Economic and Social Commission for Asia and the Pacific

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Policy issues for the Asia-Pacific region: theme topic for the seventy-fourth session of the Commission,
“Inequality in the era of the 2030 Agenda for Sustainable Development”

Inequality in Asia and the Pacific in the era of the 2030 Agenda for Sustainable Development

Note by the secretariat

Summary

The present document contains the main findings of the theme study, *Inequality in Asia and the Pacific in the Era of the 2030 Agenda for Sustainable Development*. It contains a review of the region’s inequality trends, the multifaceted challenges for sustainable development and policy gaps across the three types of inequalities: inequality of outcome; inequality of opportunity; and inequality of impact. The present document contains an assessment of the impact of technologies on inequality trends in the region.

The present document also contains a discussion of the potential impact of inequality on people, communities and countries, and it identifies key drivers of inequality. The present document contains a broad set of mutually reinforcing policies for reducing all forms of inequality for a more inclusive, prosperous and sustainable future for all.

Evidence drawn from data sources, analytical methods and case studies reveals mixed trends in income inequality among and within countries, but a clear increase at the regional level in terms of inequalities of income and wealth. Environmental degradation and disasters have a disproportionate negative impact on the most marginalized and vulnerable people, against a backdrop of high and persistent inequalities in access to basic services and the protection of fundamental rights. Depending on policy choices in each country, emerging technologies can either exacerbate inequalities or serve as a critical tool to close important development gaps.

The Economic and Social Commission for Asia and the Pacific may wish to review the issues and recommendations in the present document and provide the secretariat with guidance on and recommendations for its future work on inequality.
I. Introduction

1. The effective implementation of the 2030 Agenda for Sustainable Development, and especially its core pledge to leave no one behind, cannot be achieved without a better understanding of and ability to deal with all forms of inequality. High and persistent inequalities undermine the three dimensions of sustainable development by stifling economic growth, weakening social cohesion and solidarity and worsening environmental degradation. Inequalities also undermine human dignity and social justice, the foundation principles of human rights.

2. Over the past decades, policymakers in the Asia-Pacific region have endeavoured to enhance material well-being through rapid economic growth and wealth creation. The expectation was that over time, economic growth would lift people out of poverty and bring prosperity to the region. Indeed, significant overall gains on many social development indicators contributed to the region’s convergence with high-income countries. Yet the gains were unevenly distributed and the benefits for those left behind have not been as impressive. For example, nearly half of all people in Asia and the Pacific, or one third of the world’s population, still rely on traditional and inefficient fuels for cooking and heating. At the same time, environmental degradation has increased.

A. Why care about inequality?

3. Inequality stifles economic growth and poverty reduction. The economic cost of ignoring inequality is significant. Research demonstrates that countries with high inequality may experience lower economic growth and shorter periods of growth. In addition, high inequality can prevent economic growth from efficiently reducing poverty. In an economy where opportunities are unequally distributed, the benefits of economic growth may accrue to those at the top of the income distribution while bypassing large segments of the population who are employed in subsistence activities or who are struggling to make ends meet. Economies are most successful in reducing poverty if they generate earnings opportunities for those at the bottom of the income distribution.

4. Inequality undermines social cohesion and stability. High inequality weakens social bonds and undermines public trust in institutions. It is therefore a key factor contributing to rising levels of social and political tension and can even lead to radicalization and crime. A weak social contract in turn reduces the willingness of citizens to pay taxes, which contributes to the deterioration of basic public services and resources for marginalized groups. The perception of high and persistent inequality discourages those left behind and lowers their aspirations, leading to the acceptance and internalization of a lower status. The affected aspirations range from educational and occupational objectives to broader decisions around consumption or social identity.

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5. Inequality negatively impacts the environment. Societies with high levels of inequality show less support for public policies protecting the environment and regulating common goods, and inequality can lead to the so-called tragedy of the commons. Inequality in the ownership of land and natural resources can provide advantaged people with unchecked freedom to cut, mine and farm lands in ecologically unsustainable ways. Among disadvantaged people, social resentment, lack of education and a simple lack of options can also lead to the overuse of natural resources. Disadvantaged people are also more exposed to air and water pollution, but they are the least prepared to withstand shocks from extreme events, such as natural or human-caused disasters.

6. Inequality also shapes and reflects power dynamics within a society. While it may not be immediately visible to policymakers, the corrosive impact of daily images and reports of exclusion, injustice and marginalization contrast with images and reports of power, privilege and overconsumption. These images and the injustice they convey not only take a toll on ordinary individuals but also on societies, economies and the environment.

7. Against this backdrop, the Asia-Pacific region and the world are moving steadily into the fourth industrial revolution. The scale, scope and speed of this transformation could be unlike anything the region has experienced before. A key concern is that this revolution, especially the uptake, adaptation and distribution of benefits generated by frontier technologies, such as artificial intelligence, could magnify inequalities through anticipated losses of certain lower-skilled job categories.

B. Inequality and the Sustainable Development Goals

8. In September 2015 the world’s leaders gathered in New York to adopt the 2030 Agenda and the pledge to leave no one behind. At that time, the debate around inequality had already captured the world’s attention.

