Policy Paper

INEQUALITY OF OPPORTUNITY:

WHO ARE THOSE LEFT BEHIND?

MALDIVES and other Asia-Pacific SIDS

UNITED NATIONS
ESCAP
Economic and Social Commission for Asia and the Pacific

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1. EXECUTIVE SUMMARY

Through two new methodological tools (the dissimilarity index and the CART methodology), it is possible to measure inequality in the distribution of basic services and identify the furthest behind in the same development areas.[1]

Which opportunities are most unequally distributed?

The first methodology measures inequality of opportunity, by reviewing how different groups fare in terms to access to a certain opportunity, or the prevalence of a certain barrier. This is done through the dissimilarity index (D-Index), which, like the Gini coefficient, ranges from 0 to 1, where 0 indicates no inequality, and 1 indicates that the entire access to a service or prevalence of a barrier is reserved to a specific group of people with shared circumstances (e.g., men from urban areas). In the Maldives, the D-Index – and therefore inequality – is highest in completion of higher education, followed by women's demand for family planning satisfied with modern methods and completion of secondary education.

When aggregating the D-Index across all opportunities and barriers, the Maldives is faring relatively well compared to other Asia-Pacific countries (6th of 26 countries analyzed) and very well compared to other Small Island Developing States (SIDS; 1st out of 6 countries analyzed). On aggregate, inequality across all indicators, as measured by D-Index, is estimated at 0.07 in the Maldives, compared with 0.04 in Kazakhstan (the region's lowest) and 0.27 in Papua New Guinea (the region's highest).

Who are the furthest behind?

The second methodology identifies those furthest behind in access to opportunities or those who face the highest barriers. An algorithm, following the classification and regression tree (CART) methodology, separates households or individuals with shared circumstances into different groups based on significantly different access levels. The result generates groups, with intersecting circumstances or disadvantages that have distinctly different levels of access to an opportunity (or prevalence of a barrier).

Among the 10 indicators considered (6 opportunities and 4 barriers), the largest gaps between the furthest behind and the furthest ahead groups are found in access to internet and ability to protect from COVID-19. For internet use, the furthest behind group, with only 43 percent access rate, consists of women with lower education. This is a 55-percentage point gap from the furthest ahead group. The furthest behind group in ability to protect from COVID-19 are individuals living in urban areas, where only 30 per cent live in households which home environment is fit to protect them from COVID-19.[2]

What about regional specificities?

The analysis is repeated within each region in Maldives. There are six statistical regions in the DHS 2016 survey: Central, Malé, North Central, North, South Central, and South. On average, Central is home to 4 out of the 10 lowest access or highest prevalence of a barrier levels (completion of secondary and higher education, physical and sexual violence against women, and wasting in children under 5 years of age), followed by North with 2 out of 10 (internet use and bank account). When considering the furthest behind groups, Central is home to 3 out of the 10 of those with lowest access or

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[1] The indicators considered follow related SDG indicator definitions, except ability to protect from COVID-19, which is an index developed by the United Nations ESCAP. See Annex.

[2] The set of circumstances considered is different for each indicator. For example, for indicators with "households" as the reference group, the following circumstances are considered: wealth, residence and education (highest in the household). For indicators with "individuals" (women, or children) as the reference group, an additional set is considered: sex, age group, as well as mother's education and number of children under 5 years of age.

highest prevalence of a barrier (completion of secondary and higher education, and wasting in children under 5 years of age), followed by South with 3 out of 10 lowest access or highest prevalence of a barrier (women's demand for family planning satisfied with modern methods, prevalence of sexual or physical violence against women, and stunting in children under 5 years of age).

Unexpected findings

It is expected that the furthest behind groups generally belong to the bottom 40 of the wealth distribution and/or have lower educational attainment (in 6 out of 10 indicators). However, some other findings are less intuitive. For example:

- For women's demand for family planning satisfied by modern methods, age group appears to be by far the most influential factor in determining access. Wealth and area of residence do not register as significant circumstances, and education is only relevant for the group of women aged 35 or older.

- In 4 out of 5 of the other SIDS, wealth distribution and/or biological sex are important circumstances for identifying the group that is furthest behind for wasting in children under 5 years of age. However, in the Maldives, neither of these factors are part of the group that is furthest behind, which instead consists of children with 2 or more siblings under the age of 5 and whose mother has lower or secondary education.

Intersecting circumstances that shape the furthest behind groups in the Maldives

Opportunity or barrier/ Circumstances	Who are those left behind in Maldives?							
	Wealth	Residence	Education	Gender	Mother education	Children under 5 years of age	Age group	Electricity
Bank account	B40		Lower education	n/a	n/a	n/a	n/a	n/a
Higher education	B40	Rural	n/a	Female	n/a	n/a	n/a	n/a
Internet use			Lower education	Female	n/a	n/a		
Ability to protect from COVID-19		Urban			n/a	n/a		n/a
Demand for family planning satisfied with modern methods				n/a	n/a		15 - 24 years old	n/a
Overweight in children under 5 years of age		n/a		Male		Less than 2 children under 5 years of age	n/a	n/a
Secondary education	B40	Rural	n/a		n/a	n/a	n/a	n/a
Sexual or physical violence against women	B40			n/a	n/a	No children under 5 years of age	25 - 34 years old	n/a
Stunting in children under 5 years of age			n/a	Male		3 or more children under 5 years of age	n/a	n/a
Wasting in children under 5 years of age			n/a		Lower or secondary education	3 or more children under 5 years of age	n/a	n/a

Source: ESCAP calculations using data from the latest DHS (2016-2017)
Note: The circumstances considered differ for each opportunity. A blank space in the table suggests that the indicator was part of the model and did not appear as significant. An "n/a" notation means that the indicator was not part of the model.

Uses and limitations

These findings are of direct use for generating discussions on transformations needed to "leave no one behind" and reach the "furthest behind first" as pledged in the 2030 Agenda for Sustainable Development. Considering the grave impacts of the evolving COVID-19 pandemic, the groups that are furthest behind need to be brought into focus more urgently than ever.

There are many circumstances shaping access to different opportunities or the experience of a certain barrier. The analysis in this booklet is restricted to circumstances (variables) available in the Demographic Health Survey for the Maldives. Furthermore, these circumstances define the composition of the groups, but should not be interpreted as causes of a lower access.

1. INTRODUCTION

The ESCAP *Inequality of Opportunity* analysis uses two new methodological tools to measure inequality in the distribution of basic services and to identify the furthest behind in the same development areas. In both methods, population groups are defined by common circumstances over which the individual has little or no direct control.

The analysis in the Maldives explores inequality in 10 areas affecting a person's life prospects (6 opportunities and 4 barriers): bank account ownership, internet use, completion of secondary and higher education, women's demand for family planning satisfied with modern methods, ability to protect from COVID-19, prevalence of sexual or physical violence against women, and prevalence of stunting, wasting and overweight in children under 5 years of age.

This report starts by reviewing overall inequality of opportunity levels, situating Maldives **among other Small Island Developing States** (section 2). It then zooms into Maldives to identify the shared circumstances of population groups that are left furthest behind in areas with significant inequality (section 3).

1.1   Scope of the analysis

In Maldives, 6 opportunities and 4 barriers are identified where significant inequality prevents people from fulfilling their potential. The variables are selected based on availability in the DHS dataset, their link to SDG indicators and their importance for overall development.

Bank account ownership: Owning a bank account encourages saving, enables people to obtain loans and provides a secure channel for payments in the form of remittances, government cash transfer and salaries. Inequality in access to formal financial services amplifies existing divisions in communities and societies.

Internet use: ICTs are indispensable in boosting productivity and economic activity, enabling knowledge and information sharing, and broadening the delivery of services. Inequality in the use of the internet creates deep divides that are expected to amplify as technology reshapes lives.

Completion of secondary and higher education: Inequality in education matters because more education often results in better jobs, with higher incomes and a chance to break patterns of poverty and vulnerability. Inequality in child nutrition, access to basic sanitation and clean fuels is also associated with inequality in educational attainment.

