

**ICP Task Force on  
Country Operational Guidelines  
and Procedures**

**A Manual for the Compilation of Sub-national  
Purchasing Power Parities**

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## Need for Sub-National PPPs (SN-PPPs)

- Only recently the role and significance of SN-PPPs is coming into prominence
  1. UNSC and FOC made a number of recommendations
  2. The ICP Global Office formulated a Research Agenda:

### ***“Agenda Item 4. Estimation of sub-national PPPs using CPI information***

*Using the CPI to produce sub-national PPPs **contributes** both to the sustainability of the ICP in countries and **to closer alignment of the ICP and CPI processes**. The following **needs to be done**:*

- *Analyze Asian and African experience with sub-national PPPs and **provide guidelines on the use of the CPI to compute within country sub-national PPPs**.*
- *Analyze temporal consistency of CPI and sub-national and **poverty PPPs**.*
- ***Expand work on sub-national and poverty PPPs to more countries.***

## The manual: Justification and objectives

- ❑ **Encouraging signs** on the possibility to **extend to more countries** the compilation of the SN-PPPs
- ❑ **It is time to start** to embark other countries on their compilation
  - This MANUAL is designed to **provide guidance** to those countries
- 1. The **SN-PPPs must follow** the framework and principles of ICP
- 2. However, **compilation of SN-PPPs** raise its **own challenges** in terms of the scope, survey framework and collection of the necessary data
- 3. The **territorial organization of the NSOs** and of the CPI and expenditures surveys **affect the SN-PPPs' compilation**
- ❑ **MAIN OBJECTIVE** of this manual is to **highlight the practical issues** that arise in setting up a program for SN-PPPs including establishing their scope and applications
  - This MANUAL has a symbiotic relationship with the **Manual on CPI-ICP integration**

## Some challenges, issues and recommendations to the Global Office

- To have success, it is important to **convince** the:
  1. **NSOs** and the national organizations involved in the CPI construction that the **SN-PPPs** and national PPPs computation **are a natural extension of current CPI activities**
  2. National **POLICY MAKERS** of the importance to estimates SN-PPPs

### *Issue*

- ❑ **Different organization** and approaches of NSOs in the compilation of the **CPI** at territorial level (need information on this: **an ICP Survey?**)

### Recommendations

- Give **not only prescriptions** to be followed, but **also possible alternatives**
- **Starting point**: works actually done by NSOs for CPI Compilation

## Organizational's Recommendations

1. It is recommended that countries **compile** SN-PPPs on an **ANNUAL BASIS**.
2. **ORGANIZATIONAL STRUCTURE**: the manual suggests an indicative organization to integrate activities of CPI with SN-PPPs and ICP PPPs.

Only three topics: Survey Framework, Product list(s) compilation, Expenditure data

## Survey Framework and organization for Price collection

➤ The **OBJECTIVE** is the **estimation of PPPs for each BH at territorial level**

☐ **NEEDS**:

1. **Efficient** survey framework for building up an “ideal” micro data base to obtain **reliable estimates** PPPs for each BH at territorial level
2. Theoretical and practical framework based on a **multistage stratified sampling design**, *by product, area location and type of outlet* (considering the variability of the prices' level) to obtain **reliable estimates** of the price index **in each stratum**

## Survey Framework and organization for Price collection (cont.)

### *Issue and challenges*

- **NSOs** collect price data, to compile CPIs, by **conducting some separate surveys**
- Need to **know the surveys organization** of NSOs (**conduct a Survey?**)
- ❑ **How to do the estimation** of PPPs for each survey at the stratum level? And **how to combine** the different estimations?

### *Challenges (for the future): ALTERNATIVE SOURCES OF DATA*

- **SCANNER DATA** from retail trade chains of the modern distribution
  - **INTERNET AND WEB DATA**: Ad hoc collected data for certain groups of products by means of electronic devices and a dedicated software and by data collected on the web also through web scraping techniques
- ❑ How many **NSOs are using these sources of data for CPIs** or are planning to do it  
**(conduct a Survey?)**

# Product List(s) compilation

## MAIN ISSUES

➤ **Exploit the commonalities** in the CPI lists from the different sub-national areas and the ICP (SPD) product lists

➤ **Comparability vs representativity**

Comparability is **assured** by SPD-ICP list, but the product specifications of this list frequently are **not representative of the products mostly purchased in the different areas**, which satisfied the same need (also if of different brands, etc.),

❑ Many problems should be solved if the **two international classifications become comparable at the five-digit level**

## PROCESS THAT COULD BE FOLLOWED

1. **starting point** is to closely examine the CPI **product lists from different sub-national areas** and identify **possible overlaps** in such lists with the SPD-ICP list
2. First do **estimation of PPPs** at area level for each **BH for which there is a complete overlapping** of the product specifications
3. Then to **pay much attention** as possible to other products and services for which there are **no overlapping items**

## Product List(s) compilation (cont.)

### ☐ POSSIBLE ALTERNATIVES

i. The best is to try to **do further surveys**, collecting more information also on the characteristics of these products to achieve product comparability

ii. It may be necessary to **define products more loosely** to be able to find products that meet specifications and are purchased in all the areas

There are **two different ways to loosen the specifications** of the product definitions.



First, it possible to **reduce the number of characteristics** used in comparing products and services

Second, to **compute clusters of products and services** with a common (overlapping) numbers of characteristics that satisfy the same needs

iii. **Last possibility**: to achieve the comparability of the products by **using only the product list and specifications of COICOP Classification**. In this case for the non overlapping items, the NSOs could compute the PPPs for the BH in each area, without strict reference to the SPD-ICP list.

# Expenditure data and weights

## *Issue*

- Usually it is **difficult** for the NSOs to have information on the **expenditures share of each BH at sub national level** because:
  - ✓ Not in many countries the National Accounts are computed at sub-national level and **not for all the disaggregation of expenditures**
  - ✓ The Household Expenditure Surveys (**HESs**) usually have a **sample size that is not large enough**, in order to obtain accurate estimates of the expenditure by classes of expenditure at local level.

## *Recommendations*

- Need to know the **methods of the estimation of the weights** and their level of disaggregation followed by the different countries for the compilation of CPI (is it necessary an **ICP survey**?)
- Need to Improve the estimation of detailed expenditure share by using indirect indicators (as population, etc.) or by using the Small Area Estimation methods (SAE). Try to **do some experiments**?

## Experiments to be implemented (in some countries)

Computation of :

### 1. *Spatial sub-national price indexes for Housing Rents*

by using data coming from:

- Archives on purchases and rents recorded by the revenue and tax agencies and by private national agencies
- Rents and house information collected through the HES

### 2. *Sub-national poor specific PPPs*

by using information on:

- the price likely payed by poor (analysis of price distributions)
- the main outlets where poor do the purchase (through HES)
- the expenditure share of poor households (through HES).

**THANKS!**