9. While the Millennium Development Goals represented global efforts to provide basic services to more people, the 2030 Agenda has a higher objective of reaching everyone, including the most marginalized. In addition to Sustainable Development Goal 10 (Reduced inequalities), the 2030 Agenda is permeated by a call for universality and a recognition that everyone should have equal access to fundamental opportunities in life.

10. With its impact on all three dimensions of sustainable development and strong links to almost every Goal, reducing inequality is at the centre of the 2030 Agenda.

11. Reducing all forms of inequality will be critical to deliver on the pledge to leave no one behind and reach the furthest behind first. Clearly, people in the Asia-Pacific region have not benefited in a fair and just way from economic growth and other development gains, and the conjecture that a rising tide lifts all boats has been discredited. The growth paradigm of grow now and clean up later has also created irreversible environmental damage. Achieving the Sustainable Development Goals by 2030 means placing people at the centre of regional, national and local development agendas, and requires stronger investments in people and the planet.

C. Defining inequality

12. The framework used in the theme study of the Economic and Social Commission for Asia and the Pacific (ESCAP), *Inequality in Asia and the*
Pacific in the Era of the 2030 Agenda for Sustainable Development, distinguishes between three broad types of inequalities: (a) inequality of outcome; (b) inequality of opportunity; and (c) inequality of impact or group-based inequality. The three types of inequalities are interdependent and mutually reinforcing.

13. Inequality of outcome refers to disparities among individuals in the material dimensions of human well-being, such as the level of income and wealth. Inequality of outcome primarily concerns economic inequality and is usually measured by either income or consumption.

14. Inequality of opportunity refers to unequal access to fundamental rights and services required for individuals to sustain and improve their livelihoods. Inequality of opportunity includes access to basic services and productive resources such as education, health care and nutrition, water and sanitation, clean energy, and information and communications technology (ICT), as well as finance and credit. Equal access to opportunity contributes to a level playing field and ensures that outcomes reflect an individual’s effort and choices.

15. Inequality of impact or group-based inequality refers to the asymmetric impact of external shocks on different groups and is often associated with systemic disparities between groups with shared circumstances. This type of inequality is often historically or culturally rooted and persists over generations because of discrimination or entrenched deprivation. Current trends, including migration and the migration of refugees, may also lead to group-based inequality, however, the focus of the present document is primarily on inequality of impact in relation to the environment.

16. Inequalities of outcome, opportunity and impact are interdependent and mutually reinforcing. An unequal playing field inevitably leads to disparate outcomes. Unequal outcomes in terms of income and wealth aggravate disparities in access to basic services and resources. For example, disparities in access to education and health care are often caused by economic inequalities and lead to gaps in skill levels and health outcomes. Those gaps, in turn, result in deeper income disparities. Prejudice, discrimination and social exclusion further reinforce inequalities of outcome and opportunity.

17. Natural disasters also exacerbate inequality between countries, as they have disproportionately greater impacts on poorer countries compared to high-income countries. Within countries, an asset loss of $1 causes a greater loss in well-being for poorer populations than rich populations and contributes to a recurring cycle of intergenerational poverty and inequality.\(^3\) Disasters particularly affect children’s well-being by reducing access to nutrition and causing withdrawals from school. In Pakistan, for example, primary school enrolment significantly dropped after the earthquake in 2005 and the floods in 2010 and 2011.\(^4\)

18. Technology is a key determinant of productivity and economic growth, and it is fundamental for low-income countries to catch up with more advanced ones. On the one hand, technology can reinforce income inequality because it favours educated and skilled workers and because innovators tend to capture

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II. Inequality trends in Asia and the Pacific

19. In the context of complex and mutually reinforcing factors contributing to inequality, countries in the Asia-Pacific region committed to implement the 2030 Agenda and pledged to leave no one behind. This section contains an overview of recent trends and the current status of inequalities of outcome, opportunity and impact to improve understanding of the challenges the region is facing to fulfil this pledge.

A. Inequality of outcome

20. Many countries of the Asia-Pacific region went through a considerable increase in income inequality between the early 1990s and the early 2010s, while other countries in the region went through a decline in income inequality. On average, represented by the population-weighted income Gini coefficient, inequality in the region increased by approximately five percentage points during that period, from 33.5 to 38.4 (figure I). Although income inequality remains lower in Asia and the Pacific compared to other regions of the world, the trend in the region towards inequality is contrary to the trend in other regions where inequality declined.\(^5\)

Figure I

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21. The increase in income inequality in the Asia-Pacific region was mainly driven by the most dynamic and populous countries, including China, India and Indonesia, which all experienced high economic growth and urbanization, leading to an increasing income divide and capital accumulation (figure II). In China alone, the Gini coefficient jumped by almost 10 percentage points in the past 20 years, while the corresponding increases were 8 percentage points in Indonesia and 4 percentage points in India. The overall picture, however, is mixed. Approximately 40 per cent of the countries for which data are available had an increase in income inequality, while the others had a reduction, often from very high levels. For instance, inequality decreased sharply in Azerbaijan, Kyrgyzstan and Maldives.

Figure II


Source: ESCAP, Inequality in Asia and the Pacific in the Era of the 2030 Agenda for Sustainable Development (forthcoming).

