

Chapter 2

Addressing Inequality of Opportunity in Asia and the Pacific





While the aggregate costs of inequality of outcome can be high, the impact of inequality is perhaps more corrosive at the individual or the household level. So far, research and headlines on inequality have emphasized the most glaring contrasts: the lavish lives of billionaires compared with the uncertainty, stagnant wages and exploitation that are often experienced by the poorest people in society. Global analysts have tended to overlook the impact of income and wealth inequality on accessing basic opportunities, including quality education and health care, meaningful work and decent living conditions.

Inequality in access to opportunities has gone particularly unnoticed in the fast-growing economies of the Asia-Pacific region, where many people have been able to improve their quality of life. There are more schools and health clinics than ever, water supplies and treatment works have come on stream and electricity grids and telecommunications systems have sprouted. The Millennium Development Goals (MDGs) played their part in broadening access to essential services, but many of these achievements were not been evenly distributed.

Inclusion is at the core of the 2030 Agenda for Sustainable Development, reflected in the pledge to leave no one behind and in the vision of a “just, equitable, tolerant, open and socially inclusive world in which the needs of the most vulnerable are met.” This chapter goes beyond the debate of an ideal level of income or wealth and examines the extent to which people from different circumstances and backgrounds across the Asia-Pacific region have equal chances to fulfil their potential.

The chapter begins by exploring the levels of inequality of opportunity people in Asia and the Pacific face on aggregate levels and how each of the opportunities presented is linked to the Agenda for Sustainable Development. It measures inequality of opportunity using the dissimilarity index (D-index), which allows a comparison of inequality levels among countries as well as a further decomposition of the observed inequality into those circumstances that contribute mostly to it.

The analysis then delves deeper to determine those households and individuals that lack access to opportunities. Using an algorithm that produces country- and opportunity-specific classification trees for 21 countries in the Asia-Pacific region, it reveals the circumstances shared by those most disadvantaged and the most advantaged groups in each country. The chapter concludes by discussing trends and whether policies have been effective in influencing access to opportunity.

2.1 WHAT DOES INEQUALITY OF OPPORTUNITY MEAN IN THE CONTEXT OF THE 2030 AGENDA?

Inequality of opportunity is concerned with access to key dimensions necessary for meeting aspirations regarding quality of life. It has *economic dimensions* (e.g. unequal access to decent work, financial services, land ownership, etc.), *social dimensions* (e.g. unequal access to health care, education, nutrition, etc.) and *environmental dimensions* (e.g. unequal access to water, sanitation, clean fuels, electricity, access to land and natural resources, etc.).

To gain an understanding of inequality of opportunity across the Asia-Pacific region, 14 categories or indicators have been selected that encompass basic, yet critical opportunities for individuals and households. The eight indicators of opportunities for individuals are: secondary education, higher education, modern contraceptives, professional help during childbirth, decent work and (absence of) stunting, wasting and overweight among children. The five indicators of opportunities for households are: access to basic drinking water, basic sanitation, electricity and clean fuels, and ownership of a bank account. To summarize the opportunities for households, an additional indicator combines these five categories.

Inequality of opportunity is here defined as the gaps in access to each of these opportunities that depend on circumstances beyond a person's control. The concept of inequality of opportunity has previously been used to distinguish between personal responsibility and circumstances for *economic* outcomes in life. The philosophical foundations of this approach to income distribution lie in the work of John Rawls and Amartya Sen. Rawls was among the first modern political philosophers who articulated the importance of balancing personal liberties with distributive justice and fair options for all, arguing that public policy choices should focus on raising the welfare of the poorest people.¹ Rawls argued that a set of primary goods should be made available for everyone, so that she or he would be able to realize their life plan. Sen, later, argued that inequality could be re-examined from the perspective of human capability, looking at the means rather than the ends of development, since without equal opportunity, equitable outcomes could not be secured.

Focusing on inequality of opportunity also serves as a reminder that inequality is not a static phenomenon, but rather is transmitted to children, creating intergenerational inequality of opportunity traps that reproduce and magnify income inequality.² Inequality of opportunity therefore combines issues of both equity

and efficiency. The equity argument calls for levelling the playing field, in accordance with international agreements and with established human rights. The efficiency argument motivates policymaking that equalizes opportunities at the top level, meaning that everyone should have access, rather than reducing access for those who already have it.³

Target 10.3 of SDG 10 calls for ensuring equal opportunity and reducing inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action. Officially reported numbers of incidents of discrimination may underestimate the real experience of those most marginalized. Reported data may also not reveal the daily experience of women, men and children who lack access to basic opportunities because of entrenched poverty and institutional failure.

Target 10.3, however, is not the only one in the 2030 Agenda that relates to inequality of opportunity. The indicators of opportunities presented in this chapter refer to specific SDGs and most of them also directly respond to established indicators. Of them, five are examined in detail: secondary educational attainment, stunting among children (used as a proxy for adequate nutrition), professional help during childbirth, full-time employment (used as a proxy for decent work in developing country contexts) and a group of basic household services (Table 2.1). To identify the patterns of advantage or disadvantage, we have referred to data available in *Demographic and Health Surveys* (DHS) and *Multiple Indicator Cluster Surveys* (MICS) and the latest *World Gallup Survey*.

2.2 WHY INEQUALITY IN ACCESS TO OPPORTUNITIES MATTERS

Equity in opportunity can be described as a level playing field on which all households enjoy the same access to basic services, such as clean water, sanitation, electricity and clean fuels; where all children have adequate nutritious food and complete education; where everyone has access to health care services when needed, at affordable prices; and where those who want to work can find a decent job. These rights are enshrined in various Conventions of the United Nations, including the Convention on the Rights of the Child, the Convention on the Rights of Persons with Disabilities and, certainly, the Universal Declaration of Human Rights. They are also enshrined in Constitutions and other legislation across the region and are what drove leaders of 193 countries to adopt the SDGs in 2015.

Although the Asia-Pacific region has experienced significant advances in many development indicators, the playing field is not levelled. Enrolment rates in primary

Table 2.1 Links between opportunities, circumstances and the SDGs

Opportunity				Circumstances used to determine groups of the furthest behind/ahead						Closest SDG indicator reference
	Opportunity	Survey used	Reference group in survey	Wealth: Bottom 40-Top 60*	Residence: Urban-Rural	Education: No/Primary-Secondary-Higher	Sex: Male-Female	Children: Yes-No, Number	Age: 15-24, 25-49, 50-64	Related SDG Indicator
1	Secondary education	DHS/ MICS	Household member aged 20-35	Wealth	Residence	n/a	Woman/Man	n/a	n/a	4.1.1 Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex
2	Higher education	DHS/ MICS	Household member aged 25-35	Wealth	Residence	n/a	Woman/Man	n/a	n/a	4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex
3	Stunting	DHS/ MICS	Child aged 0-5 who has been measured	Wealth	Residence	Mother's Education	Boy/Girl	Number of children <5	n/a	2.2.1 Prevalence of stunting (height for age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age
4	Overweight	DHS/ MICS	Child aged 0-5 who has been measured	Wealth	Residence	Mother's Education	Boy/Girl	Number of children <5	n/a	2.2.2 Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight)
5	Wasting	DHS/ MICS	Child aged 0-5 who has been measured	Wealth	Residence	Mother's Education	Boy/Girl	Number of children <5	n/a	2.2.2 Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight)
6	Use of modern contraceptive	DHS/ MICS	Women between 15-49 currently in union	Wealth	Residence	Respondent's education	n/a	Number of children <5	15-24, 25-49	3.7.1 Proportion of women aged 15-49 years who have their need for family planning satisfied with modern methods
7	Professional help in birth	DHS/ MICS	Women between 15-49 ever given birth in the last 5 years	Wealth	Residence	Respondent's education	n/a	Number of children <5	15-24, 25-49	3.1.2 Proportion of births attended by skilled health personnel
8	Full-time employment	Gallup World Poll	All men and women 15-64 who are in the workforce	Marital status (see Note 3)	Residence	Respondent's education	Woman/Man	Have children	15-24, 25-49, 50-64	8.3.1 Proportion of informal employment in non-agriculture employment, by sex (proxy)
9	Basic drinking water	DHS/ MICS	All households	Wealth	Residence	Highest Education in household (hh)	n/a	n/a	n/a	6.1.1 Proportion of population using safely managed* drinking water services
10	Basic sanitation services	DHS/ MICS	All households	Wealth	Residence	Highest Education in hh	n/a	n/a	n/a	6.2.1 Proportion of population using safely managed* sanitation services, including a hand-washing facility with soap and water
11	Electricity	DHS/ MICS	All households	Wealth	Residence	Highest Education in hh	n/a	n/a	n/a	7.1.1 Proportion of population with access to electricity
12	Clean fuels	DHS/ MICS	All households	Wealth	Residence	Highest Education in hh	n/a	n/a	n/a	7.1.2 Proportion of population with primary reliance on clean fuels and technology
13	Bank account	DHS/ MICS	All households	Wealth	Residence	Highest Education in hh	n/a	n/a	n/a	8.10.2 Proportion of adults (15 years and older) with an account at a bank or other financial institution or with a mobile money-service provider
14	Household services (Opportunities 9-13 combined)	DHS/ MICS	All households	Wealth	Residence	Highest Education in hh	n/a	n/a	n/a	1.4.1 Proportion of population living in households with access to basic services

Note: For all opportunities, except No. 8 (full-time employment) the data used are from DHS and MICS, earliest and latest surveys available (36 surveys in total), while for opportunity No. 8 the data used are from the *Gallup World Poll*, latest year.

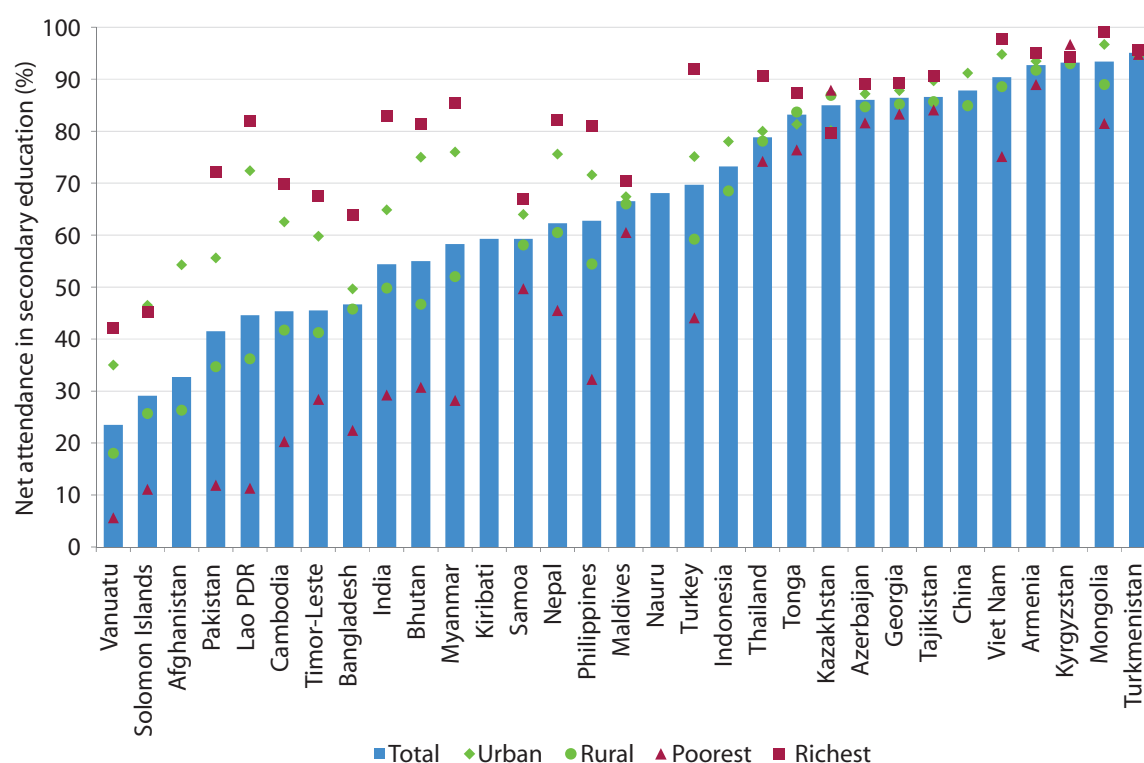
Note 2: In orange are those opportunities that are the focus of this chapter.

Note 3: For opportunity 8, which is based on a different survey, the person's place in the wealth distribution was not used for the analysis. Marital status (divorced, married, separated, single) was used as an additional circumstance (not as a replacement for wealth).

education, for example, now average around 95 per cent. But this achievement has been offset by low attendance and high dropout rates in secondary education in the region's poorer countries. Net attendance in secondary education remains below 35 per cent, for example, in Afghanistan, the Solomon Islands and Vanuatu (see Figure 2.1). Poorer households struggle to keep their children in school because of the costs or the potential loss of immediate income. In rural areas the returns of an additional year of schooling tend to be low, especially for girls.

