

## Move from GDP to comprehensive indicator frameworks in Asia and the Pacific

**Too much focus on economic growth has come at costs of persistent inequality and rising environmental pressure in Asia and the Pacific. It is urgent to widen the measurement of progress from a single focus on GDP to comprehensive indicator frameworks. To achieve so, countries should enhance capacity of data producers and users to develop broader development indicators and to use them in policymaking. Cross-Government agency coordination is essential to use such indicators in an integrated approach to address development issues.**

### Too much focus on Gross Domestic Product (GDP) overlooks broader sustainable development

Economic policymaking in Asia-Pacific developing countries has long been focused on maximizing economic growth. Indeed, the region has been the engine powering global economic expansion since at least the start of the millennium. Such economic growth has created jobs, increased people's income and massively reduced extreme poverty.<sup>1</sup> However, persistent inequality<sup>2</sup> and increasing environmental degradation<sup>3</sup> threaten people's well-being and constrain the potential of future economic growth in the region.

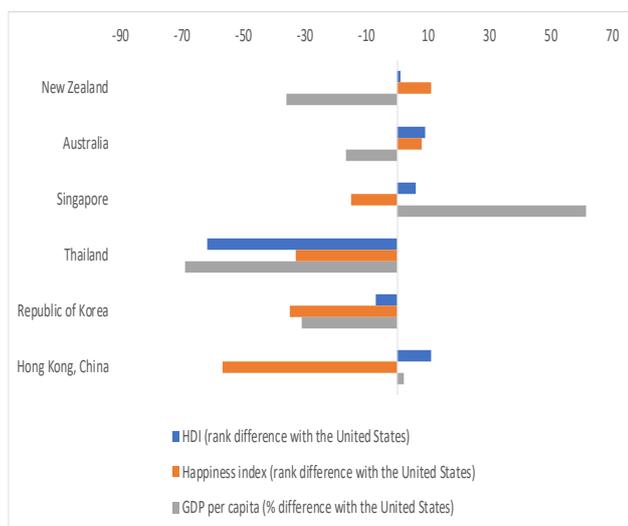
This is not surprising, as Simon Kuznets, who contributed to the formation of national economic science, warned in 1930s that *"the welfare of a nation can scarcely be inferred from a measurement of national income as defined"*. However, such warning has been ignored over time. GDP, which was designed as a measure of economic output, has been misrepresented as a measure of welfare or development. In reality, increased economic output does not necessarily translate into improved welfare or development progress (figure 1).

### Widen the measurement of progress from GDP to comprehensive indicator frameworks

In the journey towards sustainable development, an adjustment to the way that development progress is measured is urgently needed. This is because *"what we measure affects what we do"*, as Nobel laureate in economics Prof. Joseph Stiglitz (2018) states. If policies are only based on GDP, then the link between policies and short-termism is inevitable, because GDP measures economic output over a short period of time.

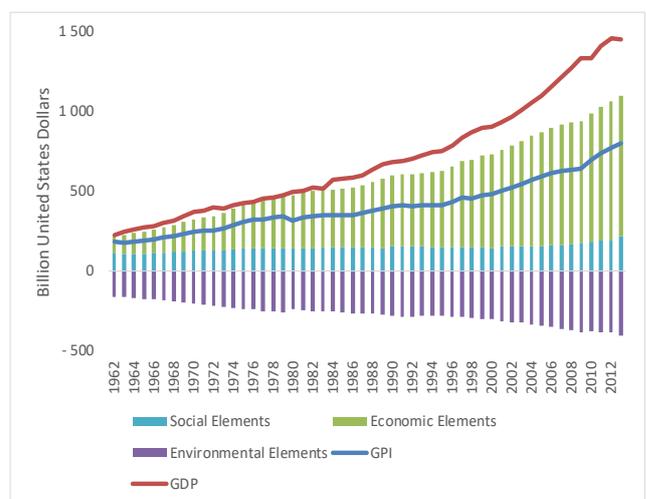
Many international organizations and countries, including the ones in the region, have made efforts to think beyond GDP. One example is the genuine progress index (GPI), which counts the depreciation of social capital as an economic cost while measuring the economic welfare generated by economic activity. Australia's GPI shows a modest but steady increase over time. However, the gap between GDP and GPI widens, mainly due to increasing negative environmental costs (figure 2). In addition, countries have also introduced indicators that assess well-being more directly than GDP, such as Hong Kong, China's Quality of Life Index<sup>5</sup> and Bhutan's Gross National Happiness (GNH) Index.<sup>6</sup> In particular, GNH has been placed at the heart of Bhutan's policy planning. All government projects

Figure 1. Comparing well-being indicators and GDP (in 2018) in select Asia-Pacific countries



Source: ESCAP calculation, based on UNDP, Human Development Index (access on 10 March 2020); IMF, World Economic Outlook Database (as of October 2019) (accessed on 10 March 2020); and Helliwell, J., Layard, R., & Sachs, J. (2019).