Note: Labels next to the bars show each country’s average income Gini coefficient for the period 2010–2014. The Gini coefficient of each country was calculated as the simple average of the available Gini coefficients within each five-year period (1990–1994 and 2010–2014) or the available year within the period.
22. In North and Central Asia, six of the nine countries for which data are available recorded an average drop in the Gini coefficient of 11.4 percentage points. As a result, in the period 2010–2014, the subregion had one of the lowest levels of population-weighted income inequality compared to other subregions, with an average Gini coefficient of 38.3. In South-East Asia, the picture is mixed, with increasing income inequality in countries such as Indonesia and Singapore and decreasing income inequality in other countries such as Malaysia and Thailand. On average, however, the population-weighted Gini coefficient increased from 32.6 to 39.1 in the subregion. South and South-West Asia also saw mixed developments, with increasing income inequality in Bangladesh, India and Sri Lanka, while the Islamic Republic of Iran, Pakistan and Turkey had relatively small reductions in inequality, for a subregional average increase from 32.1 to 34.8. In East and North-East Asia inequality increased in China, Japan and the Republic of Korea, but decreased in Mongolia, for a subregional average increase from 33 to 41.9. In the Pacific, 6 of the 10 countries for which data are available experienced an average drop in the Gini coefficient of 3.4 percentage points; however, income inequality increased in Australia, New Zealand and Papua New Guinea, and the average for the subregion edged up from 45.3 to 49.1.

23. Income and wealth inequalities are related. Because wealth is based on the accumulation of past savings, and because rich people typically save more than poor people, increases in income inequality tend to bring about even larger increases in wealth inequality. The concentration of wealth in turn can lead to further unequal distribution of income. For example, income and wealth concentration can give rich people disproportionate political influence to hinder public policies that are needed to mitigate inequalities, such as tax policies and policies to increase income security for poor people.

24. In Asia and the Pacific, steep increases in the incomes of the richest people have often coincided with an increased concentration of wealth. For instance, between 1992 and 2016, the share of income of the top decile increased from 32 to 41 per cent in China, and from 33 to 55 per cent in India. Similarly, the wealth share of the top 1 per cent doubled between 1995 and 2015, from 15 to 30 per cent in China and from 22 to 43 per cent in the Russian Federation. In 2017, the net worth of the region’s 846 billionaires was more than seven times higher than the combined gross domestic product (GDP) of the region’s least developed countries.

B. Inequality of opportunity

25. Income and wealth inequalities are also strongly linked to other dimensions of development, with obvious impact on opportunities such as access to education, health care, finance, clean energy and water and sanitation. While some level of income inequality is both acceptable and expected to reflect differing levels of individual effort and talent, no inequality in access to these opportunities should be permissible in countries aspiring to the commitments and implementation of the 2030 Agenda.

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26. Yet, a comparison of country-specific dissimilarity indices of 13 core opportunities across 21 countries with available data revealed large inequalities, particularly in educational attainment and household access to a bank account, clean fuels and basic sanitation. Like the Gini coefficient, the dissimilarity index uses values from 0 to 1 with 0 representing perfect equality and 1 representing maximum inequality. The ideal value on the dissimilarity index is 0, meaning everyone has access to opportunity.

27. The highest overall values on the dissimilarity index are found in South and South-West Asian countries, followed closely by South-East Asian countries. In both subregions, the opportunities that stand out as most unequal are household access to clean fuels, individual attainment of secondary and higher education, and household access to a bank account. Access of individuals to full-time employment is particularly unequal in South-East Asia and North and Central Asia. For East and North-East Asia, data were only available for Mongolia, with household access to sanitation being the most unequal opportunity, followed by household access to clean fuels. In the Pacific, data were only available for Vanuatu, where household access to electricity and clean fuels were particularly unequally distributed (table 1).

Table 1
Disparities in access to key opportunities in selected countries in Asia and the Pacific

<table>
<thead>
<tr>
<th>Country</th>
<th>Household-based</th>
<th>Individual-based</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Energy</td>
<td>Financial inclusion</td>
</tr>
<tr>
<td></td>
<td>Bank account</td>
<td>Clean water</td>
</tr>
<tr>
<td></td>
<td>Safe sanitation</td>
<td>Multiple deprivation</td>
</tr>
<tr>
<td></td>
<td>Not stunted</td>
<td>Not wasted</td>
</tr>
<tr>
<td></td>
<td>Professional help in childbirth</td>
<td>Modern contraception</td>
</tr>
<tr>
<td></td>
<td>Secondary education</td>
<td>Higher education</td>
</tr>
<tr>
<td></td>
<td>Full-time employment</td>
<td></td>
</tr>
<tr>
<td>Afghanistan</td>
<td>0.08</td>
<td>0.13</td>
</tr>
<tr>
<td>Armenia</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>0.18</td>
<td>0.11</td>
</tr>
<tr>
<td>Bhutan</td>
<td>0.18</td>
<td>0.12</td>
</tr>
<tr>
<td>Cambodia</td>
<td>0.37</td>
<td>0.28</td>
</tr>
<tr>
<td>India</td>
<td>0.07</td>
<td>0.05</td>
</tr>
<tr>
<td>Indonesia</td>
<td>0.02</td>
<td>0.03</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Lao People’s Democratic Republic</td>
<td>0.16</td>
<td>0.03</td>
</tr>
<tr>
<td>Maldives</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Mongolia</td>
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<td>0.13</td>
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<tr>
<td>Myanmar</td>
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<tr>
<td>Pakistan</td>
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<td>0.18</td>
</tr>
<tr>
<td>Philippines</td>
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<td>0.13</td>
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<tr>
<td>Tajikistan</td>
<td>0.00</td>
<td>0.16</td>
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<tr>
<td>Thailand</td>
<td>0.00</td>
<td>0.05</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>0.17</td>
<td>0.12</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>0.00</td>
<td>0.02</td>
</tr>
<tr>
<td>Vanuatu</td>
<td>0.02</td>
<td>0.05</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>0.00</td>
<td>0.33</td>
</tr>
</tbody>
</table>


