# International Comparison Program

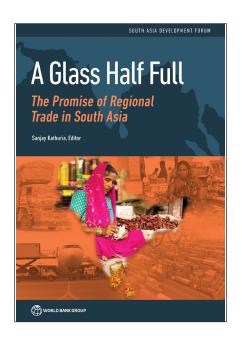


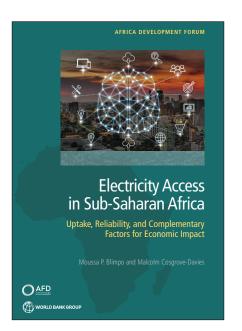
### **Annual Report**

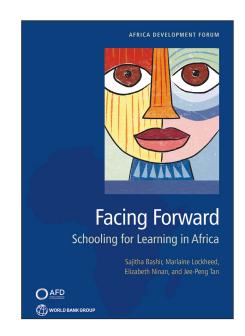




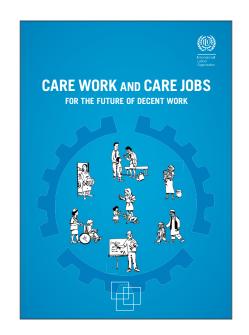
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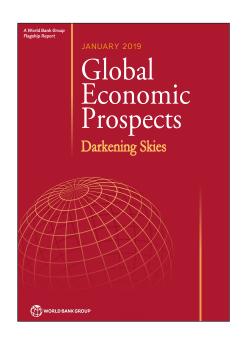


















## International Comparison Program Annual Report

May 2019

#### Table of Contents

| An active year for the International Comparison Program                  | 4               |
|--|-----------------|
| Governance and coordination  | 5               |
| United Nations Statistical Commission                                    | 5               |
| ICP Governing Board  | 6               |
| Technical Advisory Group   | 7               |
| Inter-Agency Coordination Group  | 8               |
| Implementation of the ICP 2017 cycle                                     | 9               |
| Country participation  | 9               |
| Overall timetable  | 11              |
| Data submission and global validation                                    | 12              |
| Capacity building activities   | 13              |
| Communication and dissemination of ICP 2017 cycle results                | 21              |
| Preparations for the ICP 2020 cycle                                      | 21              |
| Research activities  | 22              |
| Research agenda  | 22              |
| Task Force on PPP Compilation and Computation                            | 23              |
| Task Force on Housing  | 24              |
| Task Force on Country Operational Guidelines and Procedures              | 24              |
| Task Force on PPPs and Poverty Measurement                               | 24              |
| Advocacy and knowledge   | 25              |
| 50 <sup>th</sup> Anniversary of the International Comparison Program     | 25              |
| Fifty Years of the International Comparison Program: Achievements and Mo | ving Forward 25 |
| African Symposium  | 26              |
| UN-ESCWA Statistical Committee side event                                | 26              |
| World Data Forum   | 27              |
| World Bank Data Day  | 27              |

| PPP eLearning course                       | <i>28</i> |
|--|-----------|
| ICP Highlights newsletter                  | 29        |
| ICP website                                | 30        |
| ICP blog series                            | 30        |
| Uses of Purchasing Power Parities          | 31        |
| Overview                                   | 31        |
| Sustainable Development Goals              | <i>32</i> |
| Institutional uses                         | 34        |
| Other recent highlights                    | 34        |
| Funding the ICP 2017 cycle                 | 36        |
| Risks and mitigation measures              | 36        |
| Country participation risks                | <i>36</i> |
| Timeliness risks                           | <i>37</i> |
| Quality, comparability, and openness risks | <i>37</i> |
| Financial and sustainability risks         | <i>38</i> |
| Conclusion                                 | 38        |
| Annex: Country experiences                 | 39        |
| Georgia                                    | 39        |
| India                                      | 40        |
| Saudi Arabia                               | 41        |
| South Africa                               | 41        |
| Viet Nam                                   | 42        |

#### An active year for the International Comparison Program

50 years of the ICP

In 2018, the International Comparison Program (ICP) celebrated its "Golden Jubilee". In the fifty years since its inception, the ICP has evolved into the largest statistical partnership in the world. At its forty-seventh session in March 2016, the United Nations Statistical Commission (UNSC) instituted the ICP as a permanent element of the global statistical program, conducted more frequently starting from the 2017 cycle.

Quality assurance efforts underway

This report covers ICP activities in the twelve months up to end-April 2019. Over the year, work has continued apace on the collection and validation of data, and on the calculation and review of Purchasing Power Parities (PPPs) for benchmark year 2017 and the PPP timeseries bridging benchmark years 2011 and 2017.

Results anticipated in 2020

At the same time, preparations are underway for the release of these results in the second quarter of 2020 through **modern dissemination channels**, while ensuring transparency in methods and approaches, providing guidelines for use, and targeting wide outreach.

Knowledge shaping the future of the ICP

Work on the 13 topics identified by the ICP **Research Agenda** has been taken forward by active Task Forces and Task Teams, under the guidance of the Technical Advisory Group, and outreach and knowledge activities have accelerated through events, **eLearning**, blogs and analyses.

Growing use of PPPs

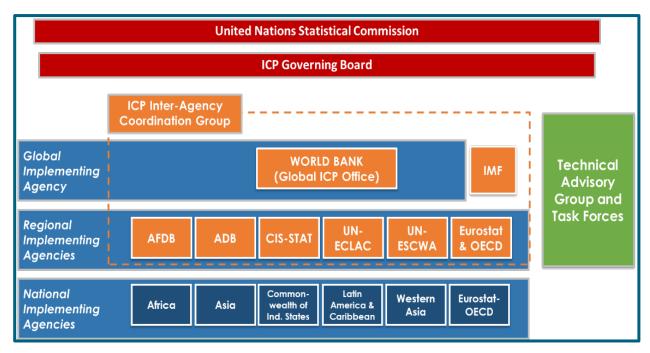
The **use** of PPP data is increasing with numerous references in the media, in academic reports and research papers, and in analyses by multilateral organizations and the development community. These cover a breadth of topics — the size of the economy, poverty and inequality, energy, the environment, health, education, labor, trade and competitiveness amongst others.

176 participating economies

Lastly, the **global partnership** of international and regional agencies, around 176 economies, and eminent economic advisors, grows stronger with common goals, shared experiences and capacity building efforts, while the ICP governance bodies continue to monitor, guide and oversee the program.

#### Governance and coordination

The governance structure of the ICP provides an overall framework for coordinating international, regional, and national efforts to produce reliable PPP estimates and related measures of real expenditures. The framework consists of the United Nations Statistical Commission, a Governing Board, an Inter-Agency Coordination Group, a Technical Advisory Group and its Task Forces, a Global Implementing Agency, Regional Implementing Agencies, and National Implementing Agencies, each of which has distinct roles and responsibilities.



Over the last year, the ICP Governance Bodies have met to discuss the progress of the program, and direct future work undertaken by implementing agencies.

#### **United Nations Statistical Commission**

The United Nations Statistical Commission (UNSC) is the ultimate stakeholder of the ICP, deciding the frequency and modality of the program. At its fiftieth session in March 2019 in New York, the Commission welcomed the annual report on the ICP and commended the work carried out to date.

"The United Nations Statistical Commission:

- notes the importance of the ICP;
- encourages full and timely participation from all relevant agencies; and
- stresses the urgent need for implementing agencies to incorporate the program into their regular statistical work."

At the session, countries hailed the support of their Regional Implementing Agencies and the ICP Global Office and emphasized:

- The integration of the ICP into regular national statistical programs is paramount, and opportunities should be taken to maximize synergies with national consumer price index programs.
- Technical assistance and statistical capacity building are essential to ensure ICP practitioners have the skillsets necessary to produce robust results.
- Sustainable funding is essential for the continuation of the program.
- Efforts should be made at all levels to ensure the timely release of the 2017 cycle results and initiation of the 2020 cycle.
- More advocacy for both the program and the use made of PPPs would assist countries in securing the ICP as an ongoing exercise.

#### **ICP Governing Board**

The Governing Board's role is to set the policies that govern the production of regional and global PPPs; approve the methodology; conduct outreach to policy-makers to ensure the inclusion of the ICP in regular national statistical programs; and help with fund-raising efforts.

The Governing Board met for its <u>third and fourth meetings</u> over the past twelve months: it convened in Dubai on October 25, 2018, taking advantage of members' attendance at the UN's World Data Forum, and again in New York on March 3, 2019, prior to the UNSC meeting. The Board:

- Commended the vast efforts undertaken at national, regional and global levels to accelerate the implementation of program activities and urged countries and multilateral agencies to meet the ICP 2017 cycle deadlines, prepare for the 2020 cycle, and incorporate the ICP into their regular work programs and budgets.
- Emphasized the importance of producing ICP results in a sustainable manner, increasing synergies
  with regular national statistical programs, building national statistical capacity, and optimizing the ICP
  survey approach.
- Stressed the importance of assessing the quality of the 2017 cycle results, PPP timeseries and the revised ICP 2011 results, and releasing all these data simultaneously.
- Reviewed a comprehensive <u>communication and dissemination strategy</u> to support the 2017 cycle results release in early 2020 and to ensure wide understanding and use of ICP data by a global audience.
- Recognized that liaising with major PPP users prior to the release of the 2017 results was crucial.
- Agreed to continue ICP advocacy efforts with agencies and donors, and to promote the program's increased openness and transparency.