Inequality in access to education has a significant impact on the economic, social and environmental dimensions of sustainable development. Fewer years spent in school with lower-quality education not surprisingly affect productivity and the potential for economic growth. Lower overall educational attainment in a household is also linked to inequality in accessing other key opportunities including adequate nutrition for children, clean water and basic sanitation, clean fuels and electricity.⁴

Figure 2.1 Secondary school attendance gaps in Asia-Pacific countries, latest year



Source: ESCAP, 2017. *Sustainable Social Development in Asia and the Pacific: Towards a people-centred transformation*.

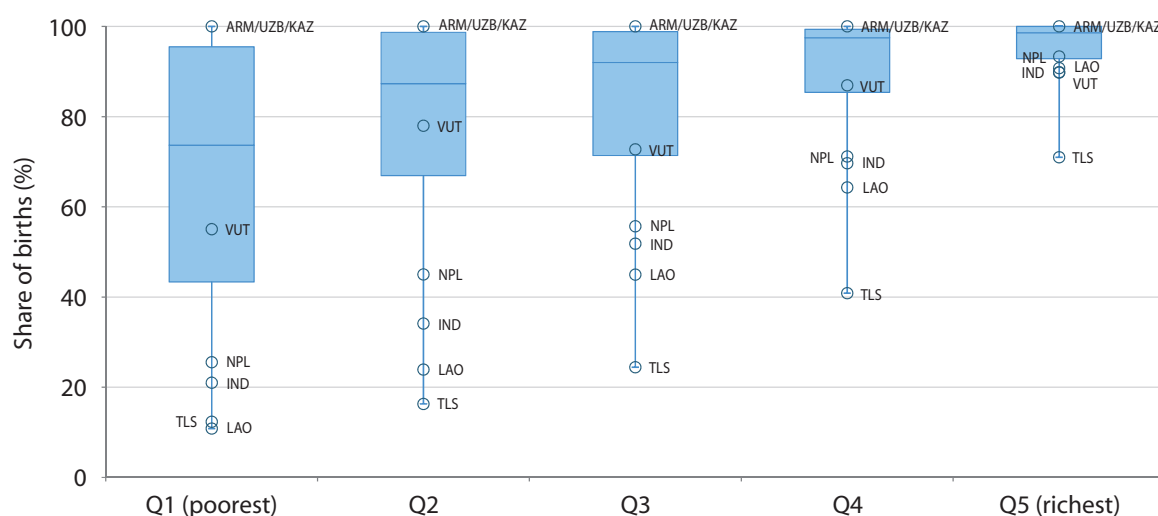
Note: Secondary net attendance ratio data were disaggregated by wealth quintiles and location of residence. For countries in the Asia and Pacific region, the most recent data were used.

Inequality in access to health care is also damaging from both an equity and an efficiency perspective. Yet, there is ample evidence of persisting health-care-related inequalities across the Asia-Pacific region. One example is the proportion of births attended by skilled personnel, a critical factor for reducing neonatal and maternal mortality. The divide in skilled birth attendance between rich and poor segments within many countries is enormous, although there is a much lower variation among wealthier groups between countries (Figure 2.2). The richest citizens in all countries, with the exception of Timor-Leste, enjoy a similarly high level of access to skilled personnel when giving birth. Conversely, the poorest citizens have the lowest level of access to skilled personnel when giving birth. Armenia, Kazakhstan and Uzbekistan are exceptions, where nearly all births are attended by skilled personnel.

Inequality in access to health care often has long-term health implications for women and children, with a negative impact on educational attainment and future labour force participation rates. Improvements in reproductive health services are associated with reduced fertility rates among poorer women, which, in turn, not only increase their chances of survival, but may also boost their earning potential.⁵ Inequality in access to health care can also have a broader economic impact. As health-care costs and out-of-pocket health-related

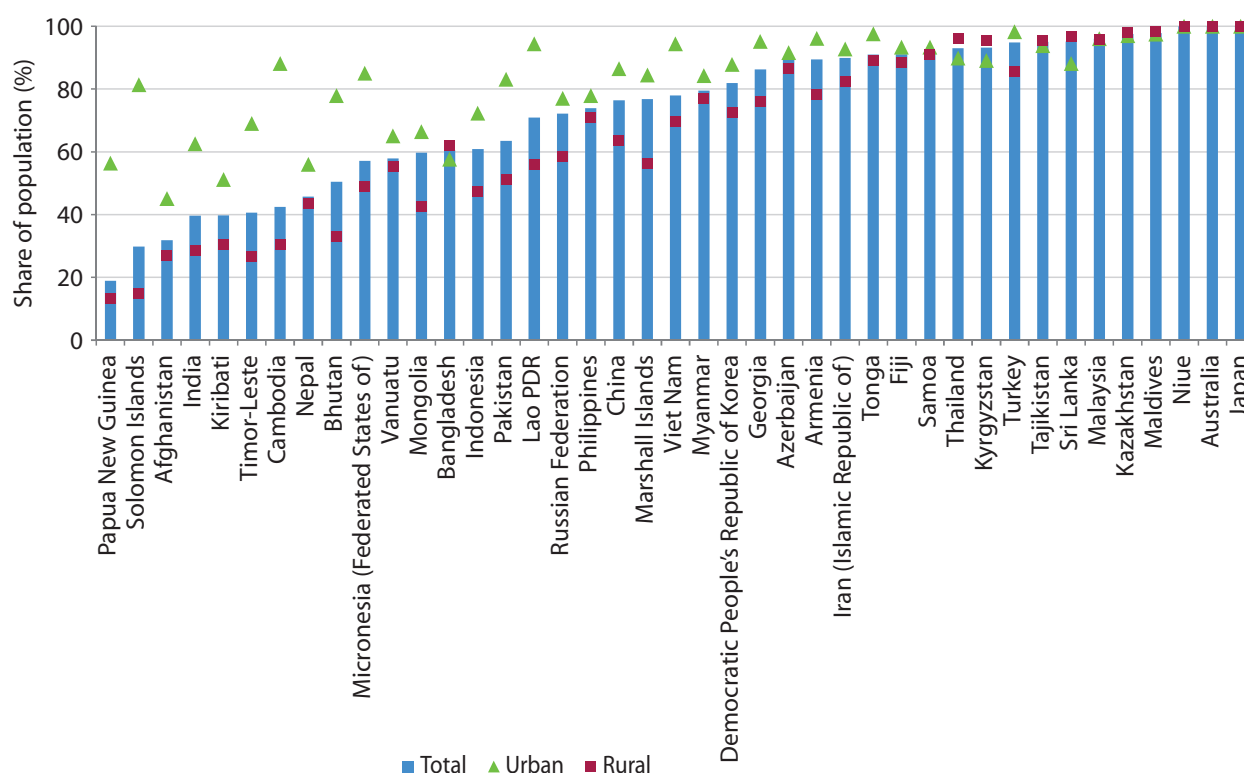
expenditures are particularly high in the Asia-Pacific region, families tend to save to guard against the risk of unexpected or unplanned needs.⁶ This higher savings rate can result in lower domestic consumption and slower economic growth.

Being excluded from basic household services can exact a high cost. For example, contaminated water and poor sanitation cause diarrhoea that, if untreated, can lead to long-term cognitive and developmental impacts and even death through dehydration. The World Health Organization (WHO) has estimated that, in 2012, diarrhoea resulting from a lack of clean water and poor sanitation was responsible for more than 800,000 deaths globally and for 1.5 per cent of the global burden of disease.⁷ A lack of sanitation costs the world an estimated US\$260 billion every year in terms of lower productivity, sickness and loss of revenue from unrealized investment in sectors such as tourism.⁸ While substantial progress has been made across the Asia-Pacific region in the past two decades, access to improved sanitation facilities remains low in rural areas of several countries. Fewer than 20 per cent of Papua New Guinea's citizens, for example, have access to improved sanitation facilities, and the figure is lower than 40 per cent in Afghanistan, India, Kiribati, Papua New Guinea, Solomon Islands and Timor-Leste (Figure 2.3).

Figure 2.2 Births attended by skilled personnel in Asia-Pacific countries, by wealth quintile

Source: ESCAP, 2017. *Sustainable Social Development in Asia and the Pacific: Towards a people-centred transformation*.

Note: Data refers to the most recent year between 2003 and 2014.

Figure 2.3 Availability of improved sanitation facilities, Asia-Pacific region

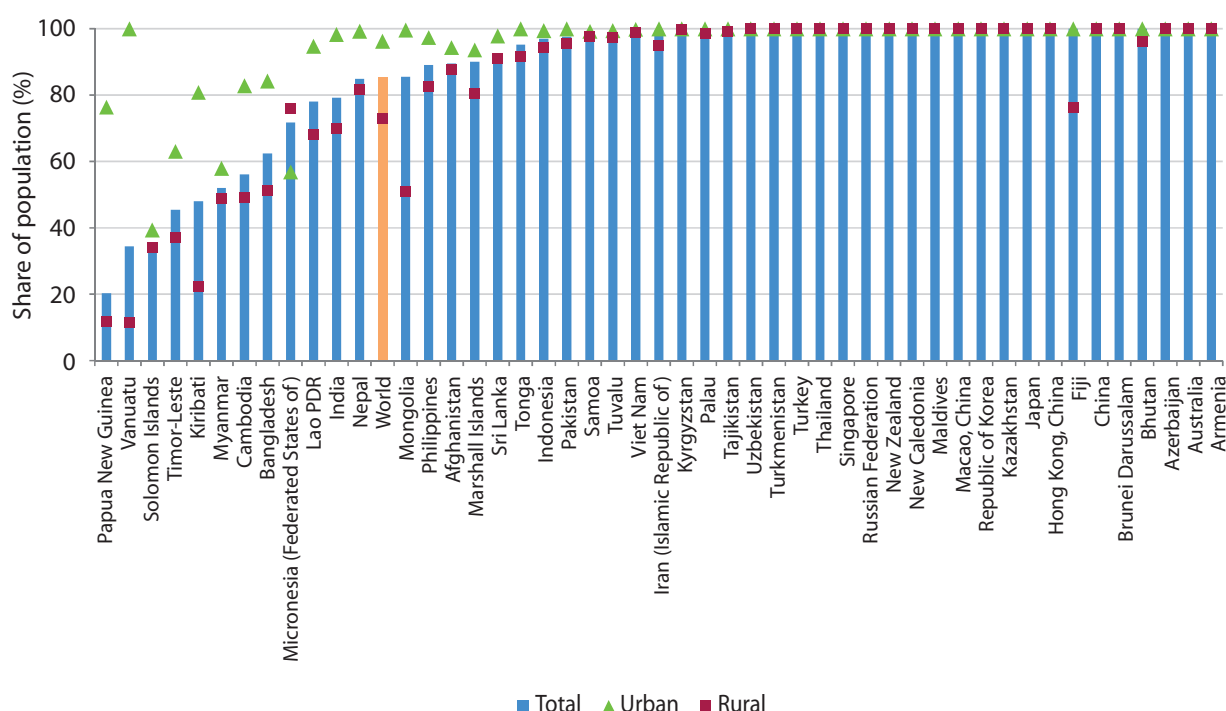
Source: ESCAP, 2017. *Sustainable Social Development in Asia and the Pacific: Towards a people-centred transformation*.

Note: Data refers to the most recent year between 2003 and 2014.

Inequality in access to clean energy, i.e. electricity and clean fuels, also weighs on the efficiency of an economy. Households without electricity, for example, devote less time to study, work or leisure, which can result in fewer opportunities for career development and earning potential. As a result, inequality in access to electricity and clean fuels can create and reinforce inequality gaps in skills and productivity. It also perpetuates disparities

in health outcomes among and within countries. Burning dirty fuels affects air quality in homes and in the community. Globally, indoor air pollution causes more than 4 million deaths per year, more than half of which occur in China and India alone.⁹ Despite economic progress and greater awareness, close to half of all people in Asia and the Pacific still rely on traditional and inefficient fuels for cooking and heating.¹⁰ There are still

Figure 2.4 Access to electricity, Asia-Pacific region



Source: ESCAP based on World Bank, Sustainable Energy for All Database, SE4ALL Global Tracking Framework, 2017.

marked gaps in access to electricity, notably in rural areas of Papua New Guinea, Solomon Islands, Timor-Leste and Vanuatu (Figure 2.4).

Inequalities in access to services such as an electricity supply, clean cooking fuels, drinking water and sanitation disproportionately affect women, who bear the brunt of household work and caretaker tasks.¹¹ They also suffer more from the health consequences associated with indoor air pollution, while foregoing the opportunity to earn their own income.¹²

2.3 WHY AVERAGE PROGRESS IS NOT ENOUGH

The evidence is clear that a rising tide has so far failed to lift all boats. The remainder of this chapter will analyse data from three types of household surveys: *Demographic and Health Surveys (DHS)*, *Multiple Indicator Cluster Surveys (MICS)* and the latest *World Gallup Survey*, to better understand the circumstances of those left behind in Asia-Pacific countries.