Demand for family planning satisfied with modern methods: Use of modern contraceptive methods remains the first step towards positive sexual and reproductive health outcomes for all women. Inequality in the use of modern contraceptives renders some women more likely to experience unintended pregnancies, which can result in disability and even death. Tightly spaced births also have significant cognitive and nutritional consequences for children.

Ability to protect from COVID-19: The ability to protect from COVID-19 is an index constructed by the United Nations ESCAP defined as follows: The household has access to the internet, TV, phone, mobile phone or radio; the household has water pipes into the dwelling or yard or other private water source; the household has a handwashing facility on premises with soap and water available; there are no more than 2 people per sleeping room in the household; the household has a toilet which is not shared with other households.

Sexual or physical violence against women: gender-based violence is a violation of women's human rights and a major public health problem. It keeps women from contributing to social, economic, and political development in their communities while affecting their well-being. Ending violence against women is paramount to ensure women's economic autonomy and security.

Stunting, wasting and overweight in children under 5 years of age: Inequality among children's nutrition levels matters because proper nutrition provides the foundation upon which developmental progress is built. As children receive poorer nutrition, they are therefore more likely to stunted and wasted and face cognitive and developmental consequences of malnutrition in the long-term. Similarly, overweight can lead to serious health consequences such as cardiovascular diseases and diabetes.

1.2   Relevance in the context of COVID-19

The results of this analysis are as timely as ever. The COVID-19 pandemic has highlighted the need to consider and address the vulnerabilities of the most marginalized segments of the population. While everyone can become infected, people living in poverty or who are otherwise disadvantaged may be less well equipped to cope with the socioeconomic impacts of this health crisis.

For example, the internet has proved crucial for navigating the new realities brought about by the COVID-19 pandemic. Access to the internet equates access to crucial health information. It also enables connections amidst social distancing measures and helps mitigate some of its economic effects, by allowing working from home, e-commerce and e-learning. Groups with the limited access and use of the internet may cope less well with the social and economic consequences of the pandemic.

Closures of universities and other educational institutions due to the pandemic could exacerbate the gap in secondary and higher education completion. The socioeconomic disadvantages of the furthest behind groups may therefore hamper their ability to follow e-learning from their place of residence. Women might face added pressures to abandon their studies, while students in households without internet access would likely fall further behind. Similarly, school and health clinic closures may also restrict access to sexual and reproductive health education or services among younger women.

Inequality in these areas was already concerning before the pandemic. As of 7 May 2021, 33,368 cases had been registered in the Maldives. While there are relatively fewer cases than in other countries, the consequences of the pandemic will reverberate globally. Its lessons must also reach citizens of all countries. This analysis will help focus the attention of the UN Country Team and the Government of Maldives to reach the furthest behind first.

2 MEASURING INEQUALITY OF OPPORTUNITY

What is the D-Index?

Rising inequality is a concern across the developed and developing world alike. Sustainable Development Goal 10 highlights the pressing need to reduce inequality in all its forms.

Inequality refers to the unequal distribution not only of income and wealth, but also of opportunities and services. **Inequality of opportunity undermines the realization of human rights and constitutes a barrier for social mobility.**

The dissimilarity index (D-Index) measures how different groups - such as women, poorer households, or rural residents - **fare in terms of access to a certain opportunity,** or how different groups disproportionately experience a certain barrier. Like the Gini coefficient, the D-Index ranges from 0 to 1, where 0 indicates no inequality, and 1 indicates that the entire access to a service is reserved to a specific group of people with shared circumstances (e.g. men from urban areas).

Building the D-Index

To obtain the D-Index, inequality in access to an opportunity (or in the prevalence of a barrier) is generated by the formula:

$$D = \frac{1}{2\bar{p}} \sum_{i=1}^{n} \beta_i |p_i - \bar{p}|$$

- β_i is the proportion of the group i in the sample, (sum of β_i equals 1)
- $\bar{p}$ is the average access rate in the country
- p_i is the level of access of population group i, and takes values from 0 to 1
- n is the number of groups defined by different circumstances

Based on the interactions between circumstances, the entire sample is divided into distinct population groups. The D-Index is therefore the weighted average of the absolute difference between distinct population groups with shared circumstances and the average access rate in the country ($\bar{p}$). The analysis draws on data from latest available Demographic and Health Surveys (DHS) or Multiple Indicator Cluster Surveys (MICS).

Which opportunities or barriers is ESCAP measuring?

Household opportunities
- access to basic drinking water
- access to basic sanitation
- access to electricity
- access to clean fuels
- ownership of a bank account
- use of the internet

Individual opportunities
- completion of secondary education
- completion of higher education
- demand for family planning satisfied with modern methods
- access to skilled birth attendance during childbirth
- ability to protect from COVID-19

Individual barriers
- prevalence of stunting, wasting and overweight in children under 5 years of age
- prevalence and attitude towards violence against women

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## 2.1 Average D-Index in Asia and the Pacific, by opportunity or barrier
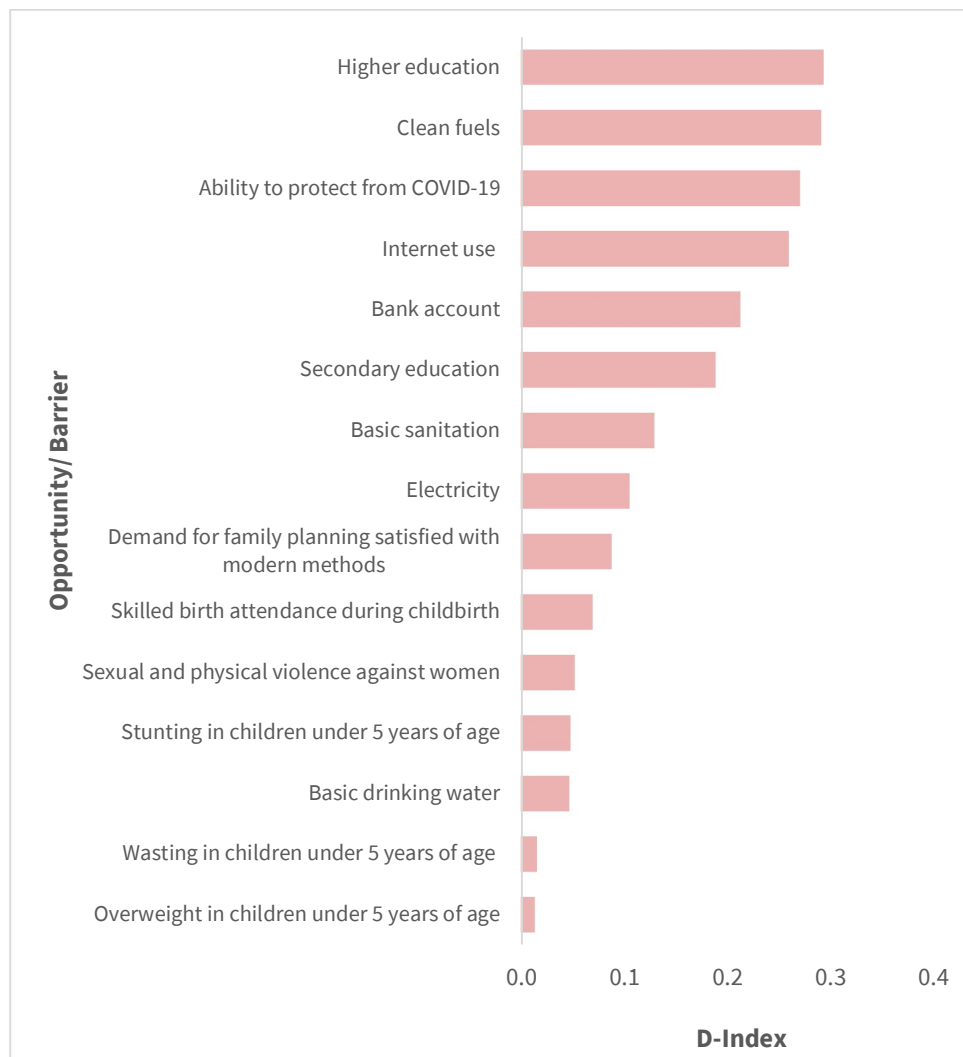
Source: ESCAP calculations using data from the latest DHS and MICS for 26 countries in Asia and the Pacific.