The fifth meeting of the Board is scheduled for November 2019.



The UAE Federal Competitiveness and Statistics Authority hosted a reception for Governing Board members to celebrate the 50<sup>th</sup> anniversary of the ICP in October 2018. At the reception, Dr. Abdalla Lootah, Director-General of the FCSA, noted that the ICP has come a long way since 1968 and has evolved into the largest statistical partnership in the world. He added that the UAE believes the ICP results are crucial to the Sustainable Development Goals as well as the UAE National Agenda, national statistics development, and competitiveness analysis.

#### **Technical Advisory Group**

The Technical Advisory Group (TAG) ensures the methodological soundness and overall quality of the PPP estimates; assures the transparency of the PPP estimation process; and supports the establishment of a permanent and more frequent ICP. A number of Task Forces and Task Teams have been created under the auspices of the TAG to take forward the ICP Research Agenda.

The second meeting of the ICP TAG took place in Washington D.C. on May 23, 2018. The Group:

- Emphasized the importance of quality assurance and comparability of ICP results over cycles, and welcomed such efforts as estimating the inter-regional linking factors based on capital-city prices.
- Encouraged efforts that showcase the breadth of ICP and PPP uses, at both national and international levels and for different themes, and the development of online tools to allow users to create ad-hoc country and subject matter comparisons based on both published and unpublished ICP data and results.
- Stressed the need for formal country guidelines for estimation methods, practices and uses of subnational PPPs. The Task Force on "Country Operational Guidelines and Procedures" is taking this forward.

- Noted the need to keep assessing the most reliable methodology for estimating housing, health and education PPPs, topics dedicated to the Task Force on "Housing" and the upcoming Task Force on "Non-Market Services".
- Highlighted the need to monitor the availability of potential alternative data sources for intra- and inter-country PPP estimation. The Task Force on "New Data Sources" will take this forward in the coming years.

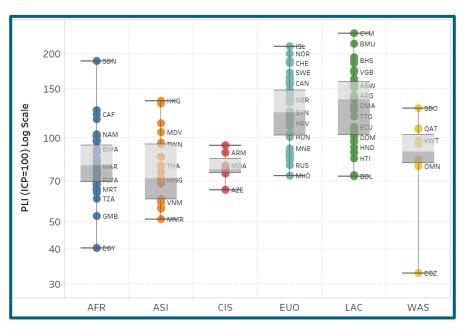
The third meeting of the TAG is scheduled for May 2019.

#### **Inter-Agency Coordination Group**

The Inter-Agency Coordination Group (IACG) is the coordinating body that collaborates on establishing timetables and work plans; develops common standards, methods, and protocols; and agrees on operational materials.

The <u>sixth and seventh meetings of the IACG</u> were respectively held from September 24 to 26, 2018, and from April 15 to 18, 2019 in Washington, D.C. At these meetings, the Group:

- Discussed the progress made globally and regionally against the agreed timetable, and managed the associated risks.
- Conducted quality assurance of data for household consumption, private education, housing, government compensation, machinery and equipment, construction and civil engineering, national accounts and auxiliary data, and metadata.
- Discussed preliminary global household consumption results for 2017 and consistency with 2011 results.
- Identified necessary actions at national, regional and global level to adhere to the timetable for the release of the 2017 cycle results.
- Discussed preparations for the 2020 cycle, including operational planning and survey schedules.
- Reviewed the communication and dissemination strategy for the ICP 2017 cycle results.

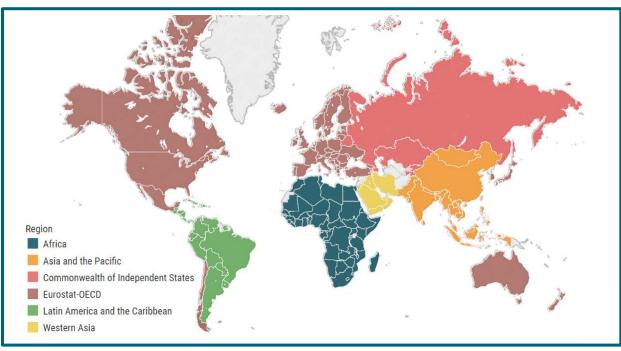


As part of its review of price data, the IACG examined price level indices by region at its September 2018 meeting.

#### Implementation of the ICP 2017 cycle

#### Country participation

As of April 2019, 176 economies are taking part in the 2017 cycle, under the auspices of six regional programs. The African Development Bank oversees the work of the 50 economies in that region, with AFRISTAT coordinating 30 of those, and COMESA the remaining 20. Three economies within this region are also participating in the Western Asia exercise (Egypt, Arab Republic; Morocco; and Sudan). The Asian Development Bank coordinates the work of its 22 participating economies, while the Interstate Statistical Committee of the Commonwealth of Independent States oversees its eight economies. The Economic Commission for Latin America and the Caribbean oversees the work of its 36 economies, with support from CARICOM for the 23 Caribbean islands. The United Nations Economic and Social Commission for Western Asia coordinates the 12 economies in that region. Eurostat and OECD provide results for their joint total of 49 economies and assist with the special participation of Georgia and Ukraine. Iran is participating through a special exercise. To encourage and prepare for future participation, several countries also benefitted through ICP capacity building efforts. These include Eritrea, Libya, Somalia, South Sudan, Turkmenistan, Uzbekistan and Yemen.



As of April 2019, 176 economies across the globe are participating in the 2017 cycle. Sint Maarten in the Caribbean was a late, but welcome addition.

#### **Table 1: Participating economies**

#### Africa: 50 economies

Algeria; Angola; Benin; Botswana; Burkina Faso; Burundi; Cameroon; Cape Verde; Central African Republic; Chad; Comoros; Congo, Rep.; Congo, Dem. Rep.; Côte d'Ivoire; Djibouti; Egypt, Arab Rep.\*; Equatorial Guinea; Ethiopia; Gabon; Gambia, The; Ghana; Guinea; Guinea-Bissau; Kenya; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritania; Mauritius; Morocco\*; Mozambique; Namibia; Niger; Nigeria; Rwanda; São Tomé and Principe; Senegal; Seychelles; Sierra Leone; South Africa; Sudan\*; Swaziland; Tanzania; Togo; Tunisia; Uganda; Zambia; Zimbabwe.

#### Asia: 22 economies

Bangladesh; Bhutan; Brunei Darussalam; Cambodia; China; Fiji; Hong Kong; India; Indonesia; Lao People's Democratic Republic; Malaysia; Maldives; Mongolia; Myanmar; Nepal; Pakistan; Philippines; Singapore; Sri Lanka; Taiwan, Province of China; Thailand; Viet Nam.

#### Commonwealth of Independent States: 8 economies

Armenia; Azerbaijan; Belarus; Kazakhstan; Kyrgyzstan; Moldova; Russian Federation\*; Tajikistan.

#### Latin America & the Caribbean: 36 economies

Argentina; Bolivia; Brazil; Dominican Republic; Ecuador; El Salvador; Guyana; Haiti; Honduras; Nicaragua; Panama; Paraguay; Peru; Uruguay; Anguilla; Antigua and Barbuda; Aruba; Bahamas, The; Barbados; Belize; Bermuda; Bonaire; Cayman Islands; Curaçao; Dominica; Grenada; Jamaica; Montserrat; St. Kitts and Nevis; St. Lucia; St. Vincent and the Grenadines; Sint Maarten; Suriname; Trinidad and Tobago; Turks and Caicos Islands; Virgin Islands, British.

#### Western Asia: 12 economies

Bahrain; Egypt, Arab Rep.\*; Iraq; Jordan; Kuwait; Morocco\*; Oman; Qatar; Saudi Arabia; Sudan\*; United Arab Emirates; West Bank and Gaza.

#### Eurostat & OECD: 49 economies

Albania; Australia; Austria; Belgium; Bosnia and Herzegovina; Bulgaria; Canada; Chile; Colombia; Costa Rica; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Iceland; Ireland; Israel; Italy; Japan; Korea, Rep.; Latvia; Lithuania; Luxembourg; Macedonia, FYR; Malta; Mexico; Montenegro; Netherlands; New Zealand; Norway; Poland; Portugal; Romania; Russian Federation\*; Serbia; Slovakia; Slovenia; Spain; Sweden; Switzerland; Turkey; United Kingdom; United States.

#### Special participation: 3 economies

Iran; Georgia; Ukraine.

<sup>\*</sup> participating under two regions.

#### Overall timetable

Collection of data via surveys and compilations for benchmark year 2017 took place over 2016, 2017 and 2018. National accounts expenditure data compilation started in the first quarter of 2017 and will continue until the third quarter of 2019. A roadmap to publication sets out the steps towards the publication of the ICP 2017 cycle results by April 2020. Also, given the large revisions in GDP expenditures for some countries after the publication of ICP 2011 results, the TAG and the Governing Board agreed that revised ICP 2011 results, reflecting revisions in expenditure data, will be produced and published together with the ICP 2017 results. In addition, global PPP time series bridging benchmark results for 2011 and 2017, and incorporating interim regional results where possible, will be produced.

