and Advocacy for Agricultural and Rural Statistics, 20-24 April 2015, Beijing, China.



Session 2.1

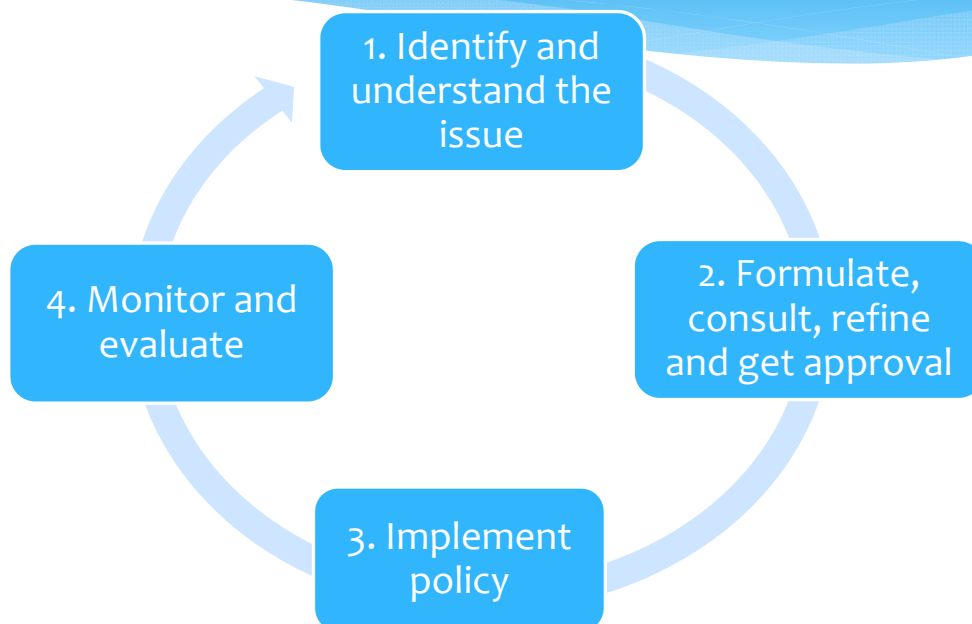
Presentation by Indonesia role of statistics in agricultural policy

Session 2.2

Fitting the use of statistics in the policy development cycle



Philippine Example: Philippine Development Plan 2011-2016



Philippine Example: Philippine Development Plan 2011-2016

- * Serves as a guide in formulating policies and implementing development programs for the next six years.
- * One of the 10 Chapters: (pages 101-120 of PH handout)
 - * Competitive and Sustainable Agriculture and Fisheries Sector

Philippine Example: Philippine Development Plan 2011-2016

1. Identify and understand the issue (pages 106-107 of PH handout)
 - * Declining productivity and competitiveness
 - * Elusive rice self-sufficiency
 - * Increase in food commodities prices

Philippine Example: Philippine Development Plan 2011-2016

2. Formulate, consult, refine and get approval (page 113 of PH handout)

- * Goal 1: Food Security Improved and Incomes Increased

- * Strategy 1.1 Raise productivity and incomes of agriculture and fishery-based households and enterprises



Philippine Example: Philippine Development Plan 2011-2016

3. Implement policy (pages 113-115 of PH handout)

- * Strategy 1.1 Raise productivity and incomes of agriculture and fishery-based households and enterprises

- * Diversify production
 - * Complete the delineation of municipal waters for better fishery resource management
 - * Improve rural infrastructure and facilities
 - * Develop markets and sharpen regulatory competence
 - * Strengthen Research, Development and Extension (RD&E)
 - * Improve the sector's credit access
 - * Secure food availability and affordability



Philippine Example: Philippine Development Plan 2011-2016

4. Monitor and evaluate

* Philippine Development Plan Results Matrices

- * Depicts the results chain from the subsector/intermediate outcomes to the sector outcome, and lastly to the societal goal
- * Provides an indicator framework to the statements of results under the PDP, which would allow for subsequent assessment and performance measures



Small group discussion

Handout

Session 2.2: Fitting the use of statistics in the policy development cycle

Using the example policy you have been given, discuss the role of statistics, and the kind of statistical information needed at each stage of the policy development cycle.

Stage	Role of statistics	Kind of statistical information needed
1. Identify and understand the issue		
2. Formulate, consult, refine and get approval		
3. Implement policy		

Using the example policy you have been given, discuss **the role of statistics**, and **the kind of statistical information needed** at each stage of the policy development cycle.



Session 2.3

Identifying key players and users of statistics involved in each stage of the policy development cycle



Small group discussion

Handout

Session 2.3: Who drives policy development?

Identifying key players and users of statistics involved in each stage of the policy development cycle

1. Brainstorm a list of key players and users of statistics involved in each stage. These are organizations or types of people who play a direct role in that stage of policy development.
2. Review the list you have come up with and identify which of them are the **decision makers in government**
3. Which of them are **key messengers and influencers**?

Stage	Key players and users of statistics
1. Identify and understand the issue	
2. Formulate, consult, refine and get approval	
3. Implement policy	

1. **Brainstorm a list** of key players and users of statistics involved in each stage. These are organizations or types of people who play a direct role in that stage of policy development.
2. Review the list you have come up with and identify which of them are the **decision makers in government**
3. Which of them are **key messengers and influencers**?

Session 2.4

Statistical competency requirements for groups of decision makers and key messengers/influencers



Personas: a tool to help understand target groups





Persona: Ministry of Agriculture Senior manager

Matthew Johnson

Manager, Natural Resources Conservation

Ministry of Agriculture



Activity 2 – Role playing

Elements of a Persona

- a) Persona Group (e.g. Senior management)
- b) Fictional name
- c) Job titles and major responsibilities
- d) Demographics such as age, education
- e) The goals and tasks they are trying to complete related to using statistics in policy
- f) Their experience and skills in using statistics
- g) A quote that sums up what matters most to the persona as it relates to using statistics in policy
- h) Casual pictures representing that user group

Sources: Adapted from the Usability.gov page on Personas
(www.usability.gov/how-to-and-tools/methods/personas.html)

