



**40<sup>th</sup> Anniversary Celebration of SIAP**  
Ninth Management Seminar for Heads of the National  
Statistical Offices in Asia and the Pacific  
31 August – 2 September 2010, Tokyo, Japan

## Core Skills Framework (CSF)



# Conventional approach to training

- Institute decided on what is appropriate for developing statistical skills in NSO
- Focused on the delivery of pre-decided training contents by SIAP faculty
- Get the feedback
- Make changes as appropriate afterwards



# Influencing factors for a change

- Results based management practices adopted by ESCAP
- Results oriented training requirements by JICA; co-organizers of TMA based training
- Need to observe an Impact and measure at least 'outcome' rather than 'outputs'
- Ensure sustainability of capacity building



# Introduction of CSF

- **SIAP (Primary reason)**: to identify what skills SIAP should provide training on.
- **NSS (Other uses)**: to identify which additional skills are needed by NSS staff to improve their organizational performance.
- **STAFF**: to manage their own professional development and identify what skills they need to improve their job performance
- Descriptions in CSF can be used to decide on the skill requirement:
  - for each Level for career path developments and
  - for each subject area for training content/curriculum designing



# Core Skills Framework

- Core skills framework was used to identify the skills required by NSO's; grouped into 3 main types
  - Core statistical skills
  - Specialist statistical skills
  - Statistical management skills
  
- Skills levels:
  - Level 1: Clerical Support
  - Level 2: Core skill –level 2 – (Compiler)
  - Level 3: Core skill –level 3 – (Analyst)
  - Level 4: Core skill –level 2 – (Senior Analyst)
  - Level 5: Core skill –level 2 – (Supervisory)



## Three separate frameworks

In line with three focus areas of SIAP, and General division of work in NSO, following Subject divisions identified:

- Social statistics
- Macro Economics
- ICT

CSF is not static and needs updating



# Focus areas of SIAP

- a. Supporting monitoring and evaluation of national development strategies with respects to MDGs and sustainable development;
- b. Integrated economic statistics, including 2008 SNA; and
- c. Strengthening national capacity in application of information management.
- Immerging needs as reflected by the need survey
- ESCAP-SD initiatives



# Skill matrix – attachment -3: for an illustration of how skills are related to each Level

**Skill Matrix notations for ICT statisticians.**

**Attachment -3**

Levels				Topics	/	Relevance			
(L2	L3	L4	L5)						
				1.1		1	1	1	1
				1.2		1	1	1	1
				1.3		1	1	1	1
				1.4	*	1	1	1	1
				1.5	=	1	1	1	1
				1.6		1	1	1	1
				2.1		0	0	#	1
				2.2		0	0	0	1
				2.3		0	0	0	1
				2.4		0	0	0	1
				2.5		0	0	#	1
				3.1		0	1	1	1
				3.2		0	1	1	1
				3.3		0	1	1	1

$$L = T' R$$

# - indicates some relevance

eg:

1. L(2) is the sum of skills Required at level-2.
2. Description for Level 2 is defined under each topic in the CSF (eg:1.3 in level-2)  
Sum of the descriptions for relevant topics will form the basis for training contents/curriculum for identified area.



## **Skill/Topic List in the CSF:**

- 1.1 General statistical knowledge
- 1.2 Analytical skill and knowledge
- 1.3 Need and feasibility phase of the statistical process
- 1.4 Develop and design phase of the statistical process
- 1.5 Collect and process phases of the statistical process
- 1.6 Analysis and disseminate phase of the statistical process
- 2.1 Delivering agreed outputs
- 2.2 Team leadership
- 2.3 Management of risk
- 2.4 Build productive relationships
- 2.5 Contribute to the management of NSO
- 3.1 Key Indicators [MDGs and sustainable development]
- 3.2 Projections
- 3.3 Research methods and data modeling

## **Three subject divisions:**

- 1. Social statistician
- 2. Macroeconomic statistician
- 3. ICT statistician

Note: Similar skill matrices are available for Social statistician and Macro economic statistician

# Simple illustration – Time series

## AN ILLUSTRATION- (Topic 1.2 – Analytical skill and knowledge) Attachment-2

Direction from the CSF:

### Level 2:

Able to undertake data manipulation, queries and exploratory data analysis using appropriate tools.