Table 2: Roadmap towards the publication of the ICP 2017 cycle results

| Phase I                     |   | 2019 |   |   |   |    |    |   |   | 2020 |   |   |   |    |    |   |
|-----------------------------|---|------|---|---|---|----|----|---|---|------|---|---|---|----|----|---|
| Pilase i                    | J | F    | M | Α | М | J  | J  | Α | S | 0    | N | D | J | F  | М  | Α |
| 4th GB meeting              |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |
| Data Submission             |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |
| Data Validation             |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |
| HHC Preliminary Calculation |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |
| 7th IACG meeting            |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |
| 3rd TAG meeting             |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |
| Phase II                    |   |      |   |   |   | 20 | 19 |   |   |      |   |   |   | 20 | 20 |   |
| Phase II                    | J | F    | M | Α | М | J  | J  | Α | S | 0    | N | D | J | F  | M  | Α |
| Data Submission             |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |
| Data Validation             |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |
| GDP Preliminary Calculation |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |
| 8th IACG Meeting            |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |
| 4th TAG Meeting             |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |
| 5th GB Meeting              |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |
| Final Phase                 |   | 2019 |   |   |   |    |    |   |   | 2020 |   |   |   |    |    |   |
| Final Phase                 | J | F    | M | Α | М | J  | J  | Α | S | 0    | N | D | J | F  | M  | Α |
| Final Regional PPPs         |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |
| Final Global Calculation    |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |
| TAG Final Results Review    |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |
| Report Finalization         |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |
| 6th GB Meeting              |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |
| Official Release            |   |      |   |   |   |    |    |   |   |      |   |   |   |    |    |   |

#### Data submission and global validation

Regional implementing agencies submitted all available household consumption data from the 2017 cycle by the end of July 2018; this allowed the ICP Global Office to initiate the global validation process in September 2018. Data quality has been steadily improving since then. As of April 2019, household consumption data from 176 economies have been submitted to the ICP Global Office.

Regional implementing agencies submitted all available non-household consumption data, GDP expenditures and regional PPPs by the end of January 2019, and the global validation for these data was launched in February 2019. As of April 2019, not all non-household consumption data, GDP expenditures and regional PPPs have been submitted to the ICP Global Office; however, these data will continue to be submitted incrementally by the regional implementing agencies, as they become available.

Table 3 below summarizes the status of submission of all ICP 2017 data as of April 2019; this picture will continue to change over the coming months as more data are submitted. It is to be noted that Eurostat and OECD are not expected to submit data for all their countries for housing and construction, but rather a subset of data to allow for linking, and they are not expected to submit data for private education.

Table 3: Status of submission of ICP data as of April 2019

| Region            | Houshold<br>Consumption | Housing<br>Rentals | Housing<br>Volume | Education | Government | Machinery & Equipment | Construction | GDP<br>Expenditures | Regional<br>PPPs |
|-------------------|-------------------------|--------------------|-------------------|-----------|------------|-----------------------|--------------|---------------------|------------------|
| Africa            | 100%                    | 90%                | 84%               | 98%       | 96%        | 100%                  | 100%         | 88%                 |                  |
| Asia              | 100%                    | 100%               | 86%               | 100%      | 100%       | 100%                  | 100%         | 95%                 | 100%             |
| CIS               | 100%                    |                    |                   |           |            | 100%                  |              |                     |                  |
| LAC               | 100%                    | 58%                | 42%               | 64%       | 53%        | 69%                   | 58%          | 33%                 |                  |
| WA                | 100%                    | 100%               | 83%               | 100%      | 100%       | 100%                  | 100%         | 100%                |                  |
| EU-OECD           | 100%                    | 63%                | 49%               |           | 98%        | 100%                  | 24%          | 96%                 | 96%              |
| Sp. participation | 100%                    | 33%                | 100%              | 33%       | 67%        | 100%                  | 100%         | 67%                 | 67%              |

The next official data submission to the ICP Global Office is scheduled for end-July 2019; at which time all regions are expected to submit semi-final household consumption and non-household consumption data, GDP expenditures, and regional PPPs.

#### Capacity building activities

Many countries and regions have benefited from capacity building efforts by the Regional Implementing Agencies and the ICP Global Office through workshops and technical assistance missions. Over the year since May 1, 2018 these have included:

- Eighteen regional or sub-regional workshops to discuss data and metadata requirements, train countries on ICP approaches and methods, and collectively validate data collected by the countries and preliminary regional results.
- An additional twenty technical assistance missions and country workshops to help countries grow their statistical capacity in the area of PPPs, price statistics and national accounts.

Tables 4 and 5 below provide details of these activities.



UN-ECLAC staff met with the staff of the Central Bureau of Statistics Curação in January 2019 to review price surveys for the ICP 2017 and planning for the ICP 2020 cycle.

Furthermore, the ICP Global Office provided five tools to countries and regions to support the intracountry and inter-country validation of National Accounts expenditure data, as well as the validation of housing volume, rentals and expenditure data. Table 4: Regional and sub-regional workshops

| Month           | Venue            | Purpose  |  |  |  |  |  |
|-----------------|------------------|--|--|--|--|--|--|
|                 | Africa           |  |  |  |  |  |  |
| June 2018       | Cote<br>d'Ivoire | Participants in a meeting on machinery and equipment and construction and civil engineering surveys reviewed survey approaches, discussed specific regional circumstances for conducting the surveys, reviewed preliminary datasets for selected countries in Africa, and established a timeline for upcoming activities in the region.  |  |  |  |  |  |
| July 2018       | Kenya            | A regional workshop, convened by AfDB and attended by COMESA countries and ICP Global Office staff, discussed CPI-ICP integration in COMESA countries, ICP implementation progress, household consumption prices for ICP 2017, and price surveys for non-household consumption.  |  |  |  |  |  |
| April 2019      | Ethiopia         | A regional workshop was convened by AfDB with ICP Global Office staff and countries to review, edit and validate national accounts and household and non-household consumption price data.   |  |  |  |  |  |
|                 |                  | Asia   |  |  |  |  |  |
| May 2018        | Thailand         | Price statisticians from participating countries, the ADB, the ICP Global Office, and technical consultants attended a regional workshop to discuss the 2016 PPP Update preliminary results, the methodology for global and regional prices and PPP extrapolation, the data requirements and methodology for estimating housing PPPs, and the PPP eLearning course. The participants also reviewed and validated prices for household consumption items. |  |  |  |  |  |
| July 2018       | Thailand         | Participants from 20 countries, the ADB and the ICP Global Office reviewed prices for household and non-household consumption items, and discussed pharmaceutical products, the status of housing data, and the provision of prices to the ICP Global Office for validation.   |  |  |  |  |  |
| October<br>2018 | Thailand         | Representatives from 21 countries and experts from the ICP Global Office joined the ADB to review government statistics for ICP purposes and related operational materials, the concept of ICP detailed GDP expenditures, the ICP 2017 classification, 2016 detailed expenditure data and metadata on country practices, and 2017 price data for housing.  |  |  |  |  |  |
| December 2018   | Indonesia        | Experts from 22 countries, the ADB, the ICP Global Office, and consultants jointly reviewed data from the ICP 2017 cycle household and non-household consumption surveys, GDP expenditure estimates, housing rentals, as well as housing volume data and quality indicators.   |  |  |  |  |  |
| April 2019      | Thailand         | Country participants, the ADB, and staff from the ICP Global Office reviewed data on housing volume, housing rentals, government compensation, and GDP expenditures.   |  |  |  |  |  |

| Month             | Venue  | Purpose   |  |  |  |  |  |
|-------------------|--|---|--|--|--|--|--|
|                   | Commonwealth of Independent States             |   |  |  |  |  |  |
| May 2018          | Russian<br>Federation                          | CIS-STAT staff and participating countries discussed the preliminary 2017 household consumption survey results and selected issues regarding machinery and equipment surveys.   |  |  |  |  |  |
| December<br>2018  | Russian<br>Federation                          | CIS-STAT hosted a meeting to discuss national accounts, implementation of 2008 SNA, and disaggregation of GDP expenditures for the 2017 cycle. Attendees included representatives of the CIS countries participating in the ICP 2017 cycle, Turkmenistan, and Uzbekistan.   |  |  |  |  |  |
|                   |  | Latin America and the Caribbean   |  |  |  |  |  |
| May 2018          | Panama   | Staff from UN-ECLAC, CARICOM and the ICP Global Office, together with price statisticians and national accountants from participating countries, and technical consultants, reviewed and validated the initial 2017 ICP cycle household consumption prices. LAC countries were also introduced to the ICP price collection forms for housing, education, government compensation, machinery and equipment, and construction and civil engineering. The ICP national accounts requirements were also presented to countries and participants discussed future ICP activities in LAC. |  |  |  |  |  |
| October<br>2018   | Trinidad<br>and<br>Tobago                      | UN-ECLAC and CARICOM jointly hosted attendees from 18 countries, the Eastern Caribbean Central Bank (ECCB) and the ICP Global Office at a technical meeting to discuss ICP data requirements with a focus on national accounts expenditure data and government compensation and carried out hands-on exercises to enhance familiarity with the inputs required.   |  |  |  |  |  |
| December<br>2018  | Colombia                                       | Price statisticians from 31 countries were hosted by UN-ECLAC and CARICOM and were joined by the ICP Global Office and consultants on machinery and equipment and construction and civil engineering. The group reviewed prices from the ICP 2017 cycle and discussed the remaining activities for this cycle.  |  |  |  |  |  |
|                   | <u>,                                      </u> | Western Asia  |  |  |  |  |  |
| September<br>2018 | Egypt  | A session within the workshop on the Assessment of Price Statistics and Harmonization of Price Indices for the period 2011 to 2016, was organized by UN-ESCWA and attended by price experts and national accountants from eleven countries. Attendees focused on both household and non-household consumption price trends, and GDP expenditure trends.   |  |  |  |  |  |
| December<br>2018  | Turkey   | National accountants from eleven countries, together with experts from the UN-ESCWA and the ICP Global Office, discussed detailed national accounts expenditure data for both the 2017 cycle and for the timeseries from 2011-2016.   |  |  |  |  |  |