A total of 13 opportunities critical for human well-being are used in the analysis of the 21 countries for which data were available. The opportunities used are (1) attainment of secondary education for age 20–35 years; (2) attainment of higher education for age 25–35 years; (3) prevalence of stunting (age 0–5 years); (4) prevalence of wasting (age 0–5 years); (5) prevalence of overweight (age 0–5 years); (6) women’s access to modern contraception; (7) women’s access to professional help during childbirth; (8) access to full-time employment; (9) household access to basic drinking water services; (10) household access to basic sanitation services; (11) household access to electricity; (12) household access to clean fuels; and (13) household access to a bank account.
Note: No shading is given to values in the lowest third of the distribution, grey shading indicates the middle third and black shading indicates the highest third. The column on multiple deprivation combines the five household-based opportunities.

28. These opportunity-related inequalities can be further depicted by averaging the dissimilarity indices for individuals and households by country (figure III). From this exercise, the countries that stand out as particularly unequal with respect to core opportunities are Afghanistan, Bangladesh, Cambodia, the Lao People’s Democratic Republic, Myanmar, Timor-Leste and Vanuatu.

Figure III

Inequality of opportunity in selected countries in Asia and the Pacific


Abbreviation: ENEA, East and North-East Asia.

Note: The value for each country is a simple average of the dissimilarity indices of opportunities listed in table 1 apart from opportunities related to child nutrition because data were not available for all countries.

C. Inequality of impact

29. Environmental degradation is closely linked to inequality. There is clear evidence that low-income countries of the region are more exposed to inequality of environmental impact and degradation. One such example is air pollution, which is estimated to claim over 5 million lives per year in the region; mainly in developing countries.\(^9\) In addition to the detrimental impact this has on

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families and communities, it also has a negative impact on GDP, ranging from a reduction of approximately 0.8 per cent in India and Pakistan to 1.5 per cent in Afghanistan. Hence, reducing pollution is critical for reducing inequalities both within and among countries.

30. Compared to 1990, the mean annual exposure to air pollution has been on the rise in the region, with the sharpest increase observed in South and South-West Asian countries (Bangladesh, Bhutan, Nepal and India) and East and North-East Asian countries (China and Mongolia).\textsuperscript{10} At the same time, evidence from the region shows that poor and disadvantaged groups are more severely impacted by pollution than other groups. A study in Shanghai, China found that deaths from cardiorespiratory diseases, which are closely related to exposure to air pollution, were more likely among residents with no education or only primary educational attainment compared to those with a middle school education or above.\textsuperscript{11} A study of Jiangsu Province, China found that townships with a higher percentage of rural migrants were more likely to have higher levels of air pollution.\textsuperscript{12} A recent review in India concluded that low-income households were more exposed to higher levels of air pollution compared to households with higher median incomes.\textsuperscript{13} Studies in Viet Nam have found that respiratory illnesses were twice as common in low-income households as in high-income ones.\textsuperscript{14}

31. Natural disasters also cause disproportionately greater impacts on low-income countries compared to high-income countries, and therefore exacerbate inequalities between countries but also between rich and poor people. Low- and middle-income countries have mortality rates from disasters that are four to five times higher than those in high-income countries. Climate change magnifies the risk of disasters and increases their costs. As the climate system has warmed, the number of weather-related hazards globally has tripled, and the number of people living in flood-prone areas and cyclone-exposed coastlines has doubled, and the trend is expected to increase.\textsuperscript{15}


32. Climate change has a disproportionally high impact on rural residents, but also on marginalized groups in urban areas and households with lower incomes. Urban communities with lower socioeconomic status can be especially exposed to the risks of floods and landslides since disaster-prone land is often more affordable or the only land available. Urban areas are also strongly affected by extreme heat waves, aggravated by the urban heat island effect. People without access to air-conditioning, who need to spend many hours outdoors for work and who have limited access to water are thus more affected.

33. Despite the disproportional impact of environmental degradation, climate change and natural disasters on poor and vulnerable people, there have been few attempts to systematically quantify and analyse trends in inequality of impact over time due to the lack of disaggregated data. The combined dissimilarity indices by country on household access to clean fuels, water and sanitation present a proxy measure of how countries perform on those three environment-related opportunities (figure IV). The ranking and performance of countries closely follow figure III, suggesting a close association between inequalities of opportunity and impact in the region.