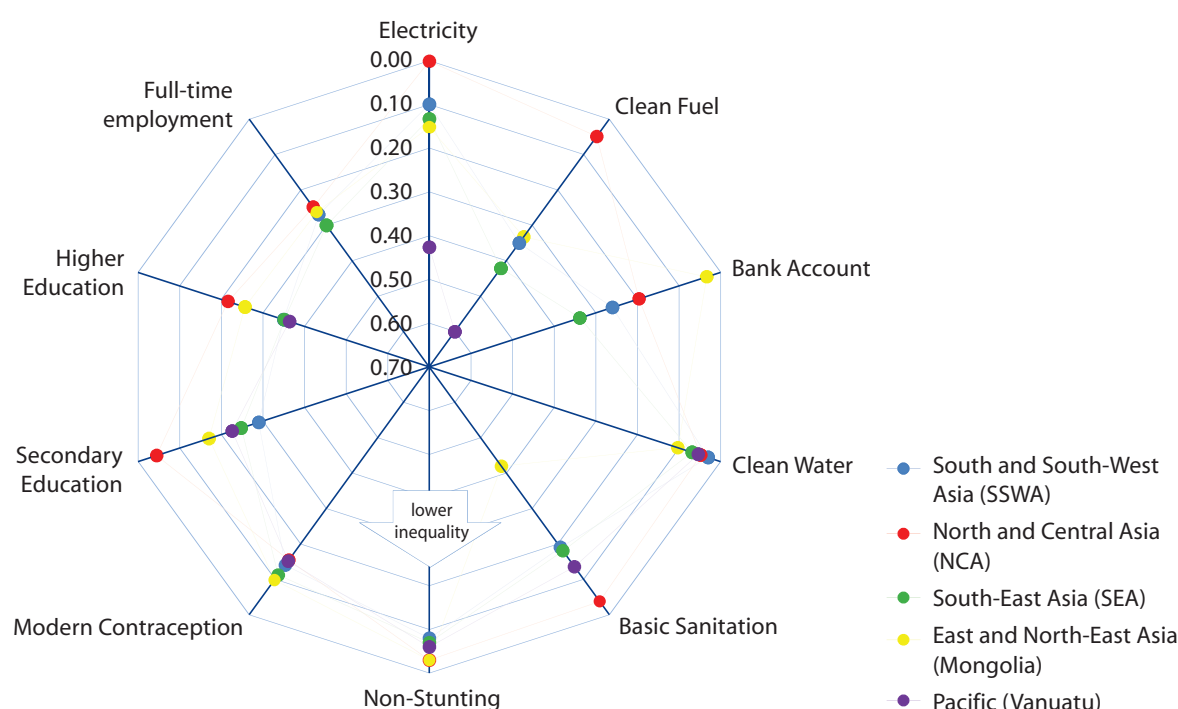
The D-index is a useful tool for measuring the distribution of access to a certain opportunity across societies. It is calculated for 14 individual or household-based indicators of opportunities critical for human wellbeing (Table 2.1): 1) attainment of secondary education for 20-35 year-olds; 2) attainment of higher education for 25-35 year-olds; 3) prevalence of stunting (0-5 year-olds); 4) prevalence of wasting (0-5 year-olds); 5) prevalence of overweight (0-5 year-olds); 6) women's access to modern contraception; 7) women's access to

professional help during childbirth; 8) access to full-time employment;¹³ and 9) household's access to safe drinking water; 10) household's access to basic sanitation; 11) household's access to electricity; 12) household's access to clean fuels; 13) household's ownership of a bank account; and 14) household's access to all of the basic services opportunities for households (9-13), or "multiple deprivation".

The D-index measures how all population groups fare in terms of access to a certain opportunity. For example, two countries with identical secondary education attainment rates may have a different D-index if the distribution of attainment in one country excludes certain groups. Like the Gini coefficient, the D-index takes values from 0 to 1, 0 meaning no inequality, and 1 maximum inequality (Annex 2.1). Unlike the Gini coefficient, the ideal level of a D-index is 0, whereby everyone has access to an opportunity.

The highest D-indices are found in South and South-West Asia, followed closely by South-East Asia (Figure 2.5). In both subregions, the opportunities that stand out as most unequally distributed are access to clean fuels, higher and secondary education and ownership of a bank account. South-East Asia also has the highest average D-index for access to full-time employment, although there is no significant variation across subregions. In East and North-East Asia, data for the majority of opportunities are only available for Mongolia, with safe sanitation the most unequally distributed opportunity, followed by access to clean

Figure 2.5 D-indices for 10 basic opportunities, by subregion



Source: ESCAP calculations using data from the latest Gallup, DHS and MICS surveys for countries in Asia-Pacific.

Note: The closest a country is to the centre of the graph, the higher the D-index and higher the inequality. The furthest away from the centre, the lower the D-index and lower the inequality.

Note 2: This figure only depicts selected average subregional D-Indices (covering 10 out of 14 opportunities) for clarity.

fuels. In the Pacific, data were only available for Vanuatu, where access to electricity and clean fuels were particularly unequally distributed.

Zooming further into each individual country, the subregional messages are repeated. The most unequal opportunities are higher educational attainment and access to clean fuels, followed by ownership of a bank account (Table 2.2). The countries where inequality in access is large in a wide range of opportunities are: Afghanistan, Bhutan, Lao People's Democratic Republic, Pakistan and Timor-Leste.

Lao People's Democratic Republic has the highest inequality of all countries in three opportunities: professional help in childbirth, secondary and higher educational attainment. Timor-Leste also tops the inequality list for three opportunities: access to clean fuels, ownership of a bank account and access to modern contraceptives. Afghanistan exhibits the highest inequality in terms of access to full-time employment and in access to clean water. Pakistan experiences the highest inequality in terms of children's nutrition (prevalence of stunting and wasting).

On the other hand, almost all North and Central-Asian countries have low inequality in access to opportunities, thanks to a tradition of a large state that ensures universal provision of basic services. Kazakhstan has the

lowest inequality in three opportunities (basic sanitation, non-stunted children and secondary education), and below-average inequality in all other opportunities. Turkmenistan is in a similar category, with the lowest inequality in terms of electricity and clean fuels access, as well as professional help during childbirth.

Averaging the D-indices for individuals and households by country confirms the patterns described earlier, but also highlights which countries have relatively higher inequality across all opportunities (Figure 2.6). In addition to Afghanistan, Lao People's Democratic Republic, Pakistan and Timor-Leste, which had the highest inequality in individual opportunities, Cambodia, Myanmar and Vanuatu also appear as particularly unequal across the board of opportunities. At the other end of the scale, Maldives and Thailand stand out, together with several North and Central Asian countries as having achieved a relatively equal distribution of opportunities across various population groups for most opportunities. In the middle of the distribution are some of the region's most rapidly developing countries, including India, Indonesia, Philippines and Viet Nam. India, in particular, made tremendous progress over the past few years in achieving almost universal access to financial services for all households (see Box 4.2 in chapter 4), as well as in increasing women's access to professional help during childbirth (see Figure 2.17).

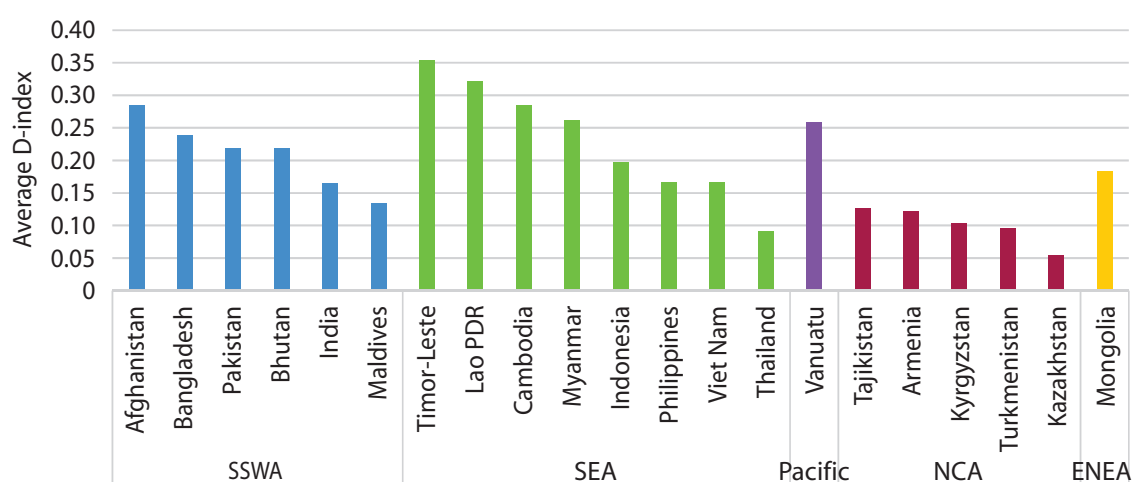
Table 2.2 Calculated D-indices for all opportunities, Asia-Pacific countries

Country	Calculated D-indices													
	Household-based						Individual-based							
	Energy		Financial inclusion	WASH		Multiple	Child Nutrition (0-5 years)			Women's Health (15-49 years)		Education		Employment
	Electricity	Clean fuels	Bank account	Basic drinking water	Basic sanitation	Multiple deprivation	Not stunted	Not wasted	Not overweight	Professional help in childbirth	Modern contraception	Secondary education	Higher education	Full-time employment
Afghanistan	0.09	0.42	0.41	0.14	0.29	0.65				0.15	0.18	0.28	0.35	0.55
Armenia	0.00	0.01	0.26	0.03	0.15	0.36	0.04	0.02	0.04	0.00	0.21	0.02	0.22	0.31
Bangladesh	0.19	0.55	0.34	0.01	0.20	0.58	0.09	0.02	0.01	0.22	0.11	0.26	0.33	0.19
Bhutan	0.19	0.28	0.35	0.01	0.13	0.43	0.05	0.01	0.02	0.17	0.06	0.31	0.37	0.31
Cambodia	0.27	0.46	0.44	0.11	0.30	0.68	0.06	0.01	0.01	0.04	0.12	0.35	0.45	0.33
India	0.07	0.36	0.04	0.01	0.28	0.41	0.08	0.01	0.00	0.06	0.15	0.23	0.32	0.12
Indonesia	0.02	0.28	0.32	0.09	0.19					0.22	0.10	0.20	0.30	0.25
Kazakhstan	0.00	0.01	0.07	0.02	0.00	0.09	0.02	0.01	0.02	0.00	0.08	0.02	0.18	0.15
Kyrgyzstan	0.00	0.09	0.27	0.04	0.01	0.30	0.04	0.01	0.02	0.00	0.13	0.03	0.14	0.32
Lao PDR	0.17	0.63	0.37	0.08	0.23	0.66	0.12	0.01	0.01	0.34	0.12	0.39	0.50	0.37
Maldives	0.00	0.04	0.08	0.01	0.02	0.14	0.04	0.02	0.02	0.11	0.18	0.37	0.41	
Mongolia	0.15	0.33	0.03	0.10	0.42	0.44	0.03	0.00	0.02	0.01	0.10	0.17	0.26	0.26
Myanmar				0.07	0.19		0.07	0.01	0.01			0.33	0.41	0.30
Pakistan	0.04	0.45	0.35	0.03	0.22	0.53	0.13	0.03	0.01	0.16	0.18	0.25	0.34	0.17
Philippines	0.08	0.39		0.03	0.11			0.00	0.00	0.10	0.10	0.13	0.24	0.30
Tajikistan	0.01	0.14	0.16	0.07	0.01	0.41	0.05	0.02	0.02	0.04	0.20	0.10	0.25	0.30
Thailand	0.00	0.18	0.05	0.01	0.01	0.23	0.03	0.01	0.02	0.00	0.05	0.14	0.21	0.27
Timor-Leste	0.38	0.71	0.52	0.12	0.28	0.75				0.29	0.22	0.24	0.42	
Turkmenistan	0.00	0.00	0.22	0.08	0.01	0.25	0.02	0.01	0.01	0.00	0.15	0.05	0.29	0.16
Vanuatu	0.43	0.60		0.05	0.14		0.06	0.02	0.02	0.11	0.15	0.23	0.36	
Viet Nam	0.00	0.30	0.33	0.04	0.13	0.45	0.09	0.02	0.01	0.05	0.07	0.21	0.28	0.27

Source: ESCAP calculations using data from the latest DHS and MICS surveys for countries in Asia-Pacific. Additional countries from the *Gallup World Poll* are not included as D-index was available for one opportunity only, "Full-time employment."

Note: The green light is given to the values that are in the lowest third (from zero to 33th percentile), yellow to the middle third (33-67th) and red for the highest third. The split into percentiles is done based on all opportunities together, hence most of the Asia-Pacific countries listed here belong to the lowest third for child nutrition and to the highest third for education and employment. Additionally, the best and the worst performer in each opportunity are highlighted with green/red shading.