Figure 2. GDP and GPI comparison in Australia, 1962-2013 carbon price



Source: Kenny and others (2019).  
Note: GDP and GPI are in 2012 dollar prices.

and policies work are required to maximize GNH (Ura, Alkire, and Zangmo, 2012).

However, so far there is no international consensus on an alternative to GDP yet. Despite its limitations, GDP is simple in practice to understand, and can be used to calculate many macroeconomic measures to compare over time and across countries.

Therefore, a measurement revolution could start with not misusing GDP to assess welfare or development progress, but widening the measurement from a single focus on GDP to a list of comprehensive indicators or integrated measurement frameworks, such as the United Nations' Sustainable Development Goals indicators. Meanwhile, taking account the interlinkages between different indicators is crucial, as different aspects of development are closely connected. Such indicators could inform to maximize synergies in policy making and implementation.

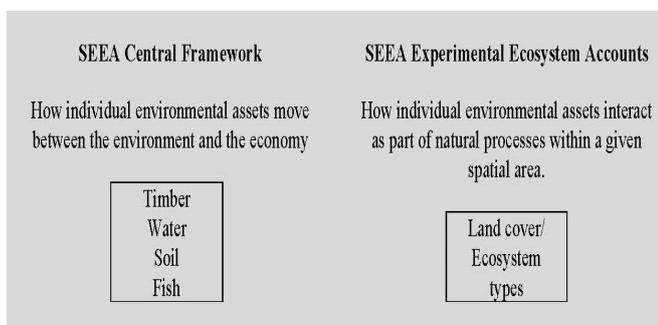
In particular, the region should consider introducing and implementing comprehensive indicator frameworks such as the Systems of Environmental-Economic Accounting (SEEA) (to address planetary health) and supplementing GDP with the distributional national accounts (DINA) (to address inequality), as well as integrating them in the policymaking process.

### The System of Economic Environmental Accounting (SEEA)

**What is SEEA?** SEEA is an international statistical standard that uses a systems approach to bring together economic and environmental information to measure the contribution of the environment to the economy and the impact of the economy on the environment.

SEEA uses a structure and classifications consistent with the national accounting system to facilitate the development of indicators and analysis on the economy-environment nexus. Its Central Framework brings together, in a single measurement system, information on water, minerals, energy, timber, fish, soil, land and ecosystems, pollution and waste, etc. The SEEA Experimental Ecosystem Accounting complements the Central Framework by considering how individual environmental assets interact as part of natural processes within a given spatial area (figure 3).

Figure 3. SEEA: Two different perspectives



Source: Alfieri, 2018.

**Development and the use of SEEA Accounts in Asia and the Pacific:** Countries in the region are developing their SEEA at different pace and prioritizing its different parts. As of end-2017, 14 countries from Asia and the Pacific indicated presence of an environmental-economic accounting programme.<sup>7</sup> Nine additional countries announced that they plan to implement a SEEA system<sup>8</sup> (United Nations, 2018). A few of them have published statistics of SEEA accounts and started to analyse them, including getting informed on progress, identifying geographic and sectoral hotspots of resource use and pollutant emissions (Australia and Fiji), estimating the value of environmental assets (Australia and New Zealand) and designing policy responses by introducing regulations or environmental taxes, or increasing expenditure on environment (Bhutan and New Zealand).

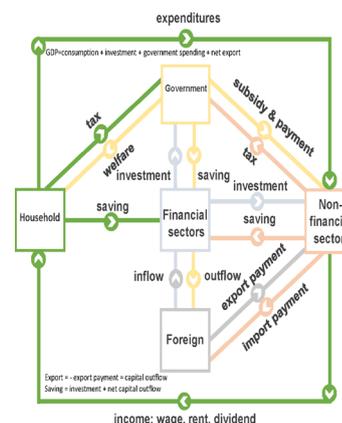
However, the use of SEEA data to inform policy making has been limited, due to issues including data availability, data quality and lack of interest by the users (Pirmana and others, 2019). But New Zealand has some experience. In 2018, New Zealand published its first SEEA report and started to use them to respond to policy needs. For instance, the updates to the fish, water and timber accounts have supported the Treasury's Investment Statement; the air emissions account has been used to inform modelling work for the transition to the low emissions economy; and the environmental tax account has been considered in policy work surrounding the redevelopment of New Zealand's tax system (United Nations, 2018).