| Month            | Venue  | Purpose   |
|------------------|--------|---|
| December<br>2018 | Turkey | Price statisticians from ten countries with UN-ESCWA and the ICP Global Office reviewed the data collected for household consumption, government consumption, machinery and equipment, and construction and civil engineering for the 2017 cycle. |
| April 2019       | Turkey | Attendees at a sub-regional workshop on the computation of a harmonized consumer price index (HCPI) discussed the results of the pilot conducted in six countries and reviewed preparations for a regional HCPI.                                  |
| April 2019       | Turkey | Participating countries, together with UN-ESCWA, discussed the validation of 2017 price data and developing and updating a new regional item list for the 2020 round.   |



A regional technical evaluation and review workshop for the ICP 2017 cycle was organized by the ADB, and held in Bangkok on July 23-28, 2018.

A regional price data meeting was hosted by UN-ESCWA in Istanbul on December 7 -11, 2018, and attended by staff from ten countries and the ICP Global Office.





CIS-STAT hosted national representatives of participating countries and Turkmenistan and Uzbekistan at a meeting on December 12-13, 2018 in Moscow.

Table 5: Technical assistance missions

| Month            | Venue                | Purpose   |
|------------------|----------------------|---|
|                  |                      | Africa  |
| October<br>2018  | Sudan                | Technical assistance to <b>Sudan</b> 's Central Bureau of Statistics (CBS) provided additional training on ICP operational tools, price data validation, GDP breakdown, private education, Government compensation, machinery and equipment, and construction. Dual participation issues were also fine-tuned.  |
| November<br>2018 | Malawi               | Technical assistance provided further training to <b>Malawi</b> 's National Statistical Office (NSO) with regards aligning GDP compilation and ICP GDP breakdown methodology to facilitate GDP rebasing. As a result, GDP vectors for available years have been compiled, validated and submitted to AfDB.  |
| November<br>2018 | Egypt                | Technical assistance was provided to <b>Egypt</b> 's Central Agency for Public Mobilization and Statistics (CAPMAS) on ICP operational tools, price data validation, GDP breakdown, private education, Government compensation, machinery and equipment, and construction. Dual participation issues were also fine-tuned.  |
| November<br>2018 | South Africa         | Statistics <b>South Africa</b> met with ICP Global Office staff for a joint review of price data for South Africa and discussed the temporal consistency of ICP data between the ICP 2011 and 2017 cycles, as compared with relevant CPI trends in South Africa. Additionally, they took stock of their joint work on subnational PPPs in South Africa, using existing CPI data. This work advances the ICP-CPI integration in the country. |
| February<br>2019 | Congo<br>Brazzaville | Technical assistance was provided to <b>Congo Brazzaville</b> to review the data collected on private education, and review prices for construction prices in the simplified questionnaire.   |
| February<br>2019 | Morocco              | A joint AfDB-Afristat mission to <b>Morocco</b> helped advance the ICP program implementation with an agreement to allocate resources to building capacity in price statistics and conducting country data validation workshops. The mission also validated data from the country's dual participation process.   |
| March<br>2019    | Cameroon             | Technical assistance training was provided to <b>Cameroon</b> 's National Statistical Office on GDP breakdown methodology, facilitating the compilation and validation of GDP vectors with subsequent submission to AfDB.   |

| Month            | Venue                               | Purpose   |  |  |  |  |  |
|------------------|-------------------------------------|---|--|--|--|--|--|
| March<br>2019    | Equatorial<br>Guinea                | Technical assistance training was provided to the <b>Equatorial Guinea</b> 's ICP National Coordination staff to master ICP operational materials, aiding the completion of data submissions.   |  |  |  |  |  |
|                  | Asia                                |   |  |  |  |  |  |
| August<br>2018   | China                               | The National Bureau of Statistics of <b>China</b> (NBS) hosted ICP Global Office staff to deliver training on sub-national PPPs to staff from the NBS, regional statistical offices and the International Statistical Information Center. Attendees also discussed methodological issues of price validation, aggregation, and linking.   |  |  |  |  |  |
|                  |                                     | Commonwealth of Independent States  |  |  |  |  |  |
| June 2018        | Tajikistan                          | CIS-STAT staff met with experts from <b>Tajikistan</b> 's National Statistical Office to assist with the validation of prices for consumer goods and services. The group also discussed the questionnaire on monitoring prices for consumer goods and methods for identifying inaccuracies and errors.  |  |  |  |  |  |
| November<br>2018 | Moldova                             | CIS-STAT staff met with the National Statistical Office of <b>Moldova</b> to discuss clarification of individual prices for consumer goods and services; familiarization with the procedure for price collection for consumer goods and services; filling in the ICP questionnaire on data collection for consumer goods; and further activities in the framework of ICP-CIS. The issues of pricing for different types of services were discussed with specialists from the price statistics department. |  |  |  |  |  |
|                  |                                     | Latin America and the Caribbean   |  |  |  |  |  |
| July 2018        | Guyana                              | Technical assistance to the <b>Guyana</b> National Bureau of Statistics provided by UN-ECLAC covered product identification for the household consumption survey and subsequent price collection, data validation and calculations. Additionally, non-household consumption surveys and GDP requirements for the ICP were discussed.  |  |  |  |  |  |
| July 2018        | Montserrat                          | A technical assistance mission from UN-ECLAC met with the <b>Montserrat</b> National Statistical Office to review price and national accounts requirements and provide working guidelines and technical assistance.   |  |  |  |  |  |
| January<br>2019  | Curaçao                             | A UN-ECLAC country technical assistance mission to <b>Curação</b> discussed price surveys and national accounts compilation.  |  |  |  |  |  |
| February<br>2019 | Jamaica                             | A UN-ECLAC country technical assistance mission to <b>Jamaica</b> discussed price surveys and national accounts compilation.  |  |  |  |  |  |
| February<br>2019 | St Vincent<br>and the<br>Grenadines | A country technical assistance mission by UN-ECLAC discussed national accounts in <b>St Vincent and the Grenadines</b> .  |  |  |  |  |  |

| Month              | Venue                  | Purpose  |  |  |  |  |
|--------------------|------------------------|--|--|--|--|--|
| February<br>2019   | Antigua and<br>Barbuda | A country technical assistance mission to <b>Antigua and Barbuda</b> by UN-ECLAC discussed national accounts.  |  |  |  |  |
| April 2019         | Montserrat             | A country technical assistance mission to <b>Montserrat</b> was undertaken by UN-ECLAC to build the technical capacity of the national ICP staff responsible for price data collection and compilation of detailed national accounts expenditure data.   |  |  |  |  |
| Dual participation |                        |  |  |  |  |  |
| December<br>2018   | Turkey                 | At a meeting for Africa/Western Asia dual participating countries, representatives from the AfDB, UN-ESCWA and the ICP Global Office joined <b>Egypt, Morocco and Sudan</b> to review the data for dual participating countries and to discuss the approach and the process of data sharing, validation, harmonization and submission. |  |  |  |  |
|                    | Special participation  |  |  |  |  |  |
| October<br>2018    | Turkey                 | A meeting for the special participation of <b>Iran</b> in the ICP was convened by the ICP Global Office to review progress, assess Iran's ICP 2017 cycle data submissions, present supplementary ICP data and metadata requirements, and discuss Iran's future participation in the ICP.   |  |  |  |  |

#### Communication and dissemination of ICP 2017 cycle results

The ICP Governing Board recommended that a <u>communication strategy</u> should be developed to support the release of the ICP 2017 cycle results, with the objective of clarifying the correct uses and limitations of PPPs and related-measures.

This release will include three major datasets: data for benchmark year 2017; revised data for benchmark year 2011; and PPP timeseries bridging 2011 and 2017 benchmark results. It will also encompass main findings and analytical products, methodological notes, metadata, and guidance on the use of these data. The strategy considers the timing of the release of these outputs, their audience, the messages accompanying the outputs and the vehicles used to disseminate them.

This strategy is currently being considered by the various ICP governance bodies, with final endorsement by the Governing Board anticipated in mid-2019.

#### Preparations for the ICP 2020 cycle

Preparations for the ICP 2020 cycle were initiated in 2019. Regional implementing agencies and participating countries have agreed on the schedule of surveys and data collections. Efforts are underway to update the item lists and survey forms, both global and regional, for the ICP 2020 surveys and collections. Funding mobilization will be initiated as well to ensure the cycle is launched and implemented without delay.

#### Research activities

Established an interpolation approach for building PPP time series.