**Figure IV**
*Inequality of access to clean fuels, water and sanitation in selected countries in Asia and the Pacific*

![Graph showing inequality of access to clean fuels, water and sanitation in selected countries in Asia and the Pacific.](image)

*Source:* ESCAP calculations based on Demographic and Health Survey and multiple indicator cluster surveys data, latest years (see figure III).

*Note:* The value for each country is a simple average of the dissimilarity indices for household access to clean fuels, water and sanitation.

D. **Interaction of different dimensions of inequality**

34. The interaction between inequalities of outcome, opportunity and impact varies across the very diverse countries of the region, as indicated by the position of selected countries in each of the four quadrants of figure V. The countries are plotted according to the dissimilarity index average and the Gini
The development patterns of low-income countries, many of which are also least developed countries, are leading them into an inequality trap of high inequalities of income and opportunity, as depicted in the upper right quadrant of figure V. Most of these countries are in South-East Asia and the Pacific, including the Lao People’s Democratic Republic, Myanmar, Papua New Guinea and Vanuatu, while two of these countries are in South Asia, namely Bhutan and Nepal. Because of the shift from primarily agriculture-based economies to manufacturing and services, large increases in income often accrue to those who introduce new economic activities characterized by higher labour productivity. At the same time, these countries also have higher inequality of opportunity because of inadequate spending on public services. Specifically, their tax base remains narrow and they rely on indirect and often regressive taxes, rather than on direct and progressive taxation. This in turn adversely affects the fiscal space to invest in education, health care and other basic social services.

Figure V

Inequality and disaster risk profiles of selected countries in the Asia-Pacific region

Source: Dissimilarity index: ESCAP calculations based on Demographic and Health Survey and multiple indicator cluster surveys data, latest years (see figure III); Gini coefficient: Inequality in Asia and the Pacific in the Era of the 2030 Agenda for Sustainable Development (forthcoming).

Notes: Dissimilarity index values for Azerbaijan, China, Fiji, the Islamic Republic of Iran, Nepal, Papua New Guinea, the Russian Federation, Sri Lanka and Turkey were calculated using ordinary least squares with data on access to electricity, water and sanitation. The quadrants are split at Gini coefficient 36.7 and dissimilarity index 0.2. Natural disaster risk based on World Risk Index: low and medium (up to 7.35); high (7.35+). Azerbaijan and Papua New Guinea have been rescaled for clarity.

Countries in the lower left quadrant of figure V have relatively lower inequalities of outcome and opportunity, such as Fiji and India. Most of the

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16 An example would be when a mineral mine is developed in a mainly agrarian country. The value of the new mineral production per worker will greatly exceed the value of agricultural production per worker. As a result, income distribution will become skewed, with a large concentration accruing to the owners of the mine.
countries are located in North and Central Asia, and while some of them are also low-income countries (Kyrgyzstan and Tajikistan), their inequality of opportunity is very low because of the historically strong provision of universal social protection and basic public services. In recent years, many of these countries have reduced income inequality, especially Armenia, Kazakhstan, Kyrgyzstan and Tajikistan.

37. The lower right quadrant of figure V depicts mostly upper middle-income countries, such as China, Maldives, the Russian Federation and Turkey, but also some lower middle-income countries such as the Islamic Republic of Iran, the Philippines, Thailand and Turkmenistan. These countries have above average income inequality, although inequality has declined marginally in some of them. In general, these countries have prioritized investment in public services and as a result they have a more equal distribution of opportunity.

38. The upper left quadrant of figure V depicts some countries in South and South-West Asia, including Afghanistan, Bangladesh and Pakistan, and two in South-East Asia, namely Cambodia and Timor-Leste. All of these countries have relatively higher inequality of access to opportunity, but lower income inequality, although it is increasing. As with the countries in the upper right quadrant, some of these countries are transitioning from agricultural-based economies to manufacturing and services. Most countries in the upper left quadrant, particularly Bangladesh and Cambodia, also face special challenges from conflict or recurring natural disasters.\(^7\)

39. In general, countries that are more vulnerable to natural disasters, indicated by dots in figure V, have higher inequality of opportunity, higher income inequality or both. Vulnerable and marginalized people in those countries not only face a higher risk of being affected by a natural disaster, but they also face compound challenges of lower access to basic services. Hence the inequality of impact is more severe.

40. Natural disasters often contribute to widening income gaps, as floods, droughts and landslides have a greater impact on poor people and those most affected by alternative livelihood opportunities.\(^7\) The impacts of climate change are expected to intensify in the future, and it is likely that they will intensify in “hotspots” that have higher concentrations of vulnerable, poor or marginalized people.\(^8\)

41. The mean annual exposure to air pollution has risen in the region since 1990.\(^9\) Afghanistan, Bangladesh, Bhutan, China, India, the Islamic Republic of Iran, Myanmar, Nepal, Pakistan and Tajikistan have the highest levels of air pollution in the region. These countries can be found across all quadrants of figure V, thus the common threat of air pollution requires strategies to particularly protect poor and vulnerable people as a means of fighting inequality.

42. Technological advances further complicate these interactions. For example, access to digital technology broadens access to opportunities. Therefore, countries with high access to digital technology show lower levels
of inequality of opportunity, however, these countries also show both low and high income inequality.