Note: The D-Index for bank account ownership, demand for family planning satisfied with modern methods, internet use, ability to protect from COVID-19, prevalence of violence against women, and prevalence of stunting, wasting, and overweight in children under 5 years of age reflect data from fewer than 26 countries, because some surveys did not ask these questions. The analysis has been adapted so that the D-Index of a barrier (e.g. prevalence of stunting) still has the same interpretation as that of an opportunity: the lower the D-Index the lower the inequality.

## 2.2 Average D-Index in Asia and the Pacific, by country
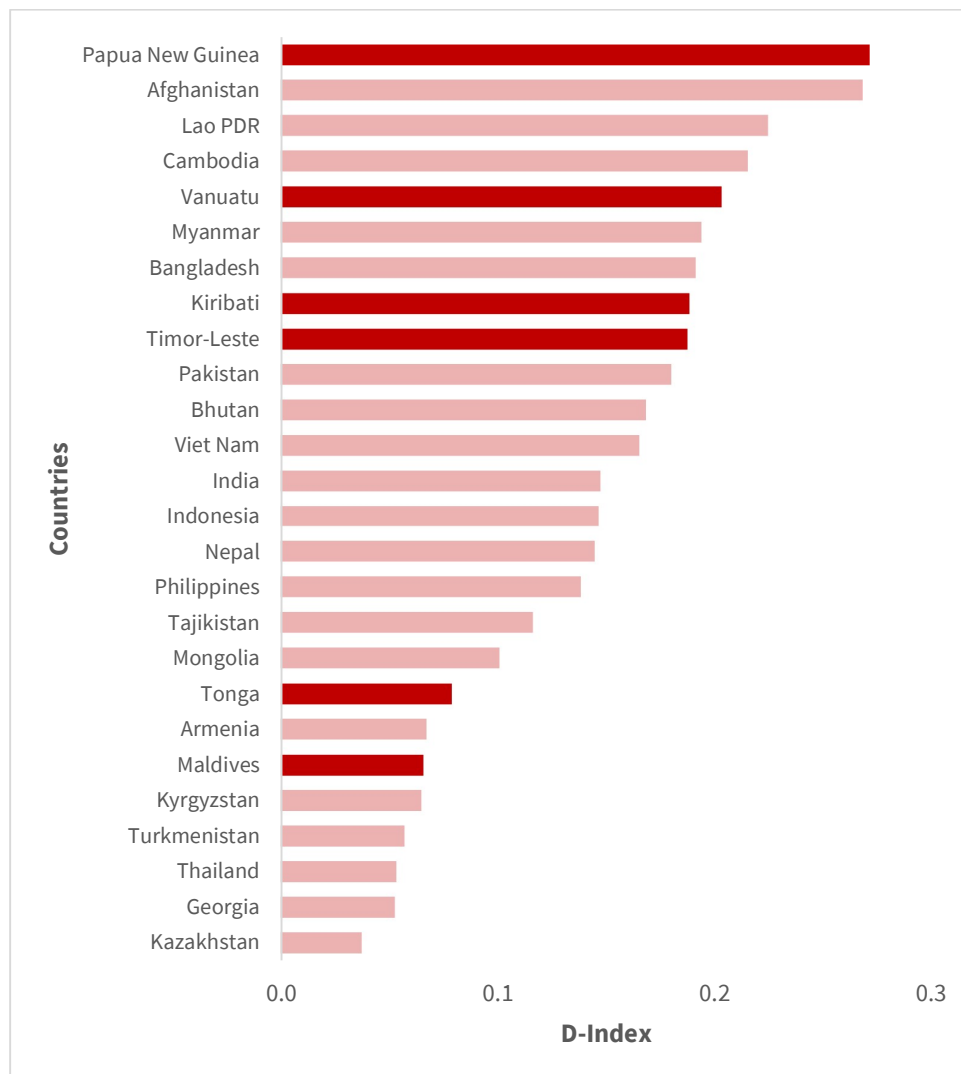
Source: ESCAP calculations using data from the latest DHS and MICS for all Asia-Pacific countries, highlighting the 6 Small Island Developing States located in the region: Kiribati (2019), Maldives (2017), Papua New Guinea (2018), Timor-Leste (2016), Tonga (2019), and Vanuatu (2007).

Note: The D-Index for bank account ownership, demand for family planning satisfied with modern methods, internet use, ability to protect from COVID-19, prevalence of violence against women, and prevalence of stunting, wasting, and overweight in children under 5 years of age reflect data from fewer than 26 countries, because some surveys did not ask these questions. The analysis has been adapted so that the D-Index of a barrier (e.g. prevalence of stunting) still has the same interpretation as that of an opportunity: the lower the D-Index the lower the inequality.

2.3   D-Index in Maldives, by opportunity or barrier
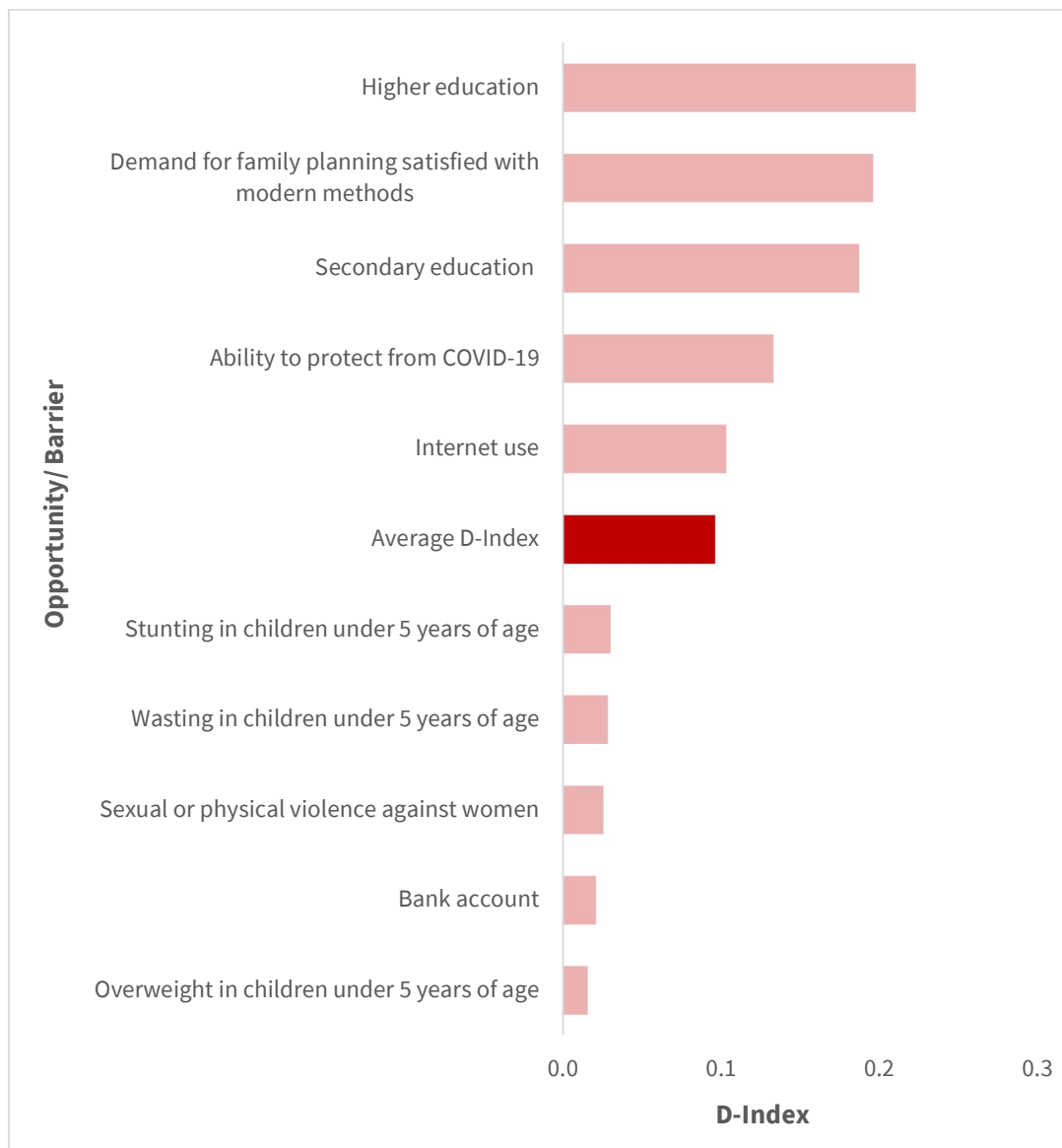
Source: ESCAP elaboration with data just from the Maldives, latest DHS (2016-2017).