Figure 2.6 Average D-indices in Asia-Pacific countries, grouped by subregion



Source: ESCAP calculations using data from the latest DHS and MICS surveys for countries in Asia-Pacific.

2.4 WHAT DRIVES INEQUALITY OF OPPORTUNITY...

The contribution of each of the circumstances to inequality measured in terms of the D-index can be estimated using a methodology called the Shapley decomposition (Annex 2.2). The decomposition results show that different circumstances weigh differently in shaping inequality for each opportunity and country, although common threads can be found. This section first reviews the drivers of inequality in three key opportunities: secondary educational attainment, access to adequate nutrition among children and access to

decent work. It then takes a bird's-eye view to spot the most important drivers of inequality across all countries and opportunities.¹⁴ Identifying these common drivers reveals not only that inequality of opportunity is tightly linked with inequality of outcome (wealth and income), but also that it is easily transmitted across generations.

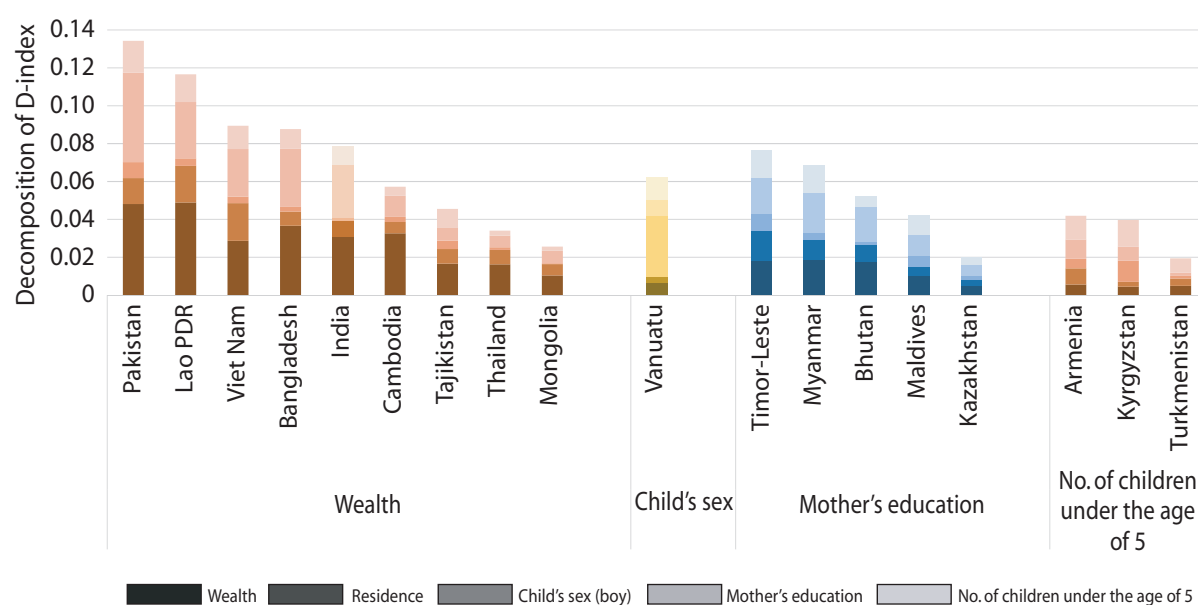
2.4.1 ...in stunting

Stunting in children is associated with poorer school performance and lower future earnings potential. The circumstances that underpin observed inequality in stunting levels among children vary.¹⁵ In 9 out of 18

countries, the child's household wealth status is what determines most of the inequality (Figure 2.7). Among those countries, Lao People's Democratic Republic and Pakistan stand out as the countries with the highest inequality, as measured by the D-index. The second most important circumstance is a mother's education, which

is driving most of the inequality in 5 out of the 18 countries. In three countries, Armenia, Kyrgyzstan and Turkmenistan, inequality is mostly associated with the size of the household, and less so by wealth, residence, or the child's sex.

Figure 2.7 Inequality in adequate nutrition among children (non-stunted) and its decomposition for selected countries, grouped by the most important circumstance in shaping inequality, latest year



Source: ESCAP, using data from the latest DHS and MICS surveys for Asia-Pacific countries.

These results are also confirmed through country-specific logistic regressions (Figure 2.8, Panel 1).¹⁶ A mother's education is prominent in determining her child's nutrition status in most South Asian countries, including Bangladesh, Bhutan and Pakistan, indicating that women have a strong role in determining their children's nutrition status, despite marginalization and persistent inequalities in other aspects of social and economic life. A child whose mother has completed secondary education has between 20 per cent (Timor-Leste) and 110 per cent (Pakistan) higher chances of being non-stunted. Investing in the education of girls, particularly in South Asian countries, could therefore help disrupt the cycle of intergenerational disadvantage that is transmitted across generations through inadequate nutrition.

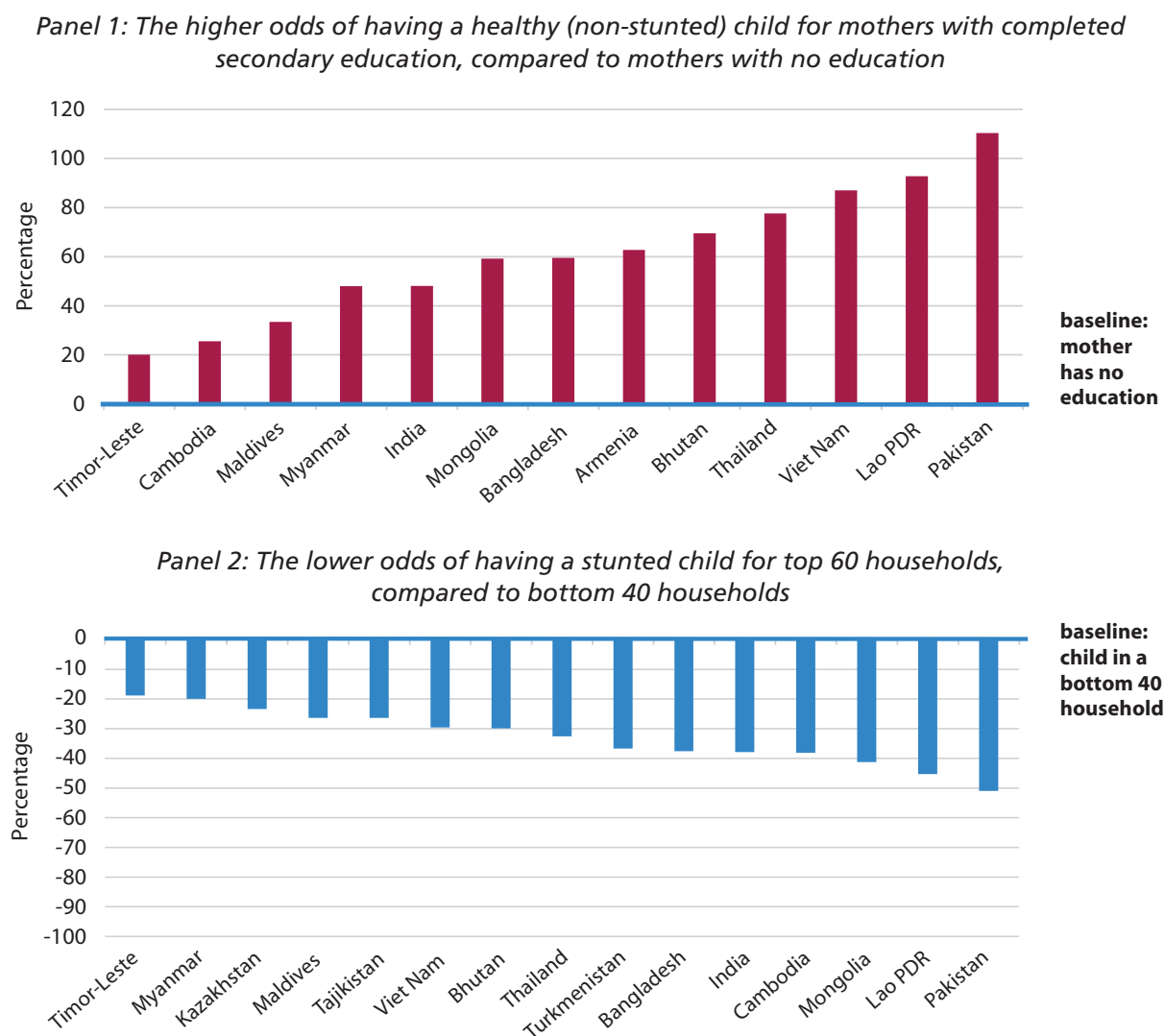
Family (household) wealth is also startlingly important in shaping a child's risk of being stunted. In Pakistan, children from households in the top 60 per cent of the wealth distribution are half as likely to be stunted (Figure 2.8, Panel 2). In most of the remaining countries, belonging to the top 60 reduces the risk of children being stunted by between 20 and 40 per cent, a significant impact.

2.4.2 ...in education

Wealth is, in turn, a critical factor for accessing secondary education in 12 out of 21 countries (Figure 2.9). The contribution of wealth in shaping inequality is shown by the light-shaded colour in each bar. Wealth makes up for a higher share of the D-index in countries marked in green, which includes very different countries: from Bangladesh and Pakistan, with higher inequality, to Armenia and Kazakhstan, with much lower inequality levels. The importance of an individual's wealth level in driving inequality in education also emphasizes the vicious cycle between inequality of outcome and inequality of opportunity, whereby poorer young men and women join the labour force with less formal education and possibly fewer skills.

The second most prevalent circumstance is residence in a rural area, highlighting the urban-rural divide in the availability of quality schools and opportunities in 7 out of 21 countries. In two countries, Afghanistan and Tajikistan, gender matters most. A closer look at the groups of those being left behind (Annex 2.3: Who are the furthest behind?) confirms that in both countries women are mostly excluded from secondary education.

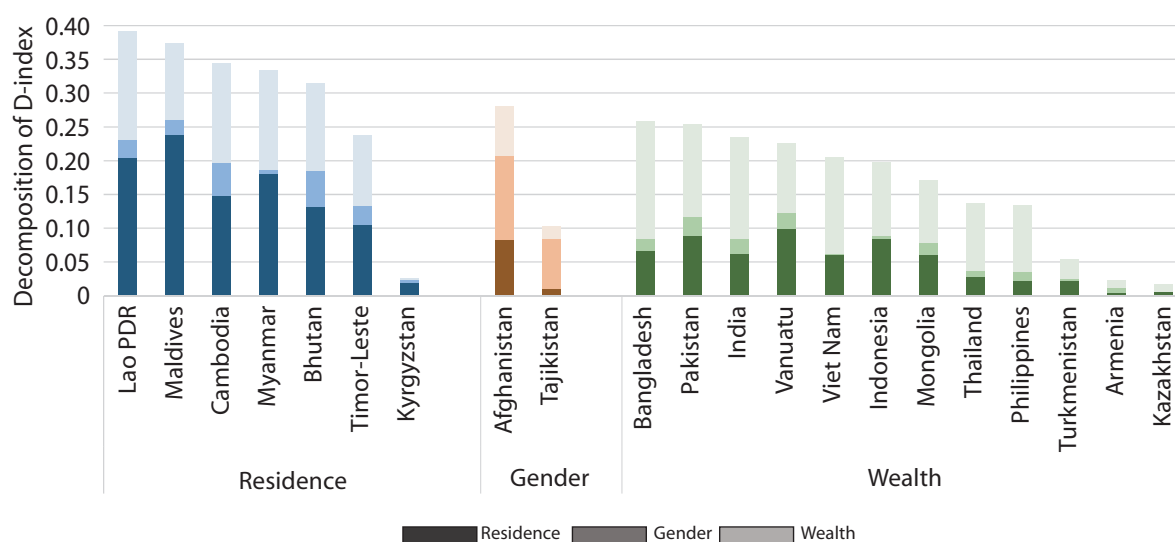
Figure 2.8 Impact of mother's education and household wealth in reducing stunting among children, selected Asia-Pacific countries



Source: DHS and MICS surveys, latest data.