III. What causes inequality?

43. Overall, complex forces as diverse as governance structure, technological advancement, climate change and entrenched individual or group-based circumstances contribute to conditions of inequality in the region. The challenges that result from these forces would not be unsurmountable if strong institutions were in place. However, in addition to a weak institutional context, the interplay of political and economic power at the highest level reduces the incentives for actions to reduce inequality.

A. Global and national drivers of inequality

44. While international trade and foreign direct investment are key means of implementing the 2030 Agenda, they may also contribute to increasing inequality. For example, the Asian tigers became leaders in trade and investment but they also had an increase in inequality of income and wealth. Recent analysis in Asia and the Pacific finds that this outcome is avoidable, and that trade and investment liberalization can even be expected to marginally reduce income inequality. However, trade and investment liberalization tend to create winners and losers as economies grow and resources are reallocated across countries and sectors. This is particularly the case for the services sector, where job creation tends to be concentrated.

45. Trade liberalization policies should be accompanied by retraining and redeployment policies to enable workers from low-productivity sectors to adjust and move to other sectors. Trade and foreign direct investment facilitation measures aimed at simplifying procedures, as well as good governance, are necessary for reducing inequality and achieving sustainable development.

46. The development of enterprises requires access to financial services, a strong educational foundation, risk-taking and entrepreneurship. The success of enterprises also depends on political advantage and access to accumulated wealth. Hence, becoming a successful entrepreneur is often limited to people who are more privileged.

47. However, enterprise development can be fostered by facilitating access to financial services, improving the skills base through investments in capacity-building and harnessing enabling technologies such as e-commerce. Fostering women’s entrepreneurship, including through the provision of venture capital and technology, could be an important pathway for addressing inequality.21


48. Among all the variables examined in household surveys, most of the inequality for many opportunities is explained by the place of a household or an individual in the wealth distribution. Wealth is an undisputable proxy for many other social, economic and environmental conditions. The importance of wealth in determining inequality of opportunity therefore confirms that disadvantages are intertwined and it emphasizes the inequality trap: inequality of outcome (wealth) has a direct bearing on inequality of opportunity.

49. A case in point is the rise of the real estate sector with its recent substantial increases in prices, or asset bubbles, which is partly explained by the rise of the middle class and the lack of mature financial markets. Where there is a low level of development of financial markets, there are few opportunities for investment, which contributes to an increase in the demand for real estate investments. The rents of landowners and the profits of developers, construction companies, realtors and banks lead to a concentration of both income and wealth.

50. The relationship between technology and inequality is also multifaceted. Technology has enabled several Asian developing countries to catch up with developed countries and it has contributed to major breakthroughs in providing the poorest people with access to basic services. For example, solar technologies for the home have provided access to electricity to millions of households in Bangladesh. India is using biometric identification numbers (Aadhar) for more efficient delivery of subsidies and public services to poor people. Online e-commerce platforms have helped small producers to sell their products worldwide and develop new markets in rural areas. Financial technologies are enabling financial inclusion at unprecedented rates. Technologies have also supported movements for democracy and social justice, such as the #MeToo social media campaign against sexual harassment and assault. Technology is providing solutions to prevent and mitigate environmental hazards that often disproportionately affect poor people.

51. Technology also may cause an increase in inequality, however, because countries differ in terms of technological capability and are thus not in an equal position to improve productivity and economic growth. Furthermore, technology may increase inequality because it is skill- and capital-biased and

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22 The wealth index used for this analysis is a composite index reflecting a household’s cumulative living standard developed by researchers working on the Demographic and Health Survey project funded by the United States Agency for International Development and at the United Nations Children’s Fund’s multiple indicator cluster survey.


enables rent seeking. Finally, technology requires certain conditions to be in place for vulnerable populations to benefit from technology, including ICT infrastructure, skills and access to appropriate technology solutions.

52. Technological progress is generally desirable as it brings economic growth and opportunities to address critical social and environmental concerns. Yet, it can create and reinforce inequalities of outcome and opportunity with implicit results for the environment. Frontier technologies, including automation, artificial intelligence, big data and advances in biological and environmental sciences, are likely to intensify inequalities of outcome and opportunity in the region because technological capabilities are not equally distributed across countries and people. Inequalities may also increase if jobs are lost in export-oriented labour-intensive industries in developing countries.

53. The persistent digital divide in the region is particularly worrisome. For instance, in 2016, in 18 countries in the region, there are fewer than 2 fixed-broadband subscriptions per 100 inhabitants, compared to more than 40 in the Republic of Korea. Reliable and resilient broadband networks are often the foundation for developing and using frontier technologies such as artificial intelligence. However, the lack of such broadband networks in many parts of the region means that artificial intelligence uptake is and will continue to be uneven.26

54. Environmental degradation, in the form of pollution, and climate change have a disproportionately higher impact on poor and disadvantaged people and thus exacerbate inequalities within and among countries.

55. The impact of environmental degradation can be calculated by studying the value of the natural capital27 of a country (comprising the value of agricultural land, forest and protected areas) and particulate emission damage caused by air pollution.28 Analysis shows that income inequality falls as countries expand their per capita natural capital, and a reduction of the per capita value of natural capital worsens income inequality. It also shows that rising particulate emission damage can hamper earning potential and increase inequality.