Note 1: Access to electricity, basic drinking water, basic sanitation, clean fuels, and skilled birth attendance during childbirth are not shown because average access of the population is above 98 per cent.

Note 2: In general, the D-Index measures the distribution of a positive outcome. Prevalence of sexual or physical violence against women and prevalence of stunting, wasting and overweight in children under 5 years of age are not positive outcomes, but rather barriers for women's and children's fulfilment in life. To calculate the D-Index for these barriers, while keeping the same interpretation as for other positively defined indicators (opportunities), the *absence* of sexual or physical violence against women and prevalence of stunting, wasting and overweight under 5 years of age is first calculated. The remaining calculations follow the same formula as for standard positively defined indicators.

3 IDENTIFYING THE FURTHEST BEHIND

The classification and regression tree (CART) methodology

The commitment to leave no one behind is enshrined in the 2030 Agenda for Sustainable Development. **A methodological approach to identify those furthest behind in access to opportunities or those who face disproportionately higher barriers** is a first step towards guaranteeing that no one is left behind.

The classification and regression tree (CART) methodology is an analytical structure that identifies population groups with distinct access levels to opportunities or occurrence of barriers. A total of 6 opportunities and 4 barriers are considered, as shown in the next section. The analysis draws on Maldives' DHS 2016-2017.

Behind the classification and regression tree methodology is an algorithm that looks at each circumstance, separates households or individuals into different groups based on significantly different access levels and stops when no "information gain" can be generated by a new partition.[3]

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[3] For more information on the methodology, please see: ESCAP (2020). Leaving no one behind: A methodology to identify those furthest behind in accessing opportunities in Asia and the Pacific. Social Development Division Working Paper #2020-01.
Available from: https://www.unescap.org/resources/leaving-no-one-behind-methodology-identify-those-furthest-behind-accessing-opportunities

## 3.1   Who are the furthest behind in Maldives?

Bank account ownership

The classification tree shows that, on average, 96 per cent of households own a bank account. The red box shows the furthest behind group: households belonging to the bottom 40 per cent of the wealth distribution, where the highest education level is lower (none or primary), among which 87 per cent own a bank account (compared to all households in the best-off group).

Bank account (ownership), Maldives, 2017
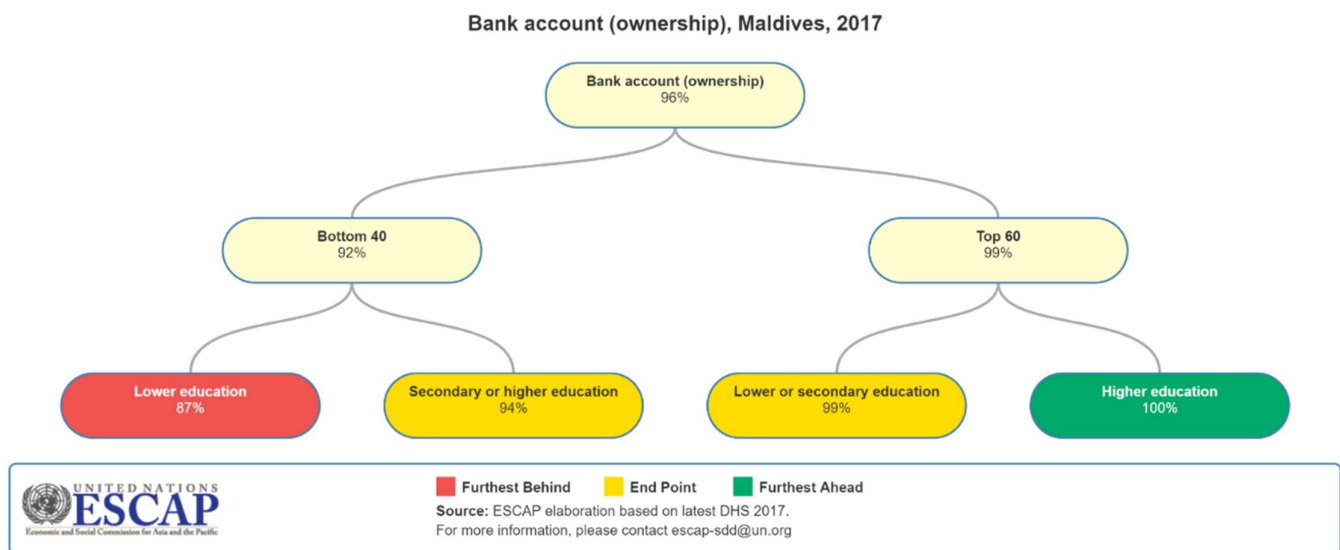
Access to bank account ownership in the Maldives is among the highest in the region's developing countries, and on par with Thailand, Mongolia, Turkmenistan. Compared to other Small Island Developing States, Maldives has the highest average rate of households owning a bank account. Its furthest behind group, households belonging to the bottom 40 per cent of the wealth distribution, where the highest education level is lower, also has the highest access. Tonga has the second highest average rate, not far behind the Maldives. The composition of the furthest behind group varies across Small Island Developing States, but belonging to the bottom 40 per cent of the wealth distribution and having lower education appear as the most important circumstances shaping bank account ownership.

Bank account ownership (continued)