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

Figure 2.9 Inequality in secondary educational attainment among 20-35-year olds and its decomposition, countries grouped by most important circumstance, latest year

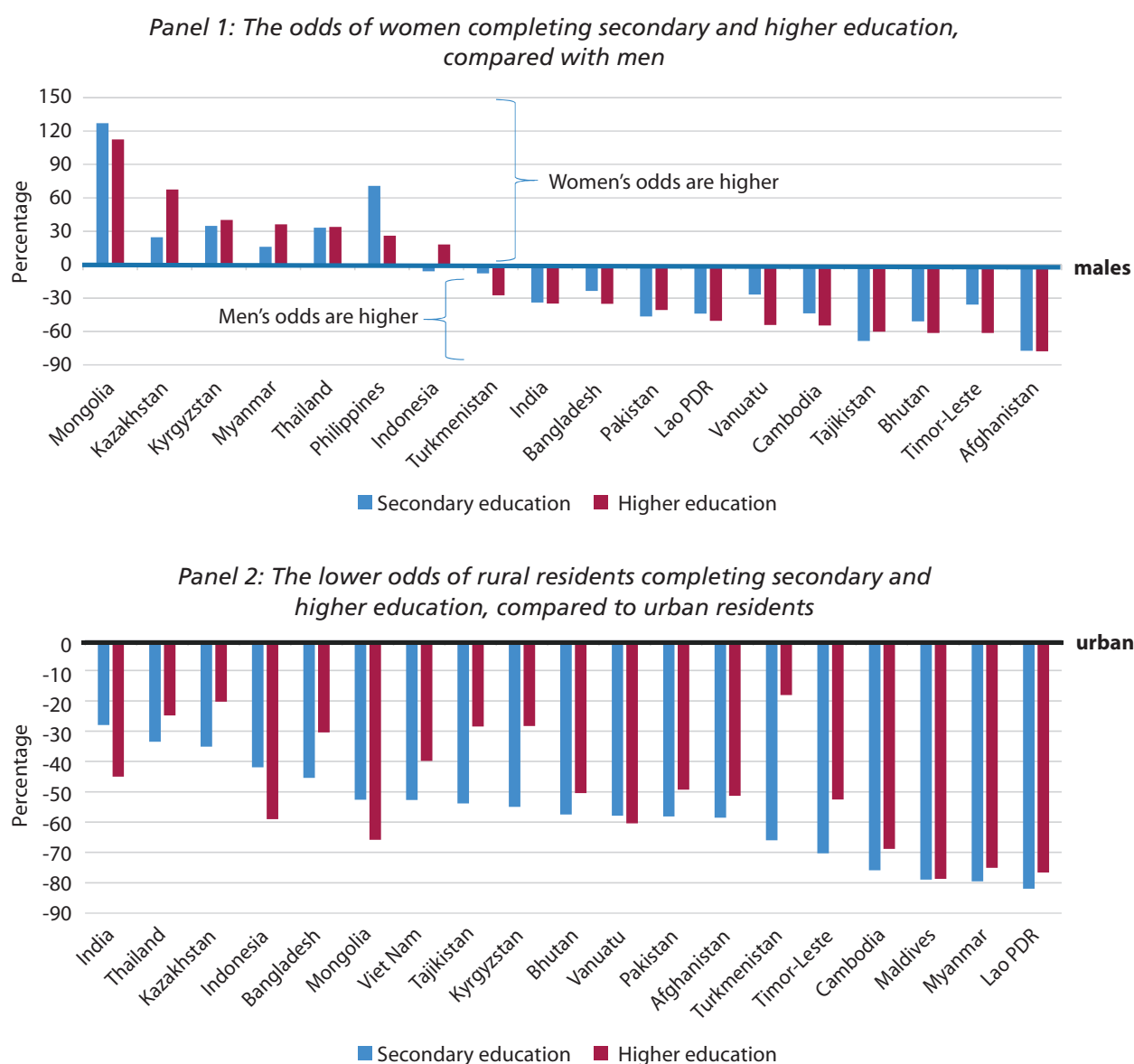


Source: ESCAP calculations, using data from DHS and MICS surveys for Asia-Pacific countries.

While these findings do not indicate causality (living in rural areas does not cause people to drop out of secondary education), the strong association indicates an underlying relationship worth exploring. Indeed, regression analysis shows that in Afghanistan and in Tajikistan women have up to a 60 per cent less chance than men to complete secondary education (Figure 2.10, Panel 2).¹⁷ The chances of women completing secondary education are also lower in the less developed South-East Asian countries and in most of South Asia. Overall, however, the gender impact is mixed. In many North and Central Asian countries, as well as in some South-East Asian countries (Myanmar, Philippines and Thailand), women have higher chances of completing secondary and higher education than men, all else being equal. In Mongolia, their chances are twice as high as for men.

The impact of rural residence, on the other hand, always goes in one direction, limiting the chances of individuals completing secondary or higher education. In the majority of countries, residing in a rural area is associated with lower chances of obtaining a secondary education by 50 per cent or more. In certain South-East Asian countries, including Cambodia, Lao People's Democratic Republic, Myanmar and Timor-Leste, the chances of a rural resident completing a secondary or higher education are up to 80 per cent lower than those of an urban resident. The impact of residence is less pronounced in upper-middle income countries, such as Thailand and Kazakhstan, but also in Indonesia, a result that could be attributed to decentralization and prioritization of investments in schools in rural areas in that country.

Figure 2.10 Impact of gender and residence in completing secondary and higher education, selected Asia-Pacific countries



Source: Latest DHS and MICS surveys.

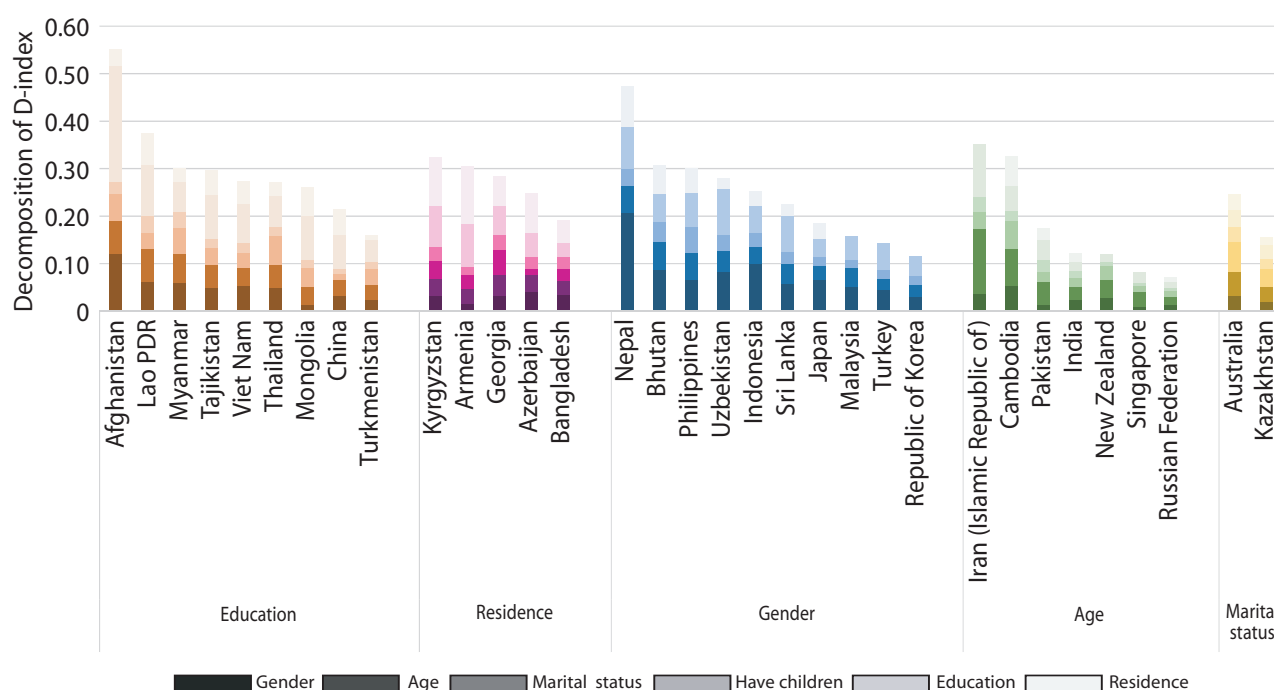
Note: Results are based on country-specific logistic regressions. Only countries with statistically significant coefficients and odds-ratios are shown.

2.4.3 ...in decent work

Beyond adequate nutrition and 12 completed years of education, the most direct determinant of future outcomes is the opportunity to access decent work. Decent work is characterized by four main components: employment, social protection, rights at work and social dialogue. While it is not possible to review all components through available survey data, a proxy used in this analysis is being a full-time employee for a company or employer. Given the large scale of labour market informality and underemployment in most developing countries in the region, access to full-time employment is used to proxy the conditions of decent work.

Among all circumstances, gender explains the bulk of inequality in access to full-time employment more frequently than any other factor, including education (Figure 2.11). It is the most prominent circumstance in 10 out of the 33 countries studied, including Nepal and the Republic of Korea. The second most important circumstance is the level of education, followed by the age group. Age group matters most in several more advanced countries such as New Zealand, the Russian Federation and Singapore, but also in Cambodia, India, the Islamic Republic of Iran and Pakistan. Marital status is generally less associated with high inequality, except in the cases of Australia and Kazakhstan.

Figure 2.11 Inequality in access to full-time employment and its decomposition in selected countries, grouped by the most important circumstance, latest year



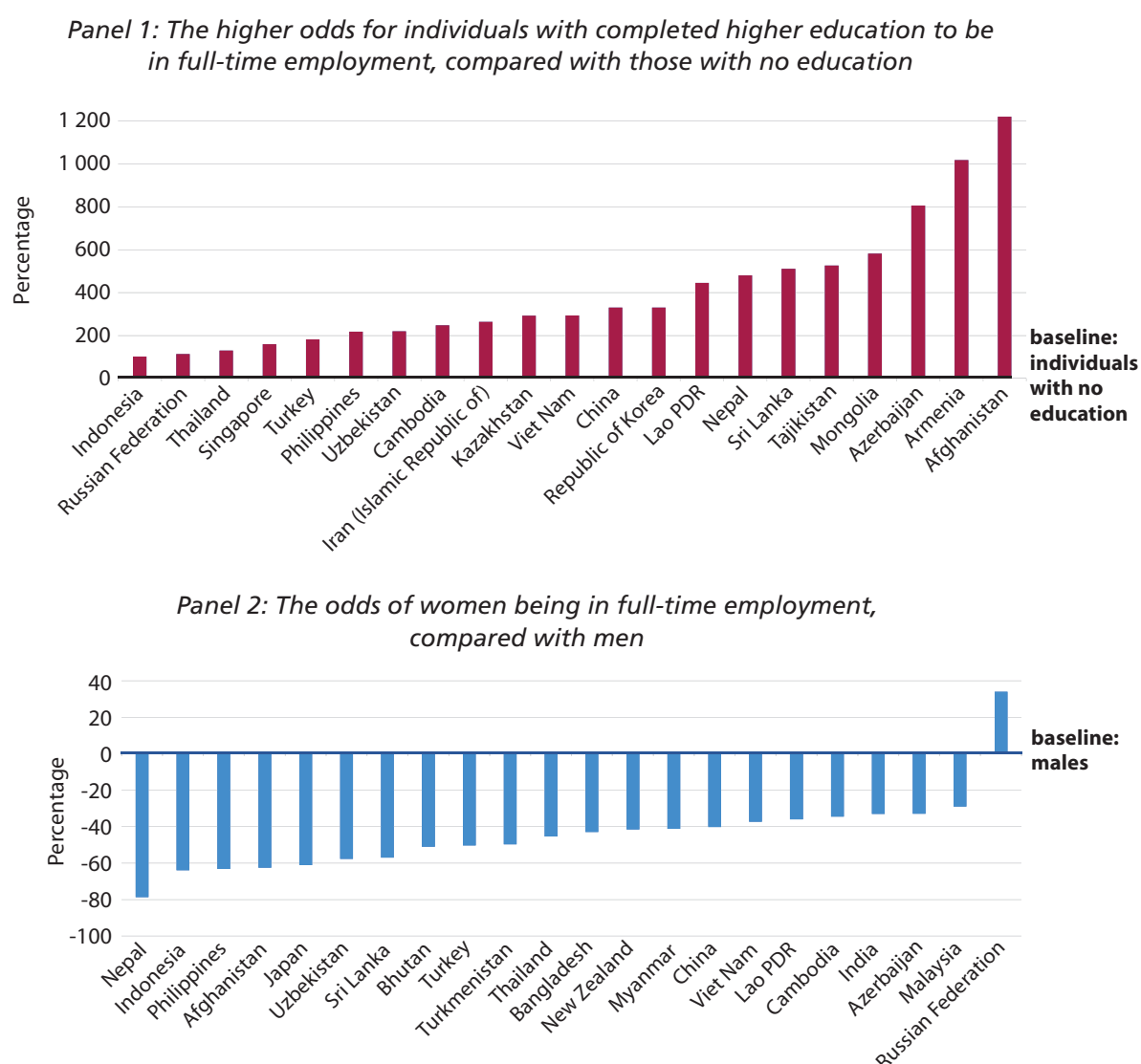
Source: ESCAP calculations, prepared with the help of ILO and using data from the Gallup World Poll.

Note: In more advanced countries, being in full-time employment could also reflect personal choice to work part-time. For the definition of full-time employment, see relevant endnote (No.13).

These results are confirmed through regression analysis of survey data.¹⁸ Completing higher education increases the odds of being a full-time employee by a staggering 11 times (1,200 per cent) in Afghanistan, 9 times in Armenia and 7 in Azerbaijan. Even in countries where the impact is smaller, like in Indonesia, the Russian Federation and Thailand, having completed higher education still doubles the chances of being a full-time employee (Figure 2.12, Panel 1). The scale of importance of higher education in creating an advantage in the

labour market is beyond any other seen in the regression analyses conducted for this report.