Examined improved housing quality indicators for enhanced results for housing.

Started groundwork for future rolling price surveys, enabling annual comparisons.

Initiated the drafting of guidelines on CPI-ICP synergies and sub-national PPPs.

#### Research agenda

The ICP <u>Research Agenda</u> continues to drive innovation, methodology and guidance of the program. Activities focus on these thirteen topics:

- Compilation of PPP Time Series and the Rolling Survey Approach;
- PPPs and Real Expenditures for Dwelling Services;
- Productivity Adjustment for Government and Construction Labor;
- Fine Tuning Global Linking Procedures;
- Quality and Reliability of PPPs;
- Uses of PPPs for National and International Policy Making;
- CPI-ICP Synergies and Sub-National PPPs;
- PPPs for Exports and Imports;
- PPPs for Construction;
- PPPs for Health and Education;
- ICP PPPs and Global Poverty Measurement;
- Exploring Innovations in Technology and Data Sources for PPPs; and
- Accounting for Product Quality Differences in PPP Measurement.

which together meet the following six objectives:

- building consistent PPP time series;
- improving PPP reliability and quality;
- addressing difficult to measure areas, such as housing;
- strengthening alignment between PPPs and national statistical programs;
- advocating wider uses and applications of PPPs; and
- exploring innovations in technology and new sources.

Over the past year, work has continued apace on this agenda, much of which has been taken forward by dedicated <u>Task Forces</u>, consisting of global experts and staff from regional agencies assisted by the ICP Global Office, under the auspices of the Technical Advisory Group.

#### Task Force on PPP Compilation and Computation

The third meeting of the <u>Task Force on PPP Compilation and Computation</u> was held in September 2018 in Washington, D.C. The Task Force:

- Reviewed the ICP 2017 and time series data submitted to date and reviewed the progress of the Task Team on Data and Metadata Quality Assurance for the PPP Time Series.
- Agreed on an interpolation approach for building global PPP time series, based on the updated datasets.
- Recommended the recalculation of the ICP 2011 results, incorporating the ICP 2017 classification, as well as revised GDP expenditures and regional results, where applicable.
- Assessed the impact of relying on new data sources for estimating productivity adjustment factors and recommended to utilize the factors estimated based on the current data sources for ICP purposes, including the revised ICP 2011 and the ICP 2017 results.
- Noted the results of a study on substitution bias in common product descriptions and suggested that the work be further examined under the Quality and Reliability of PPPs item within the ICP Research Agenda.



Meeting of the Task Force on PPP Compilation and Computation, September 2018.

#### Task Force on Housing

The third meeting of the <u>Task Force on Housing</u> was held in September 2018 in Washington, D.C. The Task Force:

- Welcomed efforts on collecting better-quality housing data in the regions and reiterated the need for timely data submission and validation.
- Recommended some enhancements to the proposed global validation approach.
- Reviewed new research on housing quality indicators and their application for linking the regions by the housing volume approach, and research by the Asian Development Bank on alternative approaches to measuring housing quality data.
- Planned to investigate further the proposal to reclassify dwellings by durability of structure rather than style of structure in future ICP cycles.

#### Task Force on Country Operational Guidelines and Procedures

The third meeting of the <u>Task Force on Country Operational Guidelines and Procedures</u> was held in September 2018 in Washington, D.C. The Task Force:

- Agreed that the ICP should, after the ICP 2020 benchmark cycle, adopt the rolling price survey approach allowing annual comparisons, and that preliminary groundwork be initiated to ensure its feasibility in future years.
- Examined three sub-national PPP case studies, from Italy, the UK and the USA, and concluded that sub-national PPP guidelines would benefit from these and other case studies, should use standardized methodology, and should distinguish clearly between spatial price adjustment factors and subnational PPPs.
- Reviewed countries' responses to the CPI-ICP Integration Survey and agreed to prepare guidance
  that lays out the basic principles of survey integration and includes specific examples of how this
  is achieved in selected champion countries.

#### Task Force on PPPs and Poverty Measurement

A meeting on ICP PPPs and Global Poverty Measurement took place in May 2018. The agenda focused on establishing a working relationship between the World Bank's Global Poverty Monitoring working groups and the ICP TAG on the use of ICP PPPs in global poverty measurement. The meeting was attended by Sir Angus Deaton, Chair of the ICP TAG, leading poverty experts from the World Bank and academia, and ICP Global Office staff. Terms of Reference for a Task Force on PPPs and Poverty Measurement are being developed, and they will be presented to the ICP TAG for adoption.

#### Advocacy and knowledge

#### 50<sup>th</sup> Anniversary of the International Comparison Program

The ICP celebrated its <u>50th anniversary</u> in 2018, and the community used this milestone to raise awareness of the program's role and its outputs. In this regard, events were held around the forty-ninth session of the UNSC in March 2018 in New York, including a reception for Commission Delegates, and a video and poster exhibition.



The "50 Years of Measuring World Economies" event at the World Bank in Washington D.C.

This was followed in May 2018 by a celebratory event at the World Bank in Washington D.C., at which Sir Angus Deaton, 2015 Nobel Prize Laureate in Economics and ICP TAG Chair, delivered the keynote speech emphasizing how PPPs were crucial to measuring economies and poverty in 1968, and remain the cornerstone of today's future-looking agenda for sustainable development. World Bank CEO Kristalina Georgieva, the 71st Secretary of the United States Treasury Larry Summers, Georgetown University Provost Robert M. Groves, and ICP founding member Alan Heston, among others, also spoke of the ICP's evolution and current relevance. The event was livestreamed, allowing a global audience to follow proceedings.

Outreach materials such as an ICP video summarizing the history and importance of the program and a series of posters were prepared and showcased. Also, many participating countries provided testimonials on the impact and relevance of the program.

#### Fifty Years of the International Comparison Program: Achievements and Moving Forward

The Beijing Normal University was host to a gathering of experts and academics in October 2018, at the conference "Fifty Years of the International Comparison Program: Achievements and Moving Forward". Chaired by Professors Qui Dong and Prasada Rao, this event bookended a year of celebrating the first fifty years of the ICP and focused on what was in the program's future with an expanding digital economy, the

growing capabilities of artificial intelligence, and new partnerships enabled by new technologies. ICP pioneer Alan Heston, University of Pennsylvania, and Haishan Fu, Director of the Data Development Group of the World Bank, opened the conference with keynote speeches. Academics from many institutions as well as the World Bank and OECD then presented the latest knowledge and research on a range of topics including ICP theory, prices, living standards, income, and productivity, as well as examples of methodology in practice



"Fifty Years of the International Comparison Program: Achievements and Moving Forward" in Beijing, October 2018.

#### African Symposium

The African Development Bank presented an advocacy note on the ICP at the Thirteenth African Symposium on Statistical Development, held in Addis Ababa in October 2018. As a result, the Statistical Commission for Africa, in its resolution, urged member states to advocate for the use of ICP data for promoting trade and regional integration, and for all constituents to complete the 2017 cycle in a timely manner. The full text can be found <a href="here">here</a> in paragraphs 68 and 69.

#### **UN-ESCWA Statistical Committee side event**

A side event to the UN-ESCWA statistical committee presented posters and information about the ICP to attendees and ICP staff were on hand to initiate discussion and answer questions.



ICP booth at the UN-ESCWA Statistical Committee meeting in January 2019.

#### World Data Forum

The World Bank booth at the UN's <u>World Data Forum</u> in Dubai in October 2019 provided information on the International Comparison Program to the many visitors attending the event.

#### World Bank Data Day

The World Bank held its first Data Day on February 13, 2019, attended by more than 800 Bank staff and 300 external partners and experts. Pinelopi Goldberg, the new Chief Economist of the World Bank Group, delivered the <a href="keynote speech">keynote speech</a> for Data Day, and referred to the ICP as one of the established outputs of the Bank's data work. The program also got a mention in her follow-up <a href="blog">blog</a>.

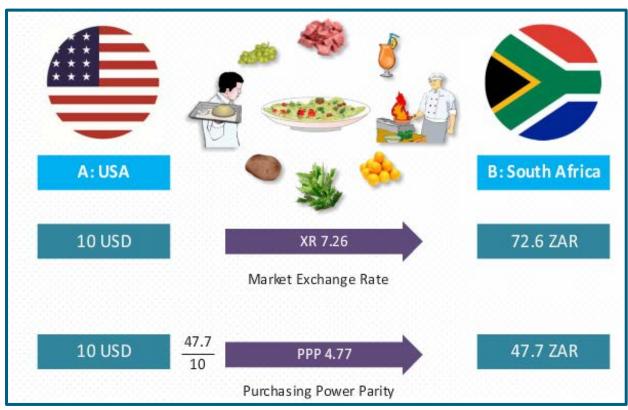
The ICP Global Office manned a popular booth — "What can you buy for \$1?", which showcased the concepts behind purchasing power parities, illustrated the results of the ICP 2011 cycle, and displayed the myriad applications and uses of PPPs. Additionally, team members delivered a bespoke seminar "Understanding Purchasing Power Parities", which elicited a lively discussion from the assembled group of World Bank economists.



ICP Global Office staff welcome browsers to the ICP booth at the February 2019 World Bank Data Day.