Figure 3.1.1: Bank account ownership rates (country average, best-off, furthest behind), Asia-Pacific, latest year
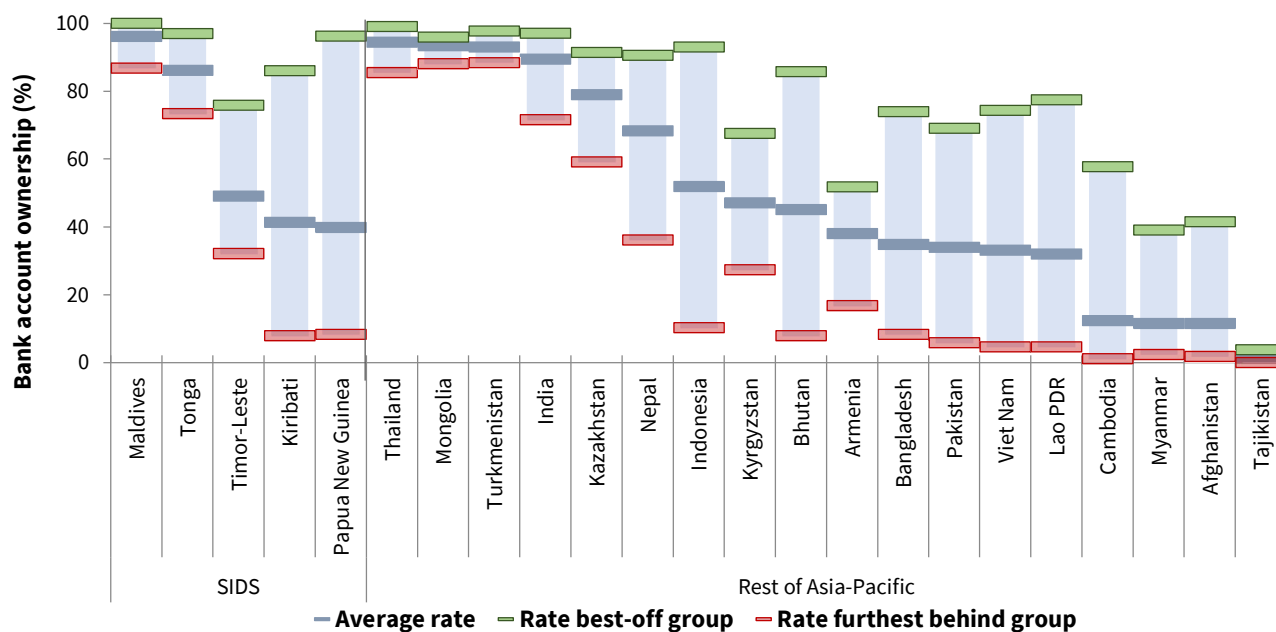
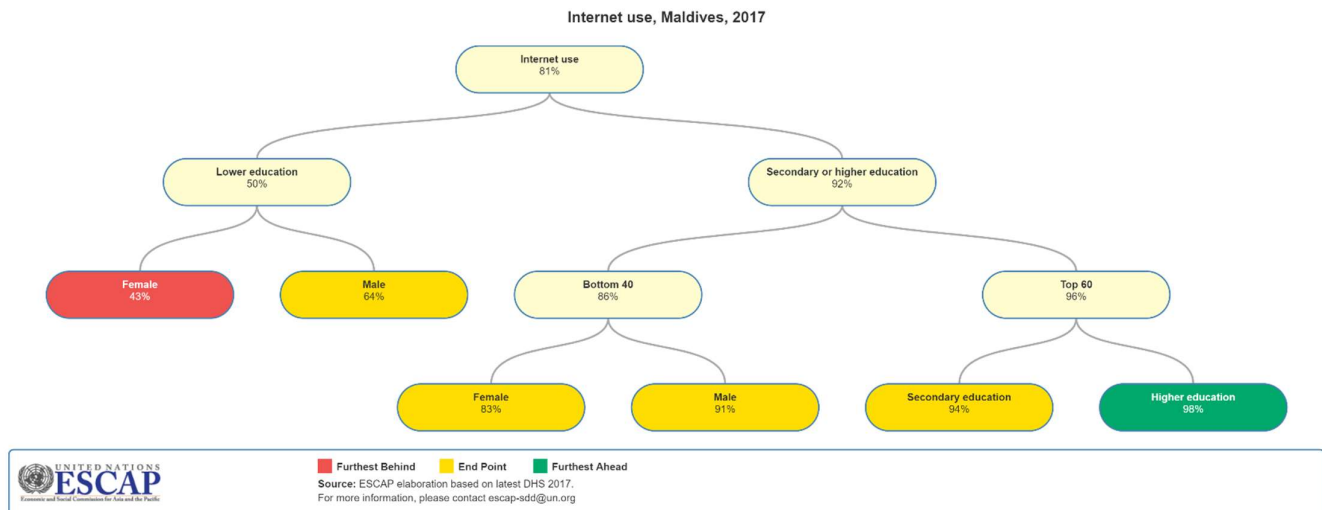Source: ESCAP calculations using data from the latest DHS and MICS

Table 3.1.1: Bank account ownership rates and composition of furthest behind group, SIDS, latest year

Source	Year	Country		Ref. pop (size)	Country average	Best-off (%)	Best-off (% of pop)	Furthest behind (%)	Furthest behind (% of pop)	Biggest gap in access	Circumstances of the furthest behind group
MICS	2019	Kiribati		3071	**41.30%**	**86.06%**	13.81%	**7.92%**	15.92%	78 pp	Poorer households with lower education
DHS	2017	Maldives		6050	**96.11%**	**100.00%**	25.47%	**86.84%**	12.96%	13 pp	Poorer households with lower education
DHS	2018	Papua New Guinea		16021	**39.79%**	**96.25%**	9.60%	**8.24%**	42.34%	88 pp	Poorer households
DHS	2016	Timor-Leste		11502	**49.09%**	**75.78%**	17.87%	**32.13%**	21.17%	44 pp	Poorer households with secondary education
MICS	2019	Tonga		2498	**86.10%**	**96.88%**	27.00%	**73.34%**	40.89%	24 pp	Poorer households
MICS	2007	Vanuatu			No analysis for this indicator						

Internet use

The classification tree shows that, on average, 81 per cent of individuals use the internet. The red box shows the furthest behind group: women with lower education, among whom 43 per cent use the internet (compared to 98 per cent in the best-off group).

Internet use, Maldives, 2017

Source: ESCAP elaboration based on latest DHS 2017.
For more information, please contact escap-sdd@un.org

Compared to other SIDS nations, the Maldives has the highest average internet use – just over 81 per cent. However, there is a substantial gap (55 percentage points) between the group that is furthest ahead, people with higher education in the top 60 per cent of wealth distribution, and the group that is furthest behind, women with lower education. The gap in internet usage between the groups that are furthest ahead and furthest behind is more than 50 percentage points for all SIDS nations except for Tonga. Relative to other Asia-Pacific countries, the Maldives has the third-highest average rate of internet use, behind only Kazakhstan and Armenia.

Internet use (continued)

Figure 3.1.2: Internet use (country average, best-off, furthest behind), Asia-Pacific, latest year
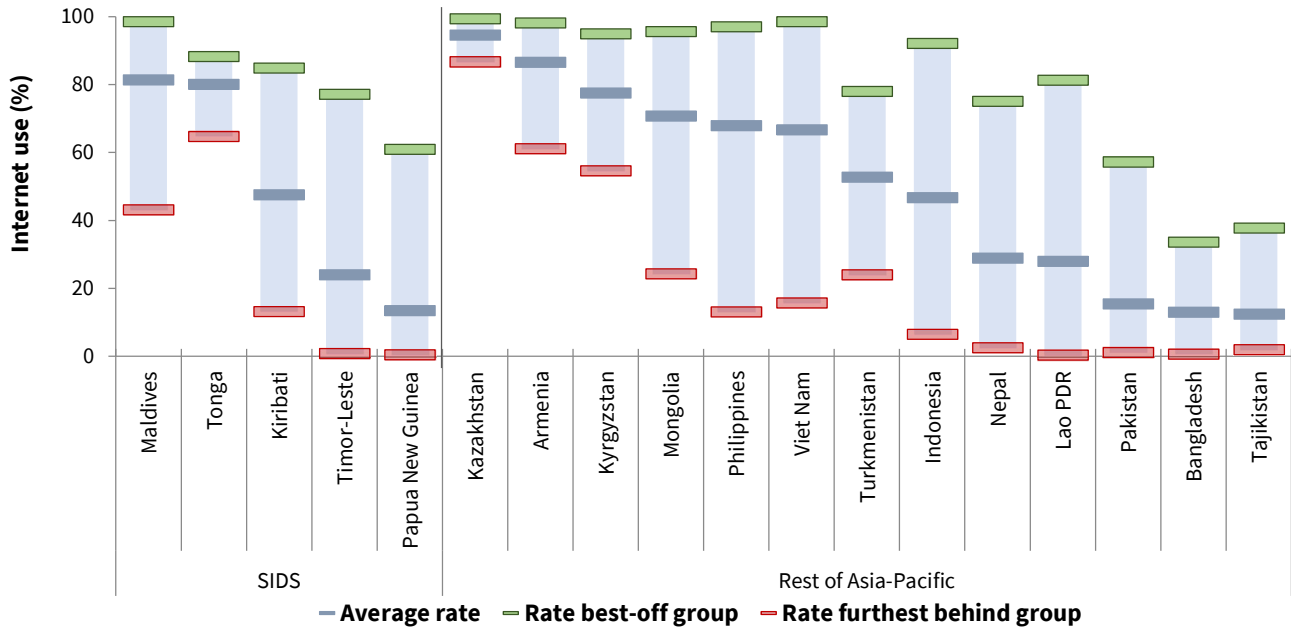
Source: ESCAP calculations using data from the latest DHS and MICS

Table 3.1.2: Internet use and composition of furthest behind group, SIDS, latest year

Source	Year	Country	Ref. pop (size)	Country average	Best-off (%)	Best-off (% of pop)	Furthest behind (%)	Furthest behind (% of pop)	Biggest gap in access	Circumstances of the furthest behind group
MICS	2019	Kiribati	6233	47.49%	84.80%	11.46%	13.14%	18.60%	72 pp	Poorer individuals over 25 years of age and with lower or secondary education
DHS	2017	Maldives	12041	81.36%	98.43%	15.10%	43.05%	16.91%	55 pp	Women with lower education
DHS	2018	Papua New Guinea	22531	13.44%	60.86%	12.18%	0.43%	29.44%	60 pp	Women over 25 years of age with lower education and living in rural areas
DHS	2016	Timor-Leste	17229	23.92%	77.11%	11.12%	0.73%	19.60%	76 pp	Individuals over 35 years of age and with lower education
MICS	2019	Tonga	4135	80.04%	88.26%	26.47%	64.70%	14.24%	24 pp	Poorer individuals over 35 years of age
MICS	2007	Vanuatu		No analysis for this indicator						

Source: ESCAP calculations using data from the latest DHS and MICS

Demand for family planning satisfied with modern methods

The classification tree shows that 29 per cent of women have their need for contraception satisfied with modern methods. The red box shows the furthest behind group: women between 15 and 24 years old, among whom 16 per cent have their need met with modern methods (compared to 39 per cent in the best-off group).