### Distributional national accounts (DINA)

**What is DINA?** DINA records how income and wealth are distributed between income groups.<sup>9</sup> Given the persistent inequality in the region, publishing timely, standardized and universally recognized statistics is key to inform related policymaking. Indeed, the national accounting system traces how income is generated and flows across all sectors (see figure 4), but does not inform distribution between income groups.

**Development of DINA in Asia and the Pacific:** Since early 2000s a group of academics have pioneered constructing statistics of distribution of income and wealth by combining historical fiscal and national accounts data, which turned into World Inequality Database (WID) in 2015 (Alvaredo and others, 2016). As of January 2020, WID covers income or wealth inequality information for 13 countries in the Asia-Pacific region.<sup>10</sup> In addition, Australia has started to supplement GDP

Figure 4. Distribution income accounts in the national accounting system



Source: Agarwal (2010).

growth with new reports that disaggregate growth along income, age, and type of household (Boushey and Clemens, 2018). In the coming years, more countries are expected to take it up, because the next revision of the System of National Accounts, due sometime in 2022-2024, is like to consider how to cover distribution of income and wealth growth across the population (UNDP, 2019).

## Challenges to develop and effectively use comprehensive data frameworks

Many countries in the region are not yet ready to introduce more comprehensive indicators to plan for sustainable development. From the **data producers'** side, one major constraint is the lack of capacity to collect and reconcile timely and accurate data from different sources and set up structures. In addition, data collection and compilation also require financial resources to train professionals and maintain statistical platforms.

From the perspective of the **data users**, they may also lack capacity to interpret or analyze new data and communicate the analytical findings in a way which can be used by policymakers. Many economists, for example, are trained to conduct economic analysis in the framework of national accounting, but they are not familiar with social or environmental sustainability-related indicators, and lack expertise to link such indicators with economic policymaking.

Moreover, lack of sufficient communication between data producers and users leaves the former not informed what the latter requires in analytical or policy work, while the latter is not fully aware of the availability of new statistics.

Meanwhile, insufficient coordination among data users prevent comprehensive measures from maximizing their policy impacts. One example relates to curbing black carbon. Black carbon is one of the short-lived climate pollutants.<sup>11</sup> Given its small size, it is also a type of fine particulate matter (PM<sub>2.5</sub>) which affects human health. In cities, black carbon is usually formed during incomplete fuel combustion from vehicles. To curb black carbon to ensure its health and climate benefits requires collective analysis and policy coordination among climate, energy, health and transport professionals, which does not happen commonly.

## Policy recommendations

**Enhance capacity of data producers:** Countries should strengthen the capacity of national statistical systems to compile and report full range of development indicators through well-funded and resourced national statistical systems based on national priorities.<sup>12</sup> This also requires institutional arrangements to allow leadership role for the statisticians to have early and adequate engagements with various national stakeholders. Statistical decisions need to be brought into the political process of defining development goals, targets and indicators (Alfieri, 2013). ESCAP's Policy-Data integration tool, "Every Policy is Connected (EPIC)" (available at <https://epic.unescap.org>) can help on this front. EPIC uses existing national development plans and policies to identify data needs (Bidarbakhtnia, Ryan, and Serrao, 2019).

**Engage national and international stakeholders to develop development indicators and comprehensive indicator frameworks:** Whole-of-government and whole-of-society collaboration is essential for countries to collect and reconcile accurate, timely and comparable statistics.

In the case of developing distributional national accounts, for example, national statistical authorities ideally would produce rich annual household surveys of individuals' living conditions, and the tax administration would publish income and wealth administrative tax each year. Linking survey and tax data would inform how fiscal income reported in tax data connects with an individual who participated in the living conditions survey, which tracks income and wealth inequality. Meanwhile, participation of academia and civil society could improve transparency of inequality information. For example, journalists could release information on evaded taxes, which is subsequently analysed by researchers. Moreover, concerted global efforts are also critical, as large share of wealth is hidden offshore, which requires a proper international registration system to record them (UNDP, 2019).