56. The results point to two important ways environmental degradation exacerbates income inequality in developing countries. First, deforestation and land degradation worsen inequality by affecting the livelihoods of poor people. Second, the pernicious health impact of pollution has a disproportionate impact on poor people as they are more exposed to pollution and have few means to

28 Particulate emissions damage is the damage due to the exposure of a country’s population to ambient concentrations of particulates measuring less than 2.5 microns in diameter (PM2.5), ambient ozone pollution and indoor concentrations of PM2.5 in households cooking with solid fuels. Damages are calculated as foregone labour income due to premature death. For more details, see the World Bank, World development indicators database. Available from http://databank.worldbank.org/data/reports.aspx?source=2&type=metadata&series=NY.ADJ.DPEM.CD (accessed 2 March 2018).
protect themselves. The health impact of pollution further reduces their income earning potential.

57. Natural disasters are another important driver of inequalities in the region.\textsuperscript{18} The increased frequency, intensity and impact of natural disasters in combination with the mismanagement of natural resources are therefore likely to heighten the risks of conflicts, which fuel further inequalities.\textsuperscript{29}

58. The role of the rule of law and good governance cannot be overemphasized. The quality of governance, transparency and institutional arrangements have a vital impact on many outcomes for society, people and the planet, including environmental governance, tax collection and priorities for how basic services are delivered and fundamental rights are protected.

B. Individual circumstances that increase inequality

59. On the individual and household levels, education is responsible for much of the observed inequality of opportunity, as revealed by data from household surveys in 21 countries. A mother’s education is prominent in determining her child’s nutrition status and is the most important factor in Bangladesh, Bhutan and Pakistan. The critical role of women’s education is illustrated in figure VI, which shows a lower likelihood of stunting among children whose mothers completed secondary education. Education is also very important in determining access to full-time employment. For example, in Afghanistan, only 9 in 100 people with primary or secondary education have access to full-time employment, which is a quarter of the access rate of people with tertiary education.

Figure VI
Reduction in odds of stunting among children of educated women compared to children of women with no education, selected Asia-Pacific countries

Source: ESCAP calculations based on Demographic and Health Survey and multiple indicator cluster surveys data, latest years (see figure III).

Note: Results are based on country-specific logistic regressions. Only countries with statistically significant coefficients and odds-ratios are shown.

60. Gender norms are also behind much of the inequality in access to resources and opportunities. In fact, the bulk of inequality in access to full-time employment is explained by gender more than any other factor, including education. The impact of gender on secondary and higher educational attainment is also striking, although it varies between countries. In North and Central Asian countries and in some South-East Asian countries, women are between 20 and 120 per cent more likely than men to complete secondary education, while in other South-East Asian countries and most South-West Asian countries women are between 20 and 80 per cent less likely than men to complete secondary education.

61. Women often bear the brunt of environmental degradation and damage. In many disasters, a high proportion of the victims are women. This disproportional impact is due to limits on their access to information, financial services, land and property rights, health services and education. Those structural disadvantages reduce their resilience to disasters.18

62. Residing in a rural area reduces the chances of obtaining a secondary education by 50 per cent or more and limits access to a decent job. For example, in Nepal, only 5 in 100 rural women have access to full-time employment compared to a quarter of urban women. Residing in a rural area is also linked
with reduced access to various household-level opportunities, particularly water and sanitation, electricity and clean fuels.

C. Winners and losers

63. While the top 10 per cent, or the elite, in many countries forge ahead, the middle class is trying to catch up and others are falling behind. Looking at total income growth by percentile in India, for example, the share of the top 0.001 per cent in national income has been rising since the early 1980s and has grown by more than 2,700 per cent, a pattern repeated in many other countries. In the Russian Federation, the bottom 90 per cent has not seen much of an income increase since 1989. Clearly, people with access to resources, political power and education have benefitted disproportionally and are part of the region’s elite.

64. Knowing the common circumstances of the groups at both the low and high ends of the spectrum of access to opportunities is critical for policymakers to design programmes and introduce redistributive measures (table 2).

65. The most common shared circumstance of the furthest behind households and individuals is lower education, defined as primary or no education. The next most common circumstance is belonging to the bottom 40 per cent of the national wealth distribution. Households in rural areas are more likely to be furthest behind with lower access to basic services. Women are more likely to be furthest behind, as are younger and older people. People in these categories are also disproportionately exposed to higher rates of environmental degradation, including air pollution.

66. The shared circumstances of the furthest ahead households in terms of access to opportunities is belonging to the top 60 per cent of the wealth distribution, followed by having a household member with at least secondary or higher education. For individuals, the most common circumstance after belonging to the top 60 per cent of the wealth distribution is having secondary or higher education and being male.