This indicator mirrors exactly the definition of SDG indicator 3.7.1 "Proportion of women aged 15-49 years who have their need for family planning satisfied with modern methods." It shows the percentage of women of reproductive age (15-49 years) who desire either to have no (additional) children or to postpone the next child **and** who are currently using a modern method of contraception. The indicator is also referred to as the demand for family planning satisfied with modern methods.

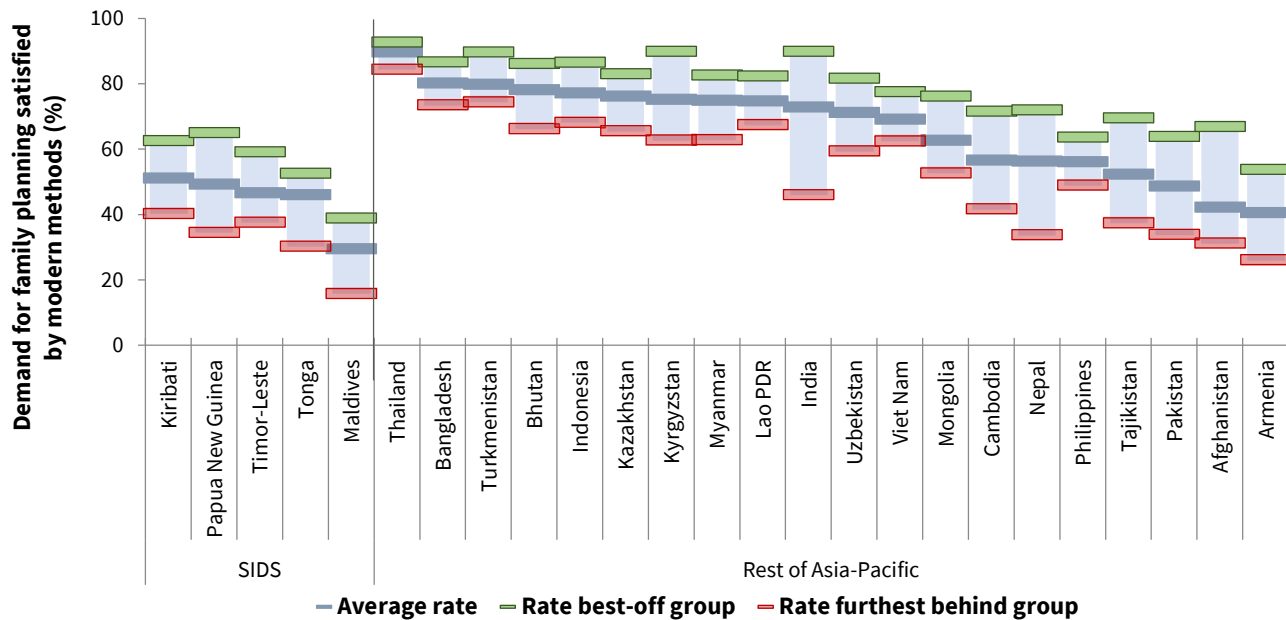Demand for family planning satisfied with modern methods, Maldives, 2017
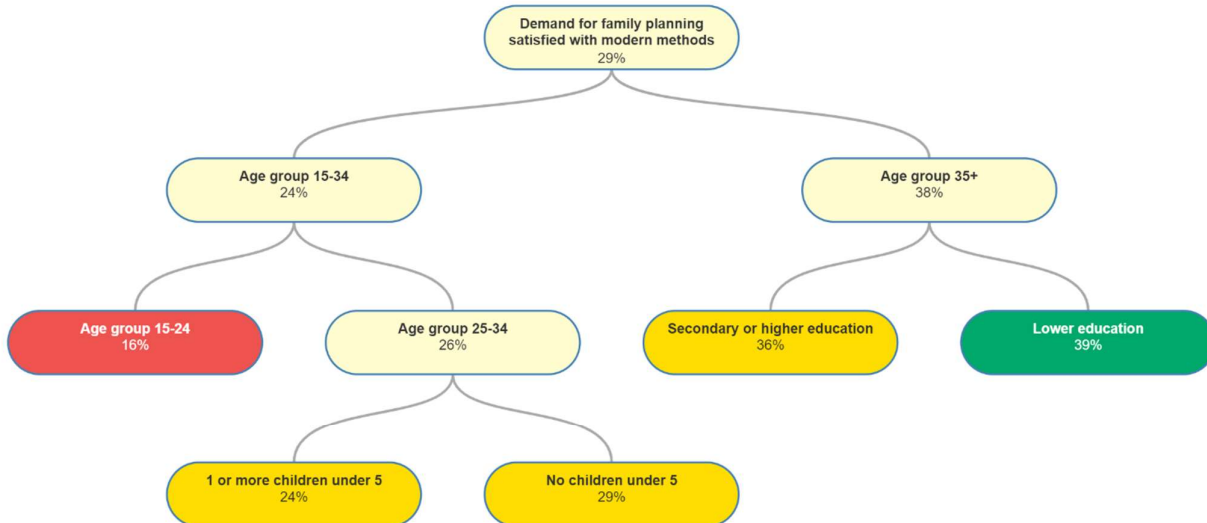
Access to modern family planning methods was low across the board in the Maldives: the average access rate of 29 per cent was the lowest of all Asia-Pacific nations analyzed. In fact, the average access rate in the Maldives was still lower than the furthest behind group in all but one other Asia-Pacific country. Surprisingly, among women aged 35 years or older, those with lower education had a higher rate of access than those with secondary or higher education. At 39 per cent, however, this "best-off" group still had a lower rate of access than the overall average of other SIDS nations. Age appears to be a critical factor for determining which women have their demand for family planning satisfied with modern methods. In every SIDS country except Papua New Guinea, the furthest behind group consisted of or included women aged 15-24. This is a critical finding considering the importance of family planning for many women in that age group.

Demand for family planning satisfied with modern methods (continued)

Figure 3.1.3: Demand for family planning satisfied with modern methods (country average, best-off, furthest behind), Asia-Pacific, latest year

Source: ESCAP calculations using data from the latest DHS and MICS

Table 3.1.3: Demand for family planning satisfied with modern methods, SIDS, latest year

| Source	Year	Country		Ref. pop (size)	Country average	Best-off (%)	Best-off (% of pop)	Furthest behind (%)	Furthest behind (% of pop)	Biggest gap in access	Circumstances of the furthest behind group
MICS	2019	Kiribati		1651	**51.09%**	**62.56%**	21.01%	**40.28%**	10.67%	22 pp	Women between 15 and 24 years of age and with less than 2 children under 5 years of age
DHS	2017	Maldives		2788	**29.39%**	**38.85%**	25.37%	**15.73%**	13.99%	23 pp	Women between 15 and 24 years of age
DHS	2018	Papua New Guinea		6907	**49.16%**	**65.00%**	9.43%	**34.47%**	19.88%	31 pp	Poorer women with less than 4 children under 5 years of age
DHS	2016	Timor-Leste		4003	**46.62%**	**59.14%**	23.27%	**37.57%**	25.59%	22 pp	Women between 15 and 24, or over 35 years of age with less than 4 children under 5 years of age
MICS	2019	Tonga		938	**45.91%**	**52.58%**	29.39%	**30.20%**	14.16%	22 pp	Women between 15 and 24 years of age
MICS	2007	Vanuatu			No analysis for this indicator						

Source: ESCAP calculations using data from the latest DHS and MICS

Sexual or physical violence against women

The classification tree shows that the prevalence of sexual or physical violence against women is 12 per cent. The red box shows the furthest behind group: poorer women between 25 and 34 years old and with no children under 5 years of age, among which 17 per cent have experienced sexual or physical violence from their partner over the last 12 months (compared to 8 per cent in the best-off group).