**Enhance capacity and knowledge of data users:** When new data from comprehensive indicator systems are collected and published, it is the data users who take the final aggregation step to answer the question "what does this all mean?" Therefore, it is particularly important to equip them with knowledge about the new statistics, and how it can be linked with policymaking. To achieve so, governments can organize capacity training with support from international organizations, with real cases to demonstrate the relevance of new measures to ongoing policy processes. The demand for new measures depends on the degree that policymakers and other users see them as relevant to solving pressing development problems. Clearly spelling out the way the new indicators relates to specific policy changes is essential for increasing its uptake (EU, 2019). ESCAP's knowledge products such as the Economic and Social Survey of Asia and the Pacific<sup>13</sup> and the SDG Progress Assessment Report<sup>14</sup> use indicators beyond GDP to assess development progress in the region, which could serve as examples how the comprehensive development indicators can be analyzed and used in policymaking.

**Link comprehensive indicator frameworks with policymaking process:** With enhanced knowledge about comprehensive development indicators, countries should encourage and mandate policymakers to link them with ongoing policymaking process. For example, Bhutan and New Zealand have used SESA statistics to design policy responses, including introducing regulations or environmental taxes, or increasing expenditure on environment (Bhutan's National Statistics Bureau, 2018; New Zealand Government, 2018). Given comprehensive indicator frameworks encompasses a broad spectrum of economic, social and environmental aspects, cross-Government agency coordination should be an indispensable element to ensure integrated approaches that harness synergies and address trade-offs to address development issues.

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## Endnotes

1. About 1 billion people have been lifted out of extreme poverty since 2000 in the Asia-Pacific region. Source: ESCAP data portal (accessed on 4 December 2019).

2. The top 10 percent of income group take away half of the income in Asia. Such pattern has not been changed at least since 2000. Source: World Inequality Database (accessed 3 October 2019).

3. For instance, 97 out of the top 100 most air-polluted cities are located in the Asia-Pacific region in 2018 (Air Visual, 2018). PM<sub>2.5</sub> (fine particulate matter) emissions in most countries in the region exceed the WHO guideline. Source: UNSD SDG indicators, available from <https://unstats.un.org/sdgs/indicators/database/> (access 2 September 2019).

4. Australia's GPI includes 26 indicators across three categories: economic, environmental and social. For example, GPI subtracts the cost of crime and the costs of climate change (and the resulting degradation of natural capital)

while GDP adds them as positive contributions (Kenny and others, 2019).

5. Hong Kong, China has developed a “Quality of Life” Index since 2002, which captures more than 20 indicators covering health, social, culture and leisure, economic and environmental dimensions (CUHK, 2019). It is also developed into the Youth Quality of Life Index and the Elderly Quality of Life Index.

6. The GNH Index includes nine domains (with equal weight) such as psychological wellbeing, good governance, education and etc.

7. The 14 countries are: (1) Armenia, (2) Australia, (3) Bhutan, (4) Fiji, (5) Georgia, (6) Indonesia, (7) Malaysia, (8) Mongolia, (9) Nepal, (10) New Zealand, (11) Philippines, (12) Russian Federation, (13) Samoa, and (14) Turkey.

8. They 9 countries are: (1) Bangladesh, (2) China, (3) India, (4) Kazakhstan, (5) Kiribati, (6) Kyrgyzstan, (7) Pakistan, (8) Vanuatu, and (9) Viet Nam.

9. Gini coefficient is a common measurement to inform the degree of income inequality in a country. However, it can mask important evolutions of income distribution over time (Chancel, 2019), i.e. income distribution change may not necessarily lead to a change in Gini coefficient. Distributional national accounts can supplement Gini coefficient with such income distribution details.

10. The 13 countries include: Australia, China, India, Indonesia, Islamic Republic of Iran, Japan, Republic of Korea, Malaysia, New Zealand, Russian Federation, Singapore, Thailand, and Turkey.

11. Short-lived climate pollutants are powerful climate forcers that remain in the atmosphere for a much shorter period of time than carbon dioxide (CO<sub>2</sub>), yet their potential to warm the atmosphere can be many times greater.

12. *Advancing official statistics: A Collective Vision and the Framework of Action* by ESCAP (2017a) highlighted the importance of investment in statistics and skills for countries to adopt complementary measures to GDP.

13. For more information, please visit: [https://www.unescap.org/publications?f%5B0%5D=field\\_publication\\_series%3A9049](https://www.unescap.org/publications?f%5B0%5D=field_publication_series%3A9049).

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