#### PPP eLearning course

The PPP eLearning course <u>"Fundamentals of Purchasing Power Parities"</u> continues to expand its enrollment since being officially released in March 2018 and more than 420 participants have accessed it to date to learn about PPP concepts, data requirements, methodology, calculations, and uses. This interactive course serves policymakers, international organizations, researchers, students and the general public who wish to enhance their knowledge of PPPs. Feedback has been positive, with respondents to a survey scoring the course 6.25 out of a possible 7 in terms of satisfaction, delivery and other metrics. The course is delivered through the World Bank's online Open Learning Campus, a web-based destination for development learning. The course has also been used widely in regional and national workshops to train government officials.



Module 1 of the online PPP eLearning course explains the differences between market exchange rates and PPPs.

#### ICP Highlights newsletter

The ICP Global Office has lately rebranded its quarterly newsletter as "ICP Highlights". With a new user-friendly platform, the newsletter continues to provide information covering ICP governance, capacity-building and outreach activities, as well as information on the latest uses of ICP and PPP data. A recently introduced series has highlighted the work of country teams — recently both Georgia and Viet Nam featured, with ICP staff explaining their work processes, the challenges they face and the innovations that help build their statistical capacity. We will publish in upcoming issues writeups from Saudi Arabia, India and South Africa, which highlight the impact the ICP had on their statistical capacity, and the uses they make of the data generated by the program. These country experiences are included in the Annex to this report.



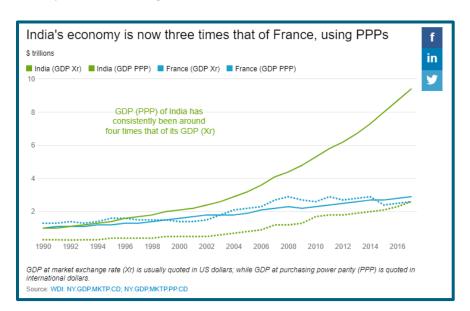
#### **ICP** website

The <u>ICP website</u> was revamped in April 2017 and is now a comprehensive source for all information pertaining to the International Comparison Program:

- A headline carousel is continuously updated with the latest uses of PPPs, whether in blogs, reports or academic analysis;
- The overview summaries the ICP, the concept of PPPs, and the uses made of PPPs;
- The chronology of the program is provided under the <u>history</u> page;
- The governance of the program is provided under the <u>governance</u> page with links to meeting documents and minutes;
- The <u>regions</u> page lists the components and participants of the regional programs with links to the respective implementing agencies;
- The <u>data</u> page links to all sources from which users may access the 2005 and 2011 ICP results;
- The procedures, concepts and frameworks used for collating and calculating the ICP results are linked through the <u>methodology</u> page;
- The mechanisms and components of the ICP Research Agenda is linked through the <u>research</u> page; and
- Additionally, visitors to the website can also access knowledge resources, <u>videos</u>, the <u>ICP</u> newsletter and uses and outreach.

#### **ICP** blog series

The new <u>ICP blog series</u> explores ideas and issues under the International Comparison Program umbrella – including innovations in price and data collection, discussions on purpose and methodology, as well the use of purchasing power parities in the growing world of development data. Authors from across the globe, whether ICP practitioners or researchers making use of ICP data, are encouraged to submit relevant blogs for consideration to <u>icp@worldbank.org</u>.



The blog <u>Measuring India's economy using PPPs shows it surpassed France 25 years ago</u>, published in September 2018, explores the differences between measuring GDP using PPPs, and using exchange rates.

#### **Uses of Purchasing Power Parities**

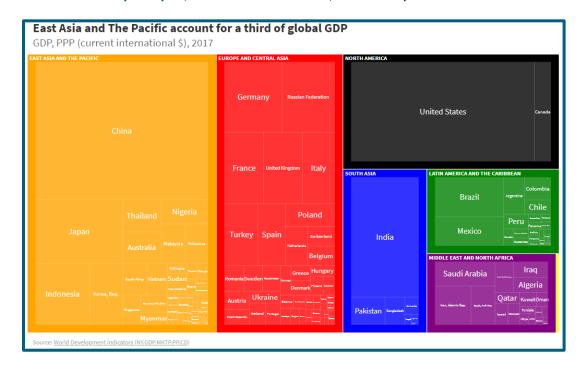
#### Overview

PPPs and underlying ICP data are utilized for a plethora of analyses at the global, regional and national levels and cover many themes under the economic, environmental and social development umbrellas. Cross-country and temporal studies employ PPPs for consistent, robust and meaningful data outputs, used not only by the development community and researchers, but by policymakers, the media and the wider public.

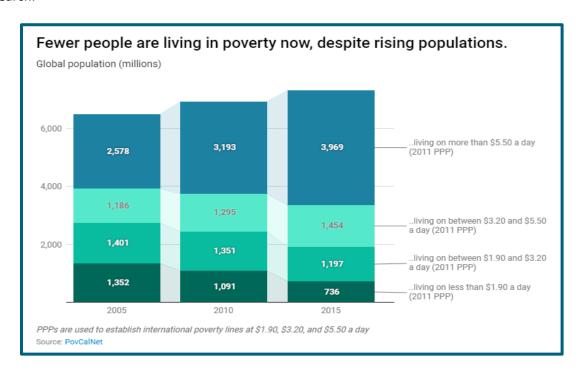
In order to gauge the frequency of PPP data use, a recent review of how often "purchasing power parity/ies" appear online over one month in 2018 was carried out using the Factiva research tool, which accesses 36,000 online sources. The term(s) appeared in over 500 references during the period and included around 115 articles by major media news outlets. India, China and USA were mentioned most often, while around 80 other countries were also referenced. Reports by the international development community, for example the United Nations, the International Labour Organisation, the International Monetary Fund, the International Energy Agency, the World Health Organisation, and the World Bank to name a few, and papers from other research bodies and academic outlets also contributed to this total. Factsheets and forecasts for individual countries made up around 150 of this monthly total.

Purchasing power parities are used to compare the size of national economies using **GDP** in **PPP** terms. The ICP Global Office has produced a variety of leaflets, videos and blogs explaining these different measures of economy, which are widely distributed though World Bank channels and linked from the <u>ICP</u> website.

**GDP per capita in PPP terms** is also used widely, often correlated against other indicators and variables to explain spatial and temporal changes. The World Bank's indicators **GDP per person employed** and **Gross National Income per capita**, measured in PPP terms, are similarly used.



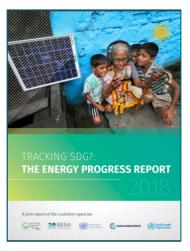
International poverty lines are expressed using PPPs, and reflect the income necessary for, or cost of consuming, the minimum daily nutritional, clothing and shelter needs locally. The lowest of these, \$1.90 a day (2011 PPPs) is based upon the national poverty lines of low-income countries, and those living below this line (the "poverty headcount") are considered to be the "extreme poor". Other international poverty lines are based on incomes and consumption levels in lower-middle (\$3.20) and upper-middle income countries (\$5.50). These poverty lines, and their associated poverty headcounts, form the basis of much research.



Various analyses **convert other monetary values into PPP dollars** to enable cross-border comparisons. For example, the value of unpaid care work, minimum wages, government spending on education, the cost of violence, and potential savings through reduced child mortality and better nutrition. Notably, mean per capita consumption or income for both the poorest 40 percent of society and the general population is measured using PPPs to monitor progress towards SDG 10.1 which promotes more equitable prosperity over time.

#### Sustainable Development Goals

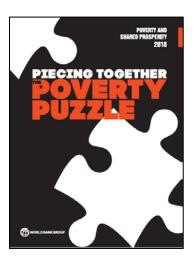
The 2030 Agenda for Sustainable Development uses PPPs in official indicators within its targets and goals. Other indicators using PPPs help us dive deeper into the goals. The first of the official targets, <u>target 1.1</u>, seeks to eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day (\$1.90 2011 PPP). <u>Target 3.1</u> seeks a reduction in the proportion of mothers that die in childbirth, and the modelled indicator used to monitor this uses GDP expressed in PPP terms. <u>Target 3.8</u> analyses the financial risk protection for people facing health expenses, by monitoring the people pushed below the poverty line by out-of-pocket health care expenditure.



GDP in PPP terms allows a measure of energy efficiency for target 7.3: energy intensity, the reciprocal of efficiency, is calculated as the amount of energy used to produce one dollar's (in PPPs) worth of goods and services. The May 2018 publication "Tracking SDG7: The Energy Progress Report 2018", jointly authored by the International Energy Agency, the International Renewable Energy Agency, the United Nations Statistics Division, the World Bank and the World Health Organization, illustrates how this differs between countries.

Similarly, SDG <u>target 9.4</u> strives for clean and environmentally sound technologies and industrial processes and monitors CO2 emissions per unit of GDP expressed in USD constant 2010 PPP. The UN Environment report "<u>Emissions Gap Report 2018</u>", released in November 2018, identifies high growth of GDP, measured in PPP terms, as a key driver of global carbon dioxide emissions from fossil fuel combustion, cement production and other industrial processes.

Growth in the incomes of the poorest against society as a whole is used in <u>target 10.1</u> to investigate whether the poorest are "catching up" with the rest of the population, and comparable means of income or consumption for different groups are measured in PPP dollars. "<u>Poverty and Shared Prosperity 2018: Piecing Together the Poverty Puzzle</u>", published in October 2018, investigates both Goal 1 and Goal 10 using PPPs.