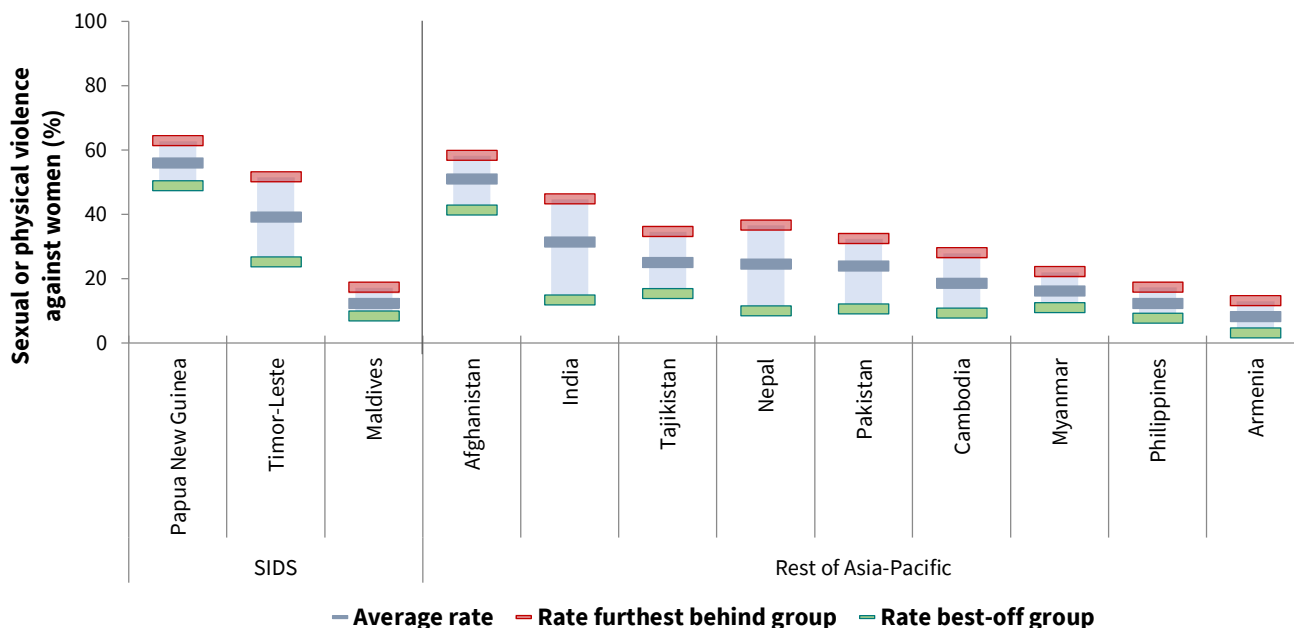Sexual or physical violence against women (over past 12 months), Maldives, 2017
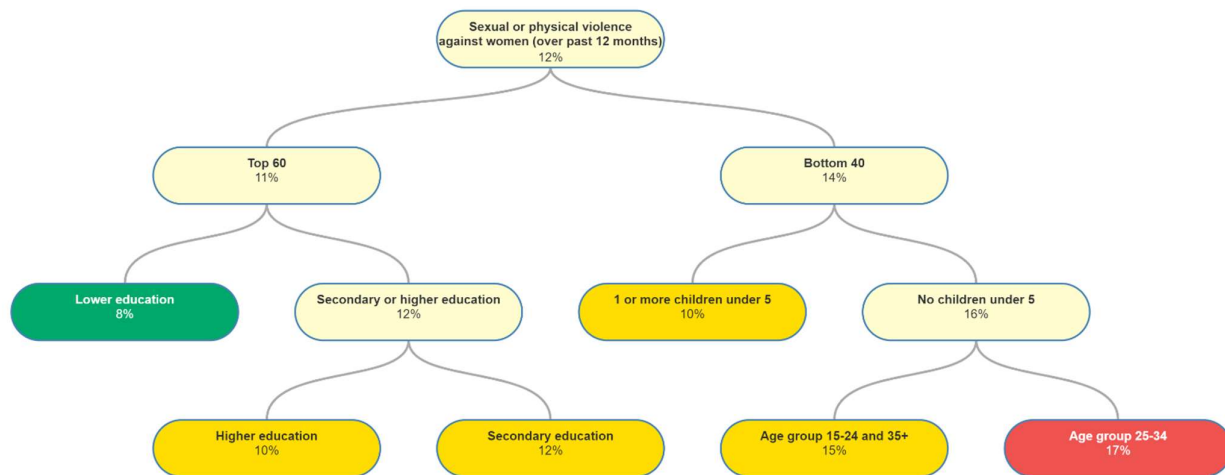
Sexual or physical violence against women occurs at a relatively low rate in the Maldives, compared to other Asia-Pacific nations analyzed. At 12 per cent, this is tied with the Philippines for the second lowest rate in the region, behind only Armenia. There is also a relatively small gap of only 9 percentage points between the group that is furthest ahead and furthest behind, the smallest among the three SIDS nations for which data is available. The group that is furthest behind in the Maldives, poorer women aged 25-34 without young children, is relatively similar to the group that is furthest behind in Timor-Leste, but very different from the group that is furthest behind in Papua New Guinea. Unfortunately, data reporting on the issue of sexual or physical violence against women is low across the region, complicating efforts to contextualize these numbers through comparison with other countries.

Sexual or physical violence against women (continued)

Figure 3.1.4: Sexual or physical violence against women (country average, best-off, furthest behind), Asia-Pacific, latest year

Source: ESCAP calculations using data from the latest DHS and MICS

**Table 3.1.4**: Sexual or physical violence against women, SIDS, latest year

Source	Year	Country		Ref. pop (size)	Country average	Best-off (%)	Best-off (% of pop)	Furthest behind (%)	Furthest behind (% of pop)	Biggest gap in access	Circumstances of the furthest behind group
MICS	2019	Kiribati			No analysis for this indicator						
DHS	2017	Maldives		3123	12.24%	8.43%	13.61%	17.27%	11.00%	9 pp	Poorer women between 25 and 34 years of age with no children under 5 years of age
DHS	2018	Papua New Guinea		4090	55.84%	48.85%	16.09%	62.92%	13.85%	14 pp	Richer women between 15 and 34 years of age with secondary or higher education
DHS	2016	Timor-Leste		3781	39.04%	25.18%	18.57%	51.64%	17.92%	26 pp	Poorer women between 25 and 34 years of age
MICS	2019	Tonga			No analysis for this indicator						
MICS	2007	Vanuatu			No analysis for this indicator						

Source: ESCAP calculations using data from the latest DHS and MICS

Secondary education completion

The classification tree shows that the average secondary education completion rate is 30 per cent. The red box shows the furthest behind group: poorer individuals living in rural areas, among whom 14 per cent have completed secondary education (compared to 41 per cent in the best-off group).