### Level 3:

+ Can explain why the statistics are produced, who uses them, and how to use them

### Level 4:

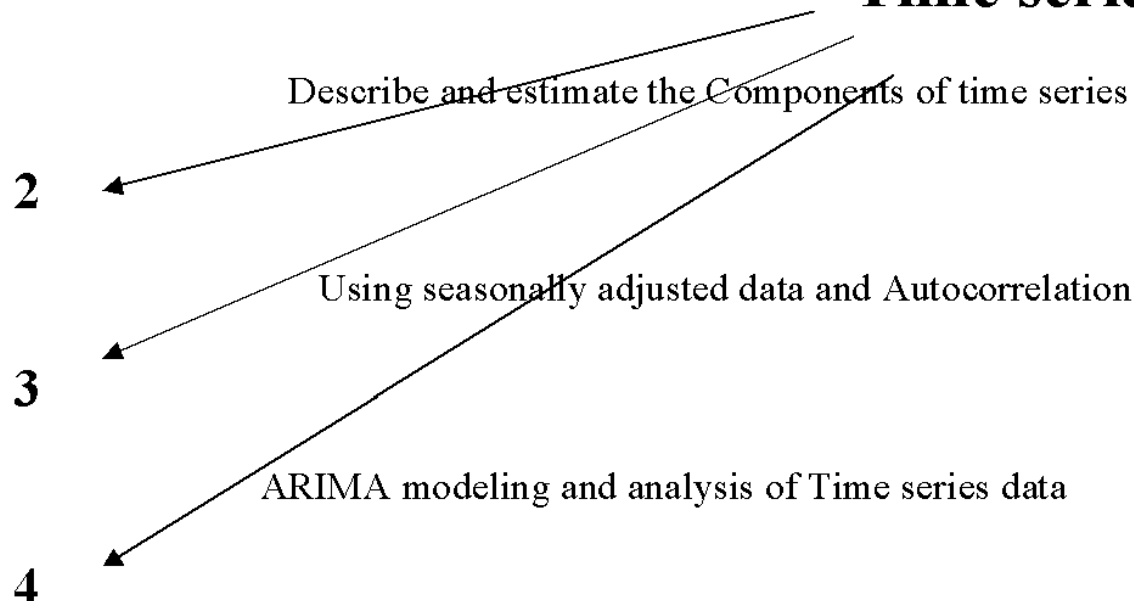
Proficient in advance analytical tools able to undertake advanced querying

CSF LEVEL

Contents

TOPIC

## Time series



# Another topic – Regression

CSF LEVEL	Contents	TOPIC
2	Introducing Simple linear regression	<b>Regression</b>
3	Estimations and uses of multiple regressions	
4	Analysis using Logistic and dummy models	

# Example of usage of CSF for ICT course

- Expected learning outcome: Trained participants are able to improve the quality and efficiency of services delivered by government statistical offices through the use of ICT.
- Indicators:
  - Test results
  - Self-evaluation
  - Project work and action plan presentation
  - Information from follow up surveys on action plan implementation



# Course design

- Participants: Level 3 and 4 as defined in the CSF for ICT
- Topic boundaries specified:
  - for core skills - topics 1.4, 1.5, and 1.6 of CSF
  - For special skills – topics 3.1
- Course design: Course consisted of 177 sessions of 75 minutes
  - 100 were in the form of lectures, hands on exercises with software, course work and exercises
  - field trip to a local statistical office and
  - group visits to the statistics bureau of Japan and Japanese industry
  - Project work and an action plan of activities to be implemented upon return to their home countries.

## Some issues in implementation of CSF:

- Trainer requirements/perspectives are not frequently met by nominating agencies
  - Language proficiency not sufficient
  - Heterogeneity of participants is very high
  - Sustainability of capacities developed is challenging due to staff mobility
- Some action to mitigate effects of above needed by SIAP and NSOs!



# Tasks ahead

- Fine tuning of the framework is necessary for proper adaptation
  - Need coherence across subject divisions (fix codes)
  - Skill coding systems may be appropriate –SSCS?
    - Statistical Skill Classification System...
  - Encompassing all skill requirements of NSO/NSS
- Advantages of CSF
  - Official statisticians have a common language to speak of skills (like MDGs for social development)
- A challenge
  - Adopting from developed to developing country perspective

# CONCLUSION

- SIAP considers that measuring training outcomes will require extra work initially
  - Eventually it will start to produce positive impacts on improving participants job performance, and
  - Thus improvements in the NSS
  - The approach based on CSF shall lead to institutionalizing training efforts and ensure good knowledge management
  - Demonstrate multiplier effect of SIAP's training efforts.
- (Your views, inputs and comments are welcome.)

Thank you!