Table 2

<table>
<thead>
<tr>
<th></th>
<th>Furthest behind</th>
<th>Count (times)</th>
<th>Furthest ahead</th>
<th>Count (times)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circumstances</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bottom 40 per cent of wealth distribution</td>
<td>80</td>
<td>Top 60 per cent of wealth distribution</td>
<td>69</td>
<td></td>
</tr>
<tr>
<td>Lower and primary education</td>
<td>74</td>
<td>Secondary and higher education</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>63</td>
<td>Male</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Living in a rural area</td>
<td>42</td>
<td>Living in an urban area</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Age 15–24</td>
<td>33</td>
<td>Age 25–49</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>16</td>
<td>Female</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Age 50–64</td>
<td>14</td>
<td>Age 15–24</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

Source: ESCAP calculations based on Demographic and Health Survey and multiple indicator cluster surveys data, latest years (see table 1).
The profiles of those furthest behind and ahead are nuanced and they also vary from country to country depending on the resource or opportunity considered. Together they make a strong case for policy interventions that target specific disadvantaged groups by supporting human capital development and protection against risks.

IV. Conclusions and future direction

Over the past two decades, the Asia-Pacific region experienced an average increase in inequalities of income and wealth. While North and Central Asian countries saw a reduction in income inequality, other countries witnessed an increase, in particular South Asian countries. The steepest increases took place in China, Indonesia, Papua New Guinea, Singapore, Sri Lanka and Uzbekistan, with increases in a range of 7–10 percentage points. In many of these countries, the increase in income inequality was coupled with a higher concentration of wealth among the already rich.

Economic growth alone will not help to reduce inequalities of income and wealth. Tackling high inequality will require fiscal policy interventions to support progressive investment in essential public programmes, such as health care and education. To this end, effective governance will be needed to boost overall tax compliance and improve the composition and efficiency of public expenditures. Similarly, reforming tax structures to reduce their adverse impact on poor people will require progressive taxes on personal income, property and wealth. Such taxes can also help prevent excessive concentrations of wealth and power in the hands of a few, while ensuring greater equality of opportunity for all, across generations.

Employment policies that encourage decent job creation are needed in countries where the labour force is predominantly informal. The creation of decent jobs would not only build a more productive and healthy workforce, which is critical for economic growth and closing development gaps, but also support economic and social stability. The abundance of vulnerable employment and low-skilled occupations is a manifestation of existing inequality and contributes to discouragement, social exclusion and marginalization.

Inequality of opportunity undermines human dignity, social justice and human rights; thus enhancing equality is at the forefront of the 2030 Agenda. The opportunity-related inequalities in the region are greatest in access to secondary or higher education, clean fuels, full-time employment, and access to a bank account and basic sanitation. Countries such as Afghanistan, Bangladesh, Cambodia, the Lao People’s Democratic Republic, Myanmar, Timor-Leste and Vanuatu have particularly great inequality of access to those core opportunities and also have the lowest overall rates of access. The divide between rich and poor people may increase levels of crime and undermine stability, as high and persistent inequality weakens bonds of solidarity and public trust.

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72. It is therefore critical to not only extend overall access to opportunities, but to also make sure basic services reach everyone, particularly the groups who are the furthest behind. Social protection policies are central to closing these gaps, while also increasing prosperity, resilience and empowerment. Expanding social protection to low-income families through cash transfers or other income-support mechanisms could also have strong multiplier effects as low-income families tend to spend their extra income on domestic goods and services.

73. Urbanization in the region is also continuing at an unprecedented pace and scale. With more than a quarter of the region’s urban population, or more than 880 million people, currently living in slums, there is an urgent need for new investments in services, including water, electricity, waste and sanitation, in affordable transportation options and in appropriate and dignified housing while preserving the ecosystem and biodiversity.

74. The environment, urbanization and climate-induced disasters are often missing from the policy debate on fighting inequality. Depending on policies in place, these factors can either alleviate or exacerbate existing inequalities. Reducing inequalities of income and opportunity requires better conservation of natural capital. It also requires protecting the environment by controlling pollution, ensuring that polluters pay for environmental damages and, most importantly, taking targeted policy measures to reduce the exposure of poor people and other the vulnerable groups to various forms of pollution and the impact of disasters. Bringing national policymaking into an overarching framework will therefore be paramount.

75. To an increasing extent, technologies can either exacerbate or curb inequalities. More advanced countries, often early adopters of frontier technologies, must manage the impact of technological transitions on inequality. Middle-income countries should focus on upgrading technological skills and ensuring that technological progress is inclusive. The priority for low-income countries is to build their technological capabilities to spur economic growth and focus on the adoption, the adaptation and the diffusion of existing technologies. The development of broadband infrastructure is particularly important for technological development and bridging the digital divide.

76. Tackling all forms of inequality requires national policymaking to redress discriminatory practices and unjust distributions of power, opportunities and resources that degrade the environment, undercut human dignity and impede future technological progress. This requires deeper interdisciplinary research and data collection to map out the groups of people who have been left behind, including those most exposed to pollution and environmental degradation.

77. In a region as diverse as Asia and the Pacific, there is no single solution to curb high and increasing inequality. Because of the diversity of inequality and its impact, policy reforms need to be guided by multisectorial and multi-stakeholder involvement at all stages from development and design to implementation and monitoring. Limits on expanding fiscal space for


investments in people and the planet are often more connected to political will than lack of resources. However, simply allocating more public resources without reforming fundamental governing principles may not have the desired impact.

V. Matters for the consideration of the Commission

78. The Commission is invited to review the issues and recommendations in the present document and provide the secretariat with guidance for its future work on inequality, including the identification of regional priorities and of areas for future research as well as of policy support and capacity-building needs.