The World Bank's SDG Dashboard, as well as the UN's "Sustainable Development Goals Report", track progress over time with indicators using PPPs, or analyze global and regional patterns of the resulting data. Similar compendia focusing on regions include "Key Indicators for Asia and the Pacific (2018)", released in September 2018, and the "2018 Africa Sustainable Development Report" from November 2018.

#### Institutional uses

The World Bank's twin goals of ending poverty and boosting shared prosperity rely on PPPs to monitor progress. The World Bank Group now incorporates PPPs into its <u>dynamic formula</u> for computing the shareholding rights of the International Bank for Reconstruction and Development member countries. Moreover, the IMF uses PPPs in its country quota formula, and the European Union uses them in the allocation of the European structural and investment funds.

#### Other recent highlights



The World Economic Forum's <u>Global Competitiveness</u> <u>Report 2018</u>, released in October 2018, relies on GDP in PPP terms to establish both domestic and foreign market size for the index's tenth pillar. Additionally, PPPs have been used to compare the economies of large cities across the world.

The World Bank report "Paths between Peace and Public Service: A Comparative Analysis of Public Service Reform Trajectories in Post conflict Countries" uses PPPs to convert local currency units (LCUs) for a given year and country into constant 2011 international dollars in order to facilitate comparisons of public service pay and wage bill data over time and across countries.



The two OECD reports "Beyond GDP: Measuring what counts for economic and social performance" and "For Good Measure: Advancing Research on Well-being Metrics Beyond GDP" look at poverty measures and income growth in PPP terms, as well as socio-economic growth.

The June 2018 report by the Institute for Economics and Peace "Global Peace Index 2018: Measuring Peace in a Complex World" includes an analysis of the economic impact of violence. It estimates the cost on the world economy in PPP terms, and assesses it to be around \$14.8 trillion in 2017. The largest

component of this is military expenditure. It also cites poverty headcounts for countries at different poverty lines using PPPs and correlates a "positive peace" measure with changes in GDP per capita (PPP).

The World Bank report "What A Waste 2.0: A Global Snapshot on Solid Waste Management to 2050", published in September 2018, presents national and urban waste management data from around the world and highlights the need for urgent action. The correlation between waste generation and GDP per capita in PPP terms is examined in a number of analyses.

The World Bank report "South Asia's Hotspots: the impact of Temperature and Precipitation changes on Living Standards", published in June 2018, looks at the potential effects of different future climate scenarios on living standards and well-being throughout South Asia. For example, GDP per capita, expressed in PPPs, in vulnerable countries is estimated to fall if dire carbon-intensive climate scenarios prevail in the future.

Other region-specific applications include an <u>Asian Development Bank study</u> into how a shift of workers from agriculture to other sectors helps lift them above a minimum monthly wage for a family of four calculated using PPPs.

The Eastern Caribbean Central Bank used PPPs in their <u>recommendations regarding allowances</u> for foreign service officers in St. Kitts and Nevis.

The UN-ECLAC publication "<u>The Inefficiency of Inequality</u>" uses PPP dollars to estimate productivity (output per employee), and correlates the tax burden of countries against their GDP per capita measured using PPPs.

"Critical Connections: Promoting Economic Growth and Resilience in Europe and Central Asia", released by the World Bank in August 2018, examines how trade, investment, migration, and other linkages among countries drive economic growth in the Europe and Central Asia region. PPPs are used in analyzing foreign direct investment inflows, migration characteristics, and travel patterns of citizens.

"North Africa Economic Outlook 2018" examines the macroeconomic performance of the region and the outlook for 2018 and 2019 and explores the relationship between food security and rural poverty. PPPs are used to establish the population living below various poverty lines, including a region specific one of \$2.90 a day, and calculates the average per capita deficit per day.

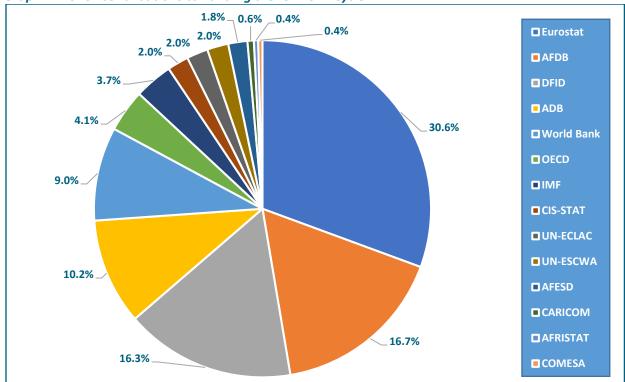
An analysis in "Cigarette affordability in the Russian Federation 2002-2017", published by the World Bank in September 2018, used PPPs to conclude that Russia has the most affordable cigarettes of any country.

The OECD report <u>"Stemming the Superbug Tide - Just a Few Dollars More"</u>, published in November 2018, uses PPPs extensively to calculate the costs of potential interventions to prevent deaths from superbug infections. The authors estimate that around \$3.5 billion will be spent every year across the OECD and EU on antimicrobial resistance-related complications.

The World Bank report "<u>Data-Driven Development</u>", from November 2018, examines how the increase in data held by government and firms in developing countries can assist in improved decision-making and better policy outcomes. The average revenue per user for large internet companies and providers are presented in PPPs enabling cross-market comparisons.

#### Funding the ICP 2017 cycle

The total cost of the ICP 2017 cycle is estimated at 24.5 million USD. A partnership of global, regional and sub-regional donors and implementing agencies contributes to funding the ICP 2017 cycle. Donor and agency contributions are presented in Graph 1 below.



**Graph 1: Donor Contributions to Funding the ICP 2017 Cycle** 

#### Risks and mitigation measures

#### Country participation risks

One hundred and seventy-six countries are participating in the 2017 cycle, compared with 177 countries that fully participated in the 2011 cycle. The Caribbean islands suffered the aftermath of a deadly hurricane that delayed the initiation of their ICP surveys; however, 23 islands were effectively conducting their ICP activities in 2018. Argentina is also participating in the 2017 cycle after a long hiatus. Iran, Georgia and Ukraine are conducting special exercises to link them to the global results through specific ICP regions.

Despite all efforts, a few countries in Africa, Asia, Latin America and Western Asia faced unstable geopolitical or economic situations that impeded their participation. Although these risks are very difficult to mitigate, global and regional implementing agencies are committed to building capacity in fragile and

conflict states, and they continuously encourage countries in those regions to participate in capacity-building activities, even if they are unable to conduct ICP surveys.

#### Timeliness risks

Four regions are implementing the 2017 cycle activities according to the agreed timetable, while two regions faced delays in initiating activities. Although these two regions have managed to catch up with data collection and validation efforts, the delays could impact not only the overall timeline, but also the coverage and quality of the results.

To manage these risks, the following mitigation measures were carried out in 2018: (i) the ICP Governing Board Co-Chairs issued letters to all national implementing agencies in May 2018 to urge them to complete the 2017 cycle activities per the agreed timetable to ensure a successful and timely implementation of the cycle; (ii) regional implementing agencies multiplied their follow up efforts with each country to check the status of their activities and any funding or technical assistance needs; (iii) regional implementing agencies ensured that regional workshops were carried out in a timely manner; (iv) the ICP Global Office deployed specialized technical assistance to regional and national agencies to help with the implementation of ICP activities; and (v) regional implementing agencies submitted all household consumption data from the 2017 cycle by end of July 2018 and non-household consumption data by the end of January 2019, which allowed the ICP Global Office to initiate the global validation process.

#### Quality, comparability, and openness risks

The quality of ICP results can be impacted by various factors, including the quality of input data, as well as data processing or calculation errors. To manage these risks, the following mitigation measures were put in place: (i) an increase in global and regional quality assurance efforts, including the organizations of multiple regional workshops and global meetings to validate input data, as well as technical assistance missions to countries to support their national validation efforts; (ii) a Task Team on Data Quality Assurance for the PPP Time Series was established to assess the data availability and quality for the PPP time series; and (iii) a dedicated Task Force was established under the TAG to compute global results and assess their quality prior to publication.

Another risk relates to the comparability of ICP results over time, which could limit their usability. Some comparability risks can be mitigated: for example, the decision to introduce no major methodological changes in the 2017 cycle ensures comparability of ICP results over time. However, some factors that detract from ideal comparability are outside of the program's control: for example, there are clear challenges of comparing results over time as countries migrate from some regions to the OECD.

Moreover, restricting the openness of ICP data would hinder the value of the program in the long run. To mitigate this risk, the IACG discussed extending the publication level of ICP results in order to cover more detailed headings. The Governing Board is also considering the possibility of providing users with access to more detailed data, while respecting country confidentiality constraints.

#### Financial and sustainability risks

The 2017 cycle faced challenges with the timely channeling of funds between donors, implementing agencies and countries because of increased layers of administrative processes or the ineligibility of some countries to receive funds. Overcoming administrative obstacles are being mitigated through increased efforts to cut through red tape.

To ensure the timely launch and implementation of the ICP 2020 cycle, efforts will begin in 2019 to mobilize the funding needed at global and regional levels to implement the cycle activities. Moreover, fund-raising efforts will go on to secure the resources needed to continue the implementation of the ICP Research Agenda.