Women are less likely than men to be in full-time employment in all countries studied apart from Russian Federation. In Nepal, women are almost 80 per cent less likely to be in full-time work than their male counterparts, all else being equal – the largest gap in the region – followed by Indonesia, Philippines and Afghanistan (Figure 2.12, Panel 2).

Figure 2.12 Impact of education and gender in getting full-time employment

Source: Results are based on country-specific logistic regressions. Only countries with statistically significant coefficients and odds-ratios are shown. Analysis conducted with the help of ILO and using data from the Gallup World Poll.

Note on Panel 2: In developed countries, the level of full-time employment may reflect a personal choice, rather than an access issue.

2.4.4 Overall determinants

These decompositions point to the important links between a mother's education, children's nutrition, school completion and employment prospects, particularly for the region's developing countries. These patterns are repeated across all opportunities studied and sketch an image of the following four most important drivers of inequality in access to opportunities in Asia and the Pacific:

- **Education has a prominent role in shaping inequality in access to all opportunities.** Education, when viewed as a "circumstance," matters in different ways depending on the opportunity: for children's nutrition, it is the education of a mother; and for securing full-time employment, it is the individual's own level of

education. The highest education level in the household is also important for determining access to all basic household-level services, but mostly associated with ownership of a bank account.¹⁹ Given that basic literacy is necessary for accessing, understanding and operating banking services, this association is not surprising.

- **The rural-urban divide is behind much of the observed inequality in access to opportunities.** Together with education, the rural-urban divide is among the most prevalent circumstances in determining inequality in access to various household-based opportunities, particularly basic water and sanitation, electricity and clean fuels, but also individual-based opportunities like secondary and higher education attainment. Interestingly, across all household-related opportunities, countries

with higher D-indices (hence higher inequality) are also those where the rural-urban divide is most important.

- **Gender is an important determinant of inequality in education and full-time employment.** Being a woman explains the bulk of inequality in access to full-time employment more frequently than any other factor, including education. The impact of being a woman or a man with respect to secondary and higher educational attainment is interesting because it goes both ways, depending on the country.
- **Wealth is overall the most common driver of inequality of opportunity in all countries.** It is the most important circumstance with respect to inequality in secondary and higher education attainment, stunting levels, but also in access to most household-related opportunities.²⁰ While being a proxy for many social, economic and environmental disadvantages, its importance in determining inequality of opportunity is striking and confirms the expectation and intuition that disadvantages are intertwined. The prominent role of wealth in shaping these inequalities further emphasizes the intergenerational inequality trap, where inequality of outcome (wealth) has a direct bearing on inequality of opportunity, transmitted across generations.

2.5 WINNERS AND LOSERS – IDENTIFYING THOSE FURTHEST BEHIND

Knowing that inequality of opportunity is broadly associated with these four circumstances opens the door to deeper exploration of the data to see exactly which groups are the most marginalized and which groups have benefitted most from development. Identifying these two sets of groups could help policymakers better focus policy and programmes to tackle inequality, particularly with regards to the provision of basic services.

Using the *classification tree approach*, a methodology commonly used in data mining and popular in machine learning, this section identifies the common circumstances shared by those who are most likely to lack access to the selected opportunities.²¹ In this new methodological approach, an algorithm splits the value for each variable (access rate to an opportunity) into significantly different population groups based on shared predetermined circumstances.

These circumstances vary by opportunity, following different paths for household-based opportunities and individual-based opportunities. In each iteration, the classification tree ascertains groups that are most and

least advantaged. The final groups could, for example, share the circumstances of belonging to the bottom 40 per cent of the wealth distribution and residing in a rural area. The circumstances used for identifying those furthest ahead or behind for each opportunity are summarized in Table 2.1 and are broadly the same as those used in the decomposition analysis of key drivers (previous section).

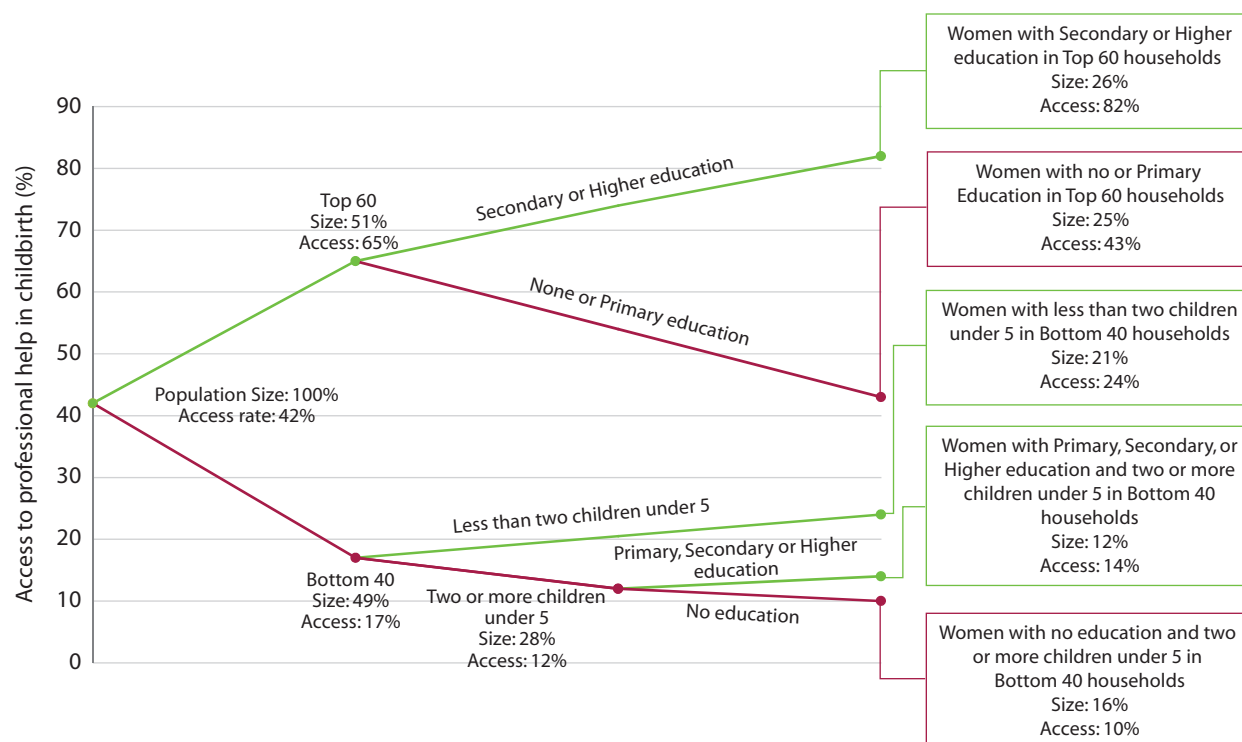
To illustrate how the classification tree identifies the most disadvantaged or advantaged groups, the example of access to professional help during childbirth in Lao People's Democratic Republic is used (Figure 2.13). The classification tree starts at the average access rate of 42 per cent. The algorithm determines that the first split into branches should be wealth, specifically where in the wealth distribution a woman belongs: the top 60 per cent or the bottom 40 per cent. Women belonging to the top 60 per cent group have 65 per cent access rate to professional help in childbirth, compared with only 17 per cent for those in the bottom 40 group.

In the same example, the algorithm determines a second split for the less advantaged (bottom 40 group) around the number of children a woman has had. For their first childbirth, one in four women in the bottom 40 group uses professional help. That rate falls to one in nine for subsequent childbirths or for women with more than one child. The rate of access to professional help also varies for women with more than one child: only one in ten women with no education get professional help, while one in eight of those with completed primary, secondary or higher education do. Among the women belonging to the top 60 group, the only further split is based on education. Half of the women with primary or no education access professional help, compared with eight out of ten of those with secondary or higher education.

The group with the highest access to professional help in childbirth is women with secondary or higher education in households belonging to the top 60 of the wealth distribution. They have an access rate of 82 per cent and represent 26 per cent of Laotian women in union who have given birth in the past five years. Conversely, only one in ten women in the bottom 40 group with no education and two or more children under 5 years of age use professional help during childbirth. The total gap between the groups with the highest and the lowest access is a staggering 72 percentage points.

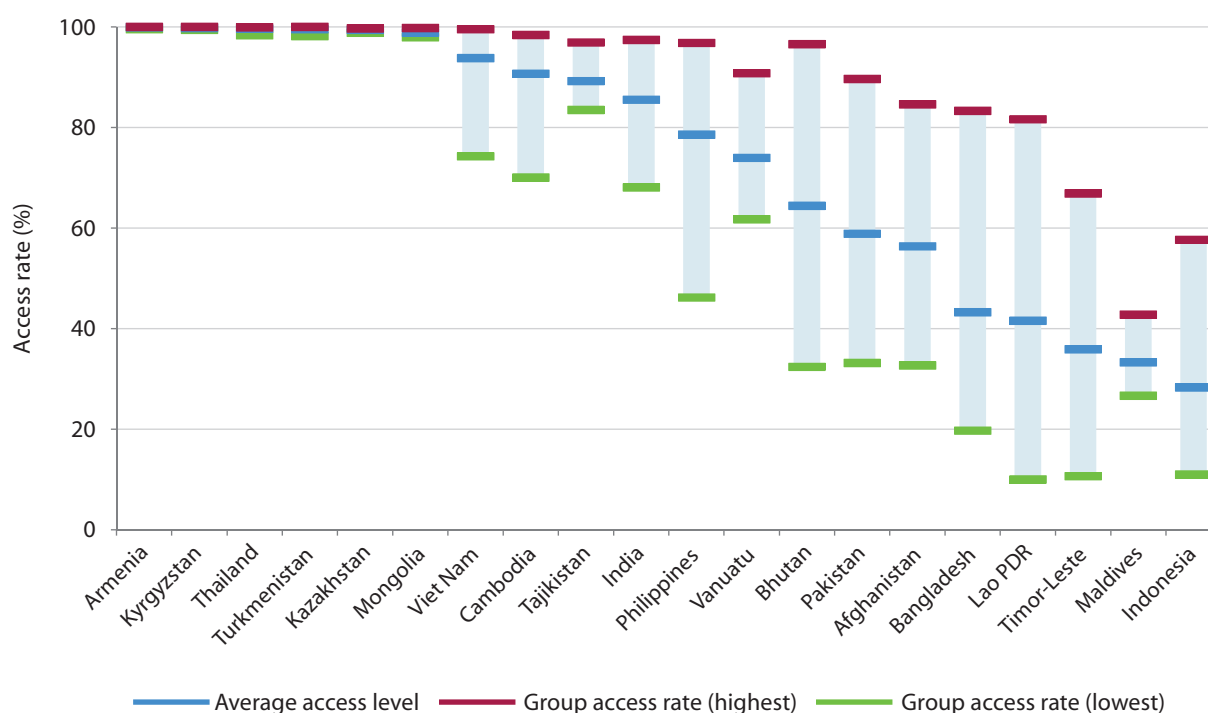
The uniqueness of the classification tree approach is that it becomes very clear where policies should, or should not, be focused to reach those furthest behind. Repeating and summarizing classification tree results for 21 countries is visualized in Figure 2.14. The upper lines

Figure 2.13 Classification tree highlighting differences in women's access to professional help in childbirth in Lao People's Democratic Republic, 2011 (15-49 years of age)



Source: ESCAP calculations, using data from the latest DHS and MICS surveys for countries in Asia-Pacific.

Figure 2.14 Access to professional help during childbirth, Asia-Pacific countries, latest year



Source: ESCAP calculations, using data from the latest DHS and MICS surveys for countries in Asia-Pacific, latest years.

Note: Data for Myanmar not available for this indicator.

of each bar represent the access rate of the most advantaged groups in each country. The lower lines represent those with lowest access rates and the middle line shows the average access rate, by which countries are also sorted. Countries in North and Central Asia and Thailand fare the best with almost universal access and no substantial gaps between population groups. By contrast, Indonesia, the Maldives and Timor-Leste have the lowest average access of below 40 per cent. The largest gaps are not found in the countries with the lowest access but in Lao People's Democratic Republic (72 percentage points), Bhutan and Bangladesh (64 percentage points).

Overall, wealth and education levels strongly impact access to professional care during childbirth, where women from the bottom 40 with lower levels of education appear frequently among the most disadvantaged. In some countries age also matters, with older women being less likely to obtain skilled personnel attendance during childbirth. Lastly, having more children also plays a role, suggesting either lack of resources or awareness in the household of the importance of professional attendance for all births. Annex 2.3 lists the circumstances of groups with lowest access rates.²²

Identifying the furthest behind in all opportunities for each of the 21 countries (33 countries for access to full-time employment) generates over 500 classification trees

(like the one in Figure 2.13). Each tree reveals an individual, community- or country-based story, of success among urban educated elites, of catching-up among rural communities through education, but also of marginalization, mostly in remote, minority communities. The more nuanced, country-based stories need to be explored by policymakers and researchers working in specific sectors in individual countries.

