ICP Task Force on
Country Operational Guidelines
and Procedures

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

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October 29, 2019
World Bank, Washington, DC
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 (throught HES)
   - the expenditure share of poor households (throught HES).

THANKS!