Finally, to ensure the sustainability of ICP as a permanent program over the long-run, it is imperative to integrate it as part of national regular work programs. Implementing agencies are also urged to incorporate the ICP into their regular economic statistics work programs.

#### Conclusion

The implementation of the ICP 2017 cycle is underway in all regions, and various governance, capacity-building, research, knowledge and advocacy activities have been conducted over the last year. Challenges and risks still lie ahead; however, the global, regional and national implementing agencies remain dedicated to mitigating all risks to help achieve the immediate goal of a successful 2017 cycle, the midterm goal of launching the ICP 2020 cycle, and the long-term goal of a sustained and permanent ICP.

#### **Annex: Country experiences**

#### Georgia

The National Statistics Office of Georgia (Geostat) has participated in the ICP for more than a decade, starting with the 2005 comparison of the Commonwealth of Independent States (CIS). During the 2011 comparison, Georgia was linked to the CIS countries through a bilateral comparison with Armenia. In the 2017 comparison, Georgia, with the support of the Eurostat, is included in ICP 2017 as a guest participant in the Eurostat-OECD 2017 comparison.

As a complex and comprehensive international program, the ICP presents significant challenges for national statistical offices. In the area of price surveys, efforts to ensure the data collected correspond accurately to international specifications are necessary. In Georgia, this is achieved through rigorous quality checks, data validation and transparency in the methods used. With regards to national accounts, the estimation of expenditures on illegal activities represents one of the most challenging parts of the ICP 2017 work, as they are not currently included in estimates of GDP.

Nonetheless, the ICP and its outputs are extremely useful to Georgia and the Geostat team: the program promotes the skills of the staff involved and enhances the quality of the regular price statistics and the consumer price index (CPI). In addition, as the ICP 2017 work is closely connected with national accounts tasks, the most recent cycle fostered implementation of SNA 2008 in the national accounts of Georgia.

Currently there is no separate unit in charge of the ICP at Geostat. Therefore, the work is jointly coordinated by Price Statistics Department and National Accounts Department. Along with dedicated surveys, information from existing sources, such as household surveys, statistics of education, tourism, construction and population, is also used. Frequent internal meetings and discussions are held in order to analyze the data and ensure its compliance with Eurostat-OECD guidelines.

Together with routine checks during surveys, the work on potential improvements plays an important role. For example, recent technological innovations in price surveys, such as the integration of tablet PCs in CPI fieldwork, will guide the further development of ICP surveys. This includes the replacement of paper questionnaires and the introduction of automatic control mechanisms for better quality and improved timeliness.

In Georgia, PPPs represent an important analytical tool for economic and social planning, used by various administrative bodies such as the Ministry of Finance, the Ministry of Economy and Sustainable Development, the National Bank and others. PPPs are also widely used by the non-government sector, researchers and students. Thus, the active participation of Geostat in ICP global comparisons, combined with the high quality of the data collected, is a crucial to economic development.

Finally, Geostat staff would like to express their deep appreciation and gratitude to the international organizations and experts working with them on the ICP Project. Without their support, Georgia's participation in the ICP 2017 round would not be possible.

#### India

This spotlight falls on India, and the work of the five-strong ICP team in the Price Statistics division of Central Statistics Office (CSO) within the Ministry of Statistics and Programme Implementation (MoSPI), based in New Delhi.

India has a long history of involvement in the ICP, having been one of ten participating countries in the first round of 1970, and it has been involved in every ICP round since, bar one in 1993. Currently, Mr. Pravin Srivastava, Chief Statistician of India and Secretary of the Ministry of Statistics and Programme Implementation, is the Co-Chair of the ICP Governing Board, and draws on the country's long experience with the ICP to help guide the program's future.

Given the vastness of India, it is unsurprising that data are collected from a large number of outlets. Prices on food, beverages, clothing, footwear and education are collected from 577 urban and 320 rural markets across all but three of India's states. To ensure a representative sample, affluent, middle- and low-income urban areas are included. Prices for other items are collected from 108 urban markets located throughout 36 towns.

Price collection for both the ICP and national CPI is currently fairly well integrated: data collection for the former is carried out in a subset of the locations used for the latter, and prices for ICP items are collected, scrutinized and validated along with the data collected for the CPI items every month and submitted to the regional ICP implementing agency as and when required. The next base revision of India's CPI will allow further integration. Items common to both will be included continuously in CPI basket, together with relevant ICP nomenclature. Other household ICP items would be divided into ten to twelve sets and added to the CPI basket of different markets in similar agro-climatic zone/regions so that the complete household ICP basket is covered in each agro-climatic region of India. This way prices for consumable items of the ICP would be collected, scrutinized and validated along those for the CPI. This will help ensure a consistent flow of quality data for the ICP. Prices of non-consumable items would be collected separately one year out of three as per the ICP cycle.

Involvement in the ICP has allowed the team to build its understanding of spatial indices, and staff have been able to apply their knowledge gleaned from the ICP's validation tools to scrutiny of CPI data.

The ICP will also benefit from technologies being developed for the CPI: mobile apps that facilitate the upload of price data directly from the collection site will allow faster detection of inconsistencies, both shortening and improving the validation process.

One exciting application on the horizon is the compilation of sub-national PPPs for India. To enable this, CPI item specifications are being defined and codified following the principles of the ICP's Structured Product Description process. The resulting State-specific PPPs will inform the policymaking process at both national and state levels.

#### Saudi Arabia

The Kingdom of Saudi Arabia first participated in the ICP's 2005 cycle, and currently sits on the program's Governing Board. It is the largest of the participating economies in the Western Asia region, and recognizes the value the ICP brings to the country's statistical program and the wide use and relevance of PPPs. To this end, the General Authority for Statistics (GASTAT), based in Riyadh, has a dedicated ICP team bringing together specialists in prices and national accounts, overseen by Mr. Mohammed Al Faraj, the country's ICP coordinator.

The team's statistical capacity has benefitted from the many workshop opportunities provided by UN-ESCWA, the regional implementing agency. Not only has GASTAT staff been able to share experiences with other countries, but they have participated in discussions on the verification and validation of data, leading to robust, reliable and timely results. The team also promotes the use and application of PPPs, particularly in analyses of poverty and well-being.

GASTAT is taking steps to integrate ICP processes with those of national accounts and the country's CPI. It is linking the specifications of food and clothing items that are common between both the CPI and the ICP and collecting those via the CPI program.

Finally, the team is grateful to UN-ESCWA and the ICP Global Office for their contribution to raising statistical awareness through several methods, most notably through newsletters.

#### South Africa

ICP activities in South Africa are conducted by the Price Statistics and National Accounts teams of Statistics South Africa (Stats SA), based in Pretoria. The price collection work is fully integrated into the ongoing CPI operations and has been since the 2011 ICP round. Stats SA provides price information on 585 products of which 369 form part of the national CPI basket. Prices for the additional products are collected in the three main urban areas of the country which contain the main economic centers.

When South Africa revamped its CPI in the mid 2000's, it was able to use ICP tools such as the structured product description (SPD) with its detailed item characteristics as part of the official CPI collection process. Data collection for additional ICP products continues to use existing CPI methods, and during 2017, the additional ICP price collection began. A photo catalogue was created and specifications for the products created on the CPI database. CPI price collection staff were trained on the characteristics of the new products, but ensuring a good match between the ICP descriptions and the availability of products in stores has been a challenge in some cases.

All CPI field staff in the three regions collect price data for the ICP and the data are captured into the CPI database. The final stage of the ICP work is to extract all the prices required for ICP, complete the data entry spreadsheet and run the ICP validation tool for the Africa region to identify any outliers. One staff member was assigned to coordinate the collection of ICP additional products and to run ICP validations.

In the past year, a new capturing and editing computer system has been implemented for the CPI. An important feature of the system is the standardization of product descriptions. This facilitates the calculation of average prices for varieties that are precisely the same. The advantage of this for the ICP is the ability to monitor and control for the specific characteristics required for international comparability.

#### Viet Nam

The Viet Nam ICP team's managers and statisticians are based in the Price Statistics and National Accounts departments of the General Statistics Office in Hanoi, while supervisors and price collectors are located throughout the provinces of Viet Nam. While the Director of the Price Statistics department, Mrs. Do Thi Ngoc, has been with the team since 2005, other members have come on board more recently.

The statisticians individually focus on data collection under the different GDP headings: household individual consumption; machinery and equipment; construction; government compensation; and housing rentals and volume. Over time they have accumulated a wide range of skills through collaboration, with the Asian Development Bank and the World Bank's ICP Global Office.

The ICP team also has responsibility for other price data collections, and the data requirement for the ICP necessitates a large volume of work. As a result, team members often work overtime and over weekends to meet the ICP deadlines. Additionally, the computing capacity at both central and local level is restricted and limited in software, which causes delays in processing.

However, in terms of statistical capacity building, the office has benefitted from expertise sharing with other countries, regional and national training and workshops, the provision of statistical technical assistance for the ICP, and two additional laptops and software. Collaboration between the ICP team and the GSO's survey department has helped to build a comprehensive price system and database, allowing comparisons within Viet Nam and with other countries. In terms of additional applications, the ICP team is calculating subnational PPPs for Viet Nam, based on the country's monthly consumer price index.