Summarizing the findings from the classification trees for all opportunities, however, yields some general patterns (Table 2.3). The most common shared circumstance of the most disadvantaged households and individuals is a low level of education (primary or below). The second most common circumstance is belonging to the poorest 40 per cent of the national wealth distribution. Households in rural areas are also more likely to be in the most marginalized groups with lower access to basic services. Women are more likely to be in the furthest behind groups, as are younger people and those over 50 years of age.

On the contrary, the profiles of the most advantaged groups in terms of access to basic household services is, expectedly, belonging to the richest 60 per cent of the distribution, having a family member with at least secondary education in the household and living in urban areas. For individuals, the most common circumstance is again being among the wealthiest 60 per cent, having secondary or higher education and being male.

Table 2.3 Shared circumstances of the worst-off and best-off groups in access to opportunities

Common Circumstances: HOUSEHOLDS THAT ARE...

FURTHEST BEHIND		FURTHEST AHEAD	
Circumstances	Count (times)	Circumstances	Count (times)
Lower and primary education	130	Top 60	80
Bottom 40	107	Secondary and higher education	73
Rural	43	Urban	69

Common Circumstances: INDIVIDUALS WHO ARE...

FURTHEST BEHIND		FURTHEST AHEAD	
Circumstances	Count (times)	Circumstances	Count (times)
Bottom 40 of wealth distribution	80	Top 60 of wealth distribution	69
Lower and primary education	74	Secondary and higher education	53
Female	63	Male	50
Living in a rural area	42	Living in an urban area	46
Age 15-24	33	Age 25-49	28
Male	16	Female	17
Age 50-64	14	Age 15-24	9

Source: ESCAP calculations using data from the latest DHS and MICS surveys for countries in Asia-Pacific, latest years

2.6 PROGRESS OVER TIME: WHY POLICY MATTERS

With an overall increase in access to opportunities in recent years, the groups of households and individuals that are furthest behind have experienced some progress. Comparing results from earlier and later surveys reveals that the most marginalized groups represent smaller sections of society but also that their access rates to most opportunities have improved.

This analysis isolates four core opportunities to review progress over time: secondary educational attainment (Figure 2.15), child stunting (Figure 2.16), access to professional help during childbirth (Figure 2.17), and full-time employment (Figure 2.18). It finds that in some countries, despite economic growth and improvements in average access, sizeable groups are being excluded. Countries that increased their investment in social protection, particularly in education and health care, were more successful in closing the gaps compared with those that did not.

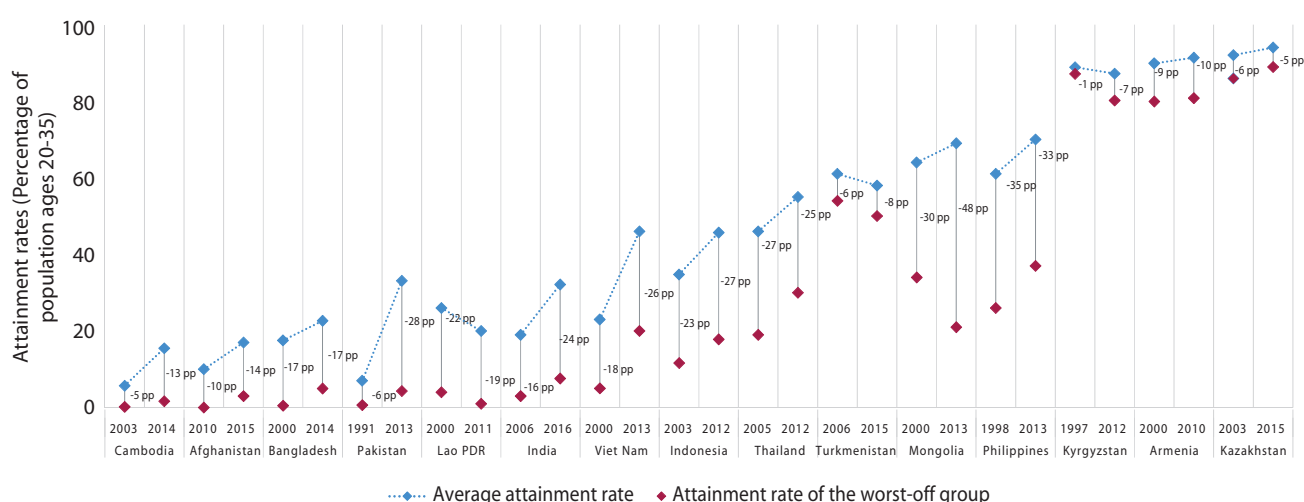
In all countries except Kyrgyzstan, Lao People's Democratic Republic and Turkmenistan, average attainment rates for secondary education increased in the period between the two surveys (Figure 2.15). However, it is only in Kazakhstan, the Philippines and Thailand that the distance of the most marginalized group from the average fell. In the remaining 12 countries, the gap, in percentage point (pp) difference from the mean, grew between the two surveys in time; revealing exclusion of certain groups from the countries' general upward trends.

In the three countries where the gaps from the mean closed, education had been a strong policy priority. In Thailand, the introduction of the 1999 National Education Act guarantees nine years of compulsory education (from six to 15 years of age) and 12 years of free basic education. The free education policy was extended to 15 years in 2009. Kazakhstan's Constitution of 1995 also states that the citizens shall be guaranteed free secondary education in state educational establishments and that secondary education is obligatory. In the Philippines, social protection programmes have prioritized education, at both the primary and secondary levels.²³

Progress has been more equitably shared with respect to children's nutrition (Figure 2.16). Average stunting rates fell in all countries except Armenia and Thailand. Thailand also saw an increase in the average rate of overweight children, from 10 per cent in 2005 to 12 per cent in 2012.²⁴ This finding for Thailand, an upper-middle income country, suggests that ensuring children's access to the right nutrition is a complex economic, social and cultural issue. In Bangladesh, Lao People's Democratic Republic, Pakistan and Thailand the gaps of the most disadvantaged groups (the groups with the highest prevalence of stunting) from the average increased, suggesting that some children were being left behind from overall progress.

The most successful countries in reducing stunting rates for all were Cambodia, Kazakhstan, Kyrgyzstan, Mongolia and Turkmenistan. In Mongolia, the universal and unconditional Child Money Programme (initially a targeted and conditional programme) is considered to

Figure 2.15 Distance between the worst-off groups and average attainment of secondary education for individuals 20 to 35 years of age, earliest and latest

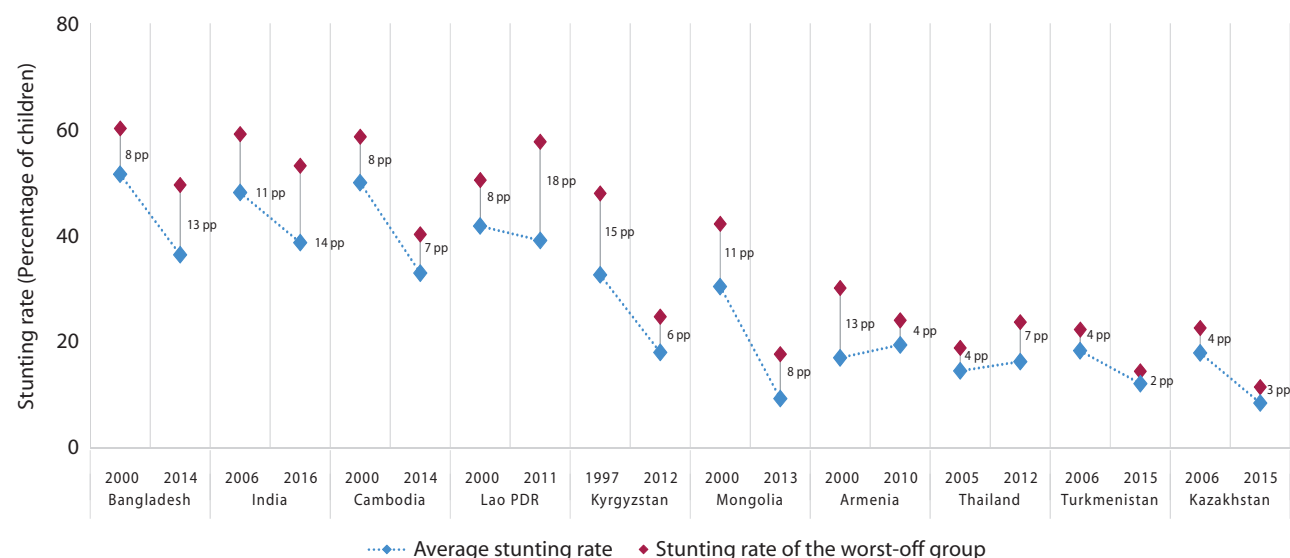


Source: ESCAP calculations, using data from the latest DHS and MICS surveys for countries in Asia-Pacific.

Note: The disadvantaged groups may not have the exact same composition in both surveys. However, the most disadvantaged groups always represent at least 10 per cent of the population and have at least one common circumstance.

Note 2: pp stands for percentage points.

Figure 2.16 Distance between the worst-off groups and the average in stunting for children 0 to 5 years of age, earliest and latest

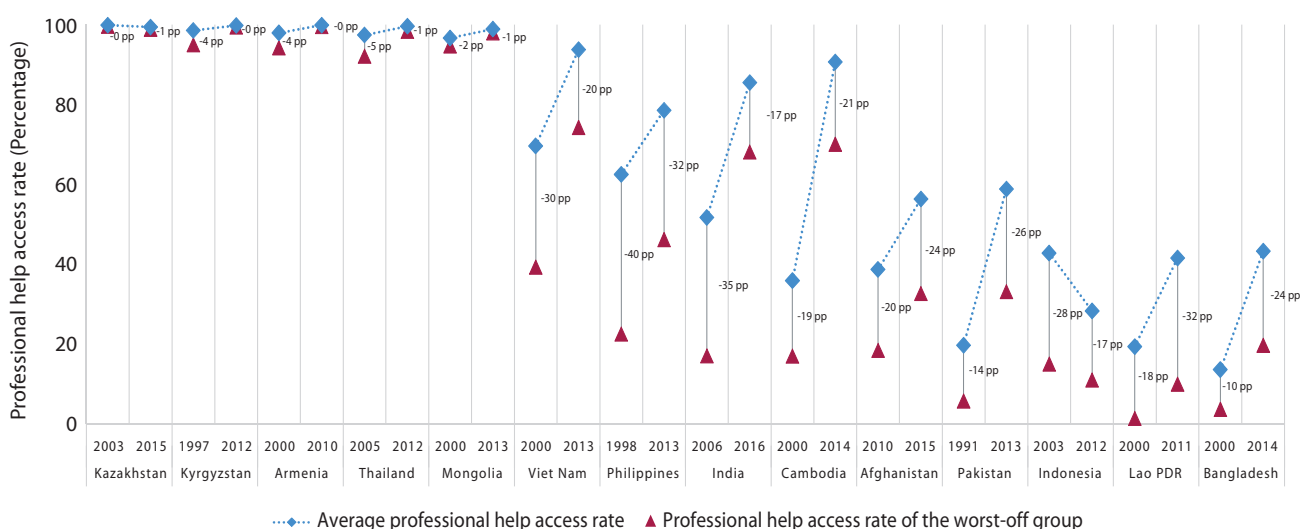


Source: ESCAP calculations, using data from the latest DHS and MICS surveys for countries in Asia-Pacific.

Note: The disadvantaged groups may not have the exact same composition in both surveys. However, the most disadvantaged groups always represent at least 10 per cent of the population and have at least one common circumstance.

Note 2: pp stands for percentage points.

Figure 2.17 Distance between the worst-off groups and the average in access to professional help during childbirth for women aged 15 to 49, Asia-Pacific countries, earliest and latest



Source: ESCAP calculations, using data from the latest DHS and MICS surveys for countries in Asia-Pacific.

Note: The disadvantaged groups may not have the exact same composition in both surveys. However, the most disadvantaged groups always represent at least 10 per cent of the population and have at least one common circumstance.

Note 2: pp stands for percentage points.

have had an important contribution to this development. In Cambodia, public health initiatives focusing on increasing the interval between births and reducing use of tobacco during pregnancy have contributed to the reduction in stunting.²⁵

Average rates of access to professional help during childbirth have increased in most countries (Figure 2.17). However, in most countries in South-East and South and South-West Asia, the distance between groups with the lowest access and the average increased. On the other

hand, Armenia, India, Kyrgyzstan, the Philippines and Viet Nam saw impressive increases, both in terms of average access and in closing the gaps with the most marginalized groups.

Viet Nam, for example, prioritized reducing maternal mortality (MDG 5) through the Strategy for Protection and Care of the People's Health 2001-2010, as well as the Reproductive Health Strategy 2001-2010. In the Philippines, the Philhealth programme introduced in 1997 was designed to provide access to health care for

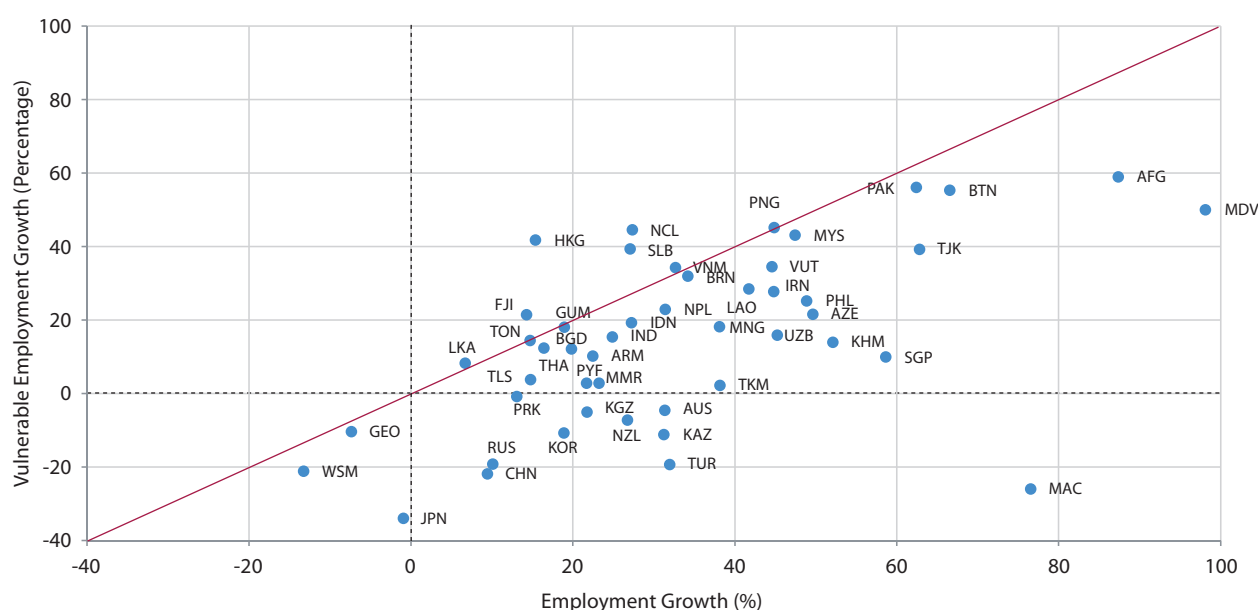
the underprivileged, the sick, older persons, persons with disabilities and women and children. The continuous expansion and strengthening of Philhealth may have contributed to the observed progress.²⁶

Based on alternative data sources, access to a decent job reveals a disconnect between overall employment growth and decent job growth. Behind this disconnect is the nature of economic growth.²⁷ As populations continue to expand in many countries in the region, creation of decent jobs has failed to meet the rising numbers of new labour market entrants. With no alternative, people are forced to accept whatever jobs are available.

The extent of vulnerable employment is illustrated for the period 2000-2015 in Figure 2.18. In countries above

the diagonal line, such as Fiji, Papua New Guinea and Sri Lanka, vulnerable employment increased faster than overall employment. In countries below the diagonal line, but above the horizontal dotted line, which is the majority of the region's developing countries, overall employment increased faster than vulnerable employment, indicating a falling share of vulnerable jobs. Nevertheless, there was still an increase in the absolute number of vulnerable workers. In Afghanistan, Bhutan and Pakistan, for example, the overall employment increase of 60 to 80 per cent was accompanied by a 50 per cent increase in vulnerable employment. Only in a few countries, located below the dotted line, did the absolute number of vulnerable workers fall — as in China, the Russian Federation and some OECD members.²⁸

Figure 2.18 Change in total employment and in vulnerable employment, 2000-2015



Source: ESCAP calculation using ILO (2017), KILM (9th edition).

While not all workers in the informal economy are poor, there is a frequent overlap; trapped in hazardous, low-paid jobs without any protection or security, these workers have few opportunities to escape poverty.²⁹ Meanwhile, wages in Asia-Pacific are growing faster than in any other region, and grew by 4 per cent in 2015, suggesting a widening gap between those benefiting from economic growth and productivity increases and those left behind.³⁰

2.7 CONCLUSIONS AND RECOMMENDATIONS

Positive progress in reducing the gaps between those furthest behind and an average household is mostly seen in countries that have prioritized investments in the social sector, including through social protection. The

level of economic development, whether a country is in the low, lower-middle or upper-middle income bracket, has a bearing on inequality of opportunity, but not as much as its social development policies.

The superior performance of many lower-middle income countries from North and Central Asia, but also Bhutan, India, Mongolia, the Philippines and Viet Nam, particularly in education and health, point to that finding. For household-based opportunities, prioritization of investments in basic water and sanitation, energy and financial services has been stronger in upper-middle income countries. However, certain lower-middle income countries also stand out, including most North and Central Asian countries, India, Viet Nam and some Pacific Islands.

These findings suggest that certain policies and institutions can help close the gaps in terms of access to opportunities.

Broaden social protection coverage

- Social protection policies are key to reducing inequality, increasing prosperity, resilience and empowerment and ensuring that “no one is left behind”. Expanding social protection to all supports low-income families through cash transfers, or other income-support mechanisms with strong multiplier effects on the economy as these groups tend to spend the extra income on domestic goods and services. It also insures against risks such as disasters, illness and unemployment, impacts of which can be life-threatening, particularly for vulnerable groups with no financial reserves.

Make education affordable, accessible, and relevant for all

- A well-educated population is fundamental for all spheres of development. National education systems should therefore encourage and facilitate higher education attainment and at the minimum improve secondary completion rates for all population groups. This is particularly important for those living in rural areas. The quality of education also needs to be strengthened by investing in teachers’ education and training, school equipment and infrastructure. It is finally critical that current curricula correspond to future labour market needs and smoothen the school-to-work transition.

Ensure that health-care services are affordable, accessible and universal for life

- Access to affordable essential health care is central to leading healthy lives and a key determinant of equality. Poor access to affordable health-care services, often combined with material deprivation and social exclusion, creates or perpetuates inequality traps. As a core component of building national social protection floors, countries need to invest in universal access to a nationally defined set of goods and services, constituting essential health care, including maternity care, that meets the criteria of availability, accessibility, affordability, acceptability and quality. As health challenges vary throughout the life cycle, services need to cater to the health-care needs of all ages and all parts of the country including rural areas. Health care should also be complemented by access to other services required to sustain the basic living conditions for good health, such as sufficient nutrition, clean drinking water, sanitation, electricity and clean fuels, as well as basic shelter.

Protect and promote the rights of women

- Women and girls are excluded from mainstream development more often than men and boys. It is therefore paramount that their rights and participation be placed at the centre of all policymaking. Gender equality is not only a fundamental principle of human rights, but is also a vital component to effectively meet future needs and challenges in Asia and the Pacific. Public policies should uphold and mainstream gender equality in all spheres of life.

Closing rural-urban gaps in public service delivery

- Physical access and mobility constraints compound inequality of opportunities. For example, access to health care, education and decent jobs in rural areas are often constrained by a lack of infrastructure, including transport connections. Removing these bottlenecks can also encourage labour mobility and create opportunities for income-generating activities.

Improve effective service delivery

- Strong political commitment, broad public support as well as capable and accountable institutions governed by transparent regulatory frameworks are prerequisites for effective service delivery. Ineffective administration, weak rule of law, corruption, and lack of regulatory frameworks influence operational capacity to generate change and disproportionately harm the poorest and most vulnerable segments of society.³¹ Simply allocating more public resources without reforming governing principles may therefore not have the desired impact.

Encourage multi-sectorial and multi-stakeholder collaboration

- To reach population groups at the highest risk of being left behind, policy reforms need to be underpinned by multisectoral and multi-stakeholder involvement at all stages, from development and design to implementation and monitoring. Given the diversity of circumstances impacting individual and household decisions and opportunities, such involvement and coordination are imperative for creating opportunities and incentives for households.

Improve the quality of services and opportunities provided

- An underexplored area is the importance of ensuring the quality of services. Even when education and health services are publicly provided, they may not be of adequate quality, pushing wealthier individuals to seek private options. Those who can afford to pay privately for better health-care or education services will do so. Those who cannot are left with no option,

but the publicly available service and they may have to settle for a lower-quality job, a disadvantaged location for their home and the prospect of unclean fuels and poor sanitation solutions. Inequality of opportunity, and gaps in the quality of opportunities afforded, often result from income and wealth inequality and become a driving force for intergenerational inequality and for trapping people and communities in a vicious cycle of persisting poverty and exclusion.

Bolster capabilities to understand inequality of opportunity through disaggregated data analysis

- To identify those at risk of being left behind and to direct policymaking at certain population groups, national data collection needs to allow for better disaggregation. Additional research also needs to capture how unequal opportunities impact individual aspirations and household possibilities and why certain individuals and households may, for example, take their children out of school or continue using unclean energy options, while other, sometimes neighbouring households will not. This chapter has used innovative analytical methods to analyse available surveys. However, the number of countries with available surveys were limited and the surveys did not provide answers to important questions, such as the quality of education or the perception

of inequality. With the availability of more and better data, countries will be better placed to take advantage of the wide array of analytical tools available to them.

Inequality of opportunity and gaps in quality are not limited to services provided by the State. It expands to daily choices around what transportation means to use, what phone device to buy and what news sources to rely on. Increasingly, these services are provided by the private sector. As chapter 4 will show, the incredible technological progress that has underpinned growth over the past decades has afforded people in Asia and the Pacific a vast choice of products and services to choose from. Yet, what is affordable for those earning around US\$1.90 a day is not comparable with what the elites or the growing middle class across the region can enjoy.

Before exploring the interaction of technology with inequality, chapter 3 analyses in more depth inequalities in the quality of the environment people live in or access to meet basic needs and generate livelihoods. It describes how disadvantaged groups are often disproportionately exposed to the hazards of environmental degradation and less able to protect themselves and recover from various environmental impacts.

ENDNOTES

¹ See Ravallion, (2016).

² United Nations Development Programme (UNDP) (2013).

³ Ravallion, (2016).

⁴ United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2018a) (forthcoming).

⁵ Canning and Schultz (2012).

⁶ United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2018d) (forthcoming).

⁷ See World Health Organization (WHO) (2018), available at: http://www.who.int/gho/phe/water_sanitation/burden_text/en/

⁸ See World Bank (2013), available at: <http://www.worldbank.org/en/news/feature/2013/08/30/whats-a-toilet-worth-infographic>

⁹ United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2017a).

¹⁰ United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2017a) Available from <https://www.adb.org/sectors/energy/issues/access-energy>.

¹¹ Habtezion, (2013).

¹² Sovacool, (2013).

¹³ Access to full-time employment is used as a proxy for decent work in this paper. Decent work is not easy to measure. To identify gaps in the labour force in terms of access to decent work, this analysis uses the “employed full-time for an employer index” in the Gallup survey as a proxy. In practice, this index is a subset of the ILO’s ‘non-vulnerable’ employment classification, which includes wage and salaried workers together with employers. The ‘vulnerable,’ on the other hand, are own account workers and contributing family members. For more information, please see United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2018b) (forthcoming).

¹⁴ The decomposition of other opportunities can be found in a series of policy papers available here: <http://www.unescap.org/our-work/social-development/poverty-and-inequality/resources>

¹⁵ The D-index for stunting measures the inequality in distribution of non-stunted children among all groups of children.

¹⁶ United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2018c) (forthcoming).

¹⁷ United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2018a) (forthcoming).

¹⁸ United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2018b) (forthcoming).

¹⁹ Data on the D-index decomposition is available upon request.

²⁰ The wealth index, which has been used for this analysis, is a composite index reflecting a household's cumulative living standard that is developed by the DHS and MICS researchers and combines a wide range of household assets and characteristics.

²¹ A full description of the methodology and algorithm is available in the Annex of the relevant Policy Paper series, such as ESCAP (2018a).

²² The Annex 2.3 tables do not show the composition of the most advantage group (highest attainment rate), but this information is available upon request.

²³ United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2018e) <http://www.socialprotection-toolbox.org/practice/philippines-conditional-cash-transfer-families>

²⁴ United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2018c) (forthcoming).

²⁵ Ikeda et.al (2013).

²⁶ United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2018e). <http://www.socialprotection-toolbox.org/practice/philippines-health-care-programme>

²⁷ International Labour Organization (ILO) (2009). http://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/documents/publication/wcms_115087.pdf

²⁸ United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2017b).

²⁹ International Labour Organization (ILO) http://www.ilo.org/wcmsp5/groups/public/—ed_emp/—emp_policy/documents/publication/wcms_212689.pdf

³⁰ International Labour Organization (2016).

³¹ United Nations, Department of Economic and Social Affairs (DESA), United Nations Development Programme (UNDP), United Nations Educational, Scientific and Cultural Organization (UNESCO) (2012).