Secondary education (completion), 20-35 years old, Maldives, 2017
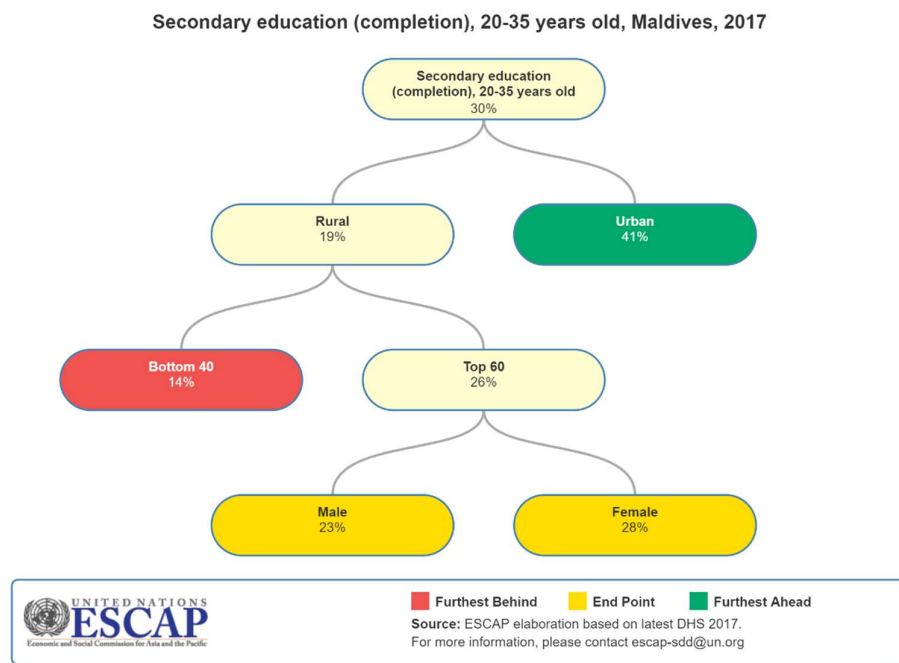
Rates of secondary education completion vary greatly in the Asia-Pacific region, from 94 per cent in Kazakhstan to 14 per cent in Papua New Guinea. The Maldives finds itself in a lower tier of secondary education completion rates, at just below 30 per cent. This places it middle of the pack compared to other SIDS nations. In the Maldives, the group that is the furthest behind is poorer and lives in rural areas. Among all SIDS nations, it is a consistent theme that poorer individuals are less likely to complete their secondary education.

Secondary education completion (continued)

Figure 3.1.5: Secondary education completion rate (country average, best-off, furthest behind), Asia-Pacific, latest year

Source: ESCAP calculations using data from the latest DHS and MICS

Table 3.1.5: Secondary education completion rate, SIDS, latest year

Source	Year	Country	Ref. pop (size)	Country average	Best-off (%)	Best-off (% of pop)	Furthest behind (%)	Furthest behind (% of pop)	Biggest gap in access	Circumstances of the furthest behind group
MICS	2019	Kiribati	4760	18.43%	28.61%	30.37%	4.25%	18.38%	24 pp	Poorer men
DHS	2017	Maldives	9996	29.88%	41.02%	50.17%	13.77%	29.37%	27 pp	Poorer individuals living in rural areas
DHS	2018	Papua New Guinea	18735	13.62%	31.24%	13.12%	1.55%	19.10%	30 pp	Poorer women
DHS	2016	Timor-Leste	12684	47.92%	74.11%	17.79%	17.17%	16.60%	57 pp	Poorer women living in rural areas
MICS	2019	Tonga	2804	43.20%	65.24%	10.91%	24.84%	39.36%	40 pp	Poorer individuals
MICS	2007	Vanuatu	3182	38.76%	67.91%	14.59%	16.78%	20.73%	51 pp	Poorer women living in rural areas

Source: ESCAP calculations using data from the latest DHS and MICS
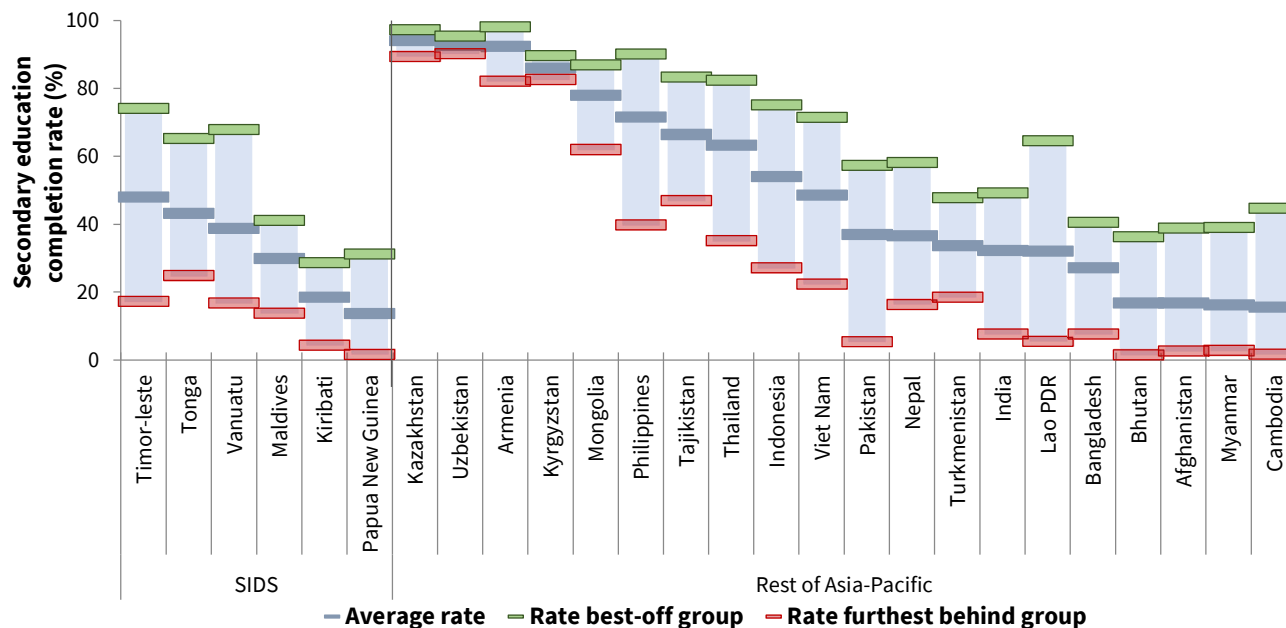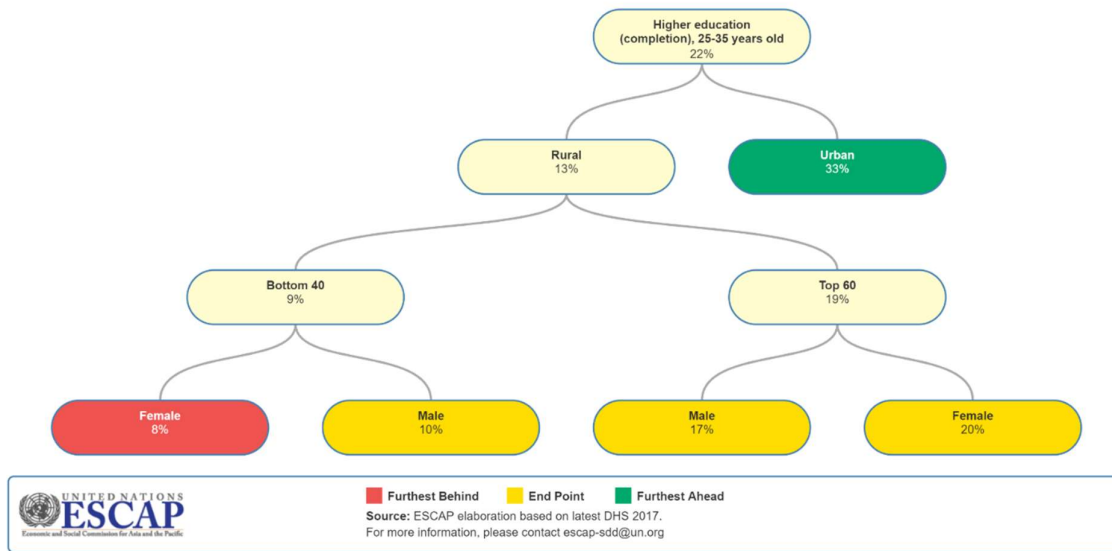
Higher education completion

The classification tree shows that the average higher education completion rate is 22 per cent. The red box shows the furthest behind group: poorer women living in rural areas, among whom 8 per cent have completed higher education (compared to 33 per cent in the best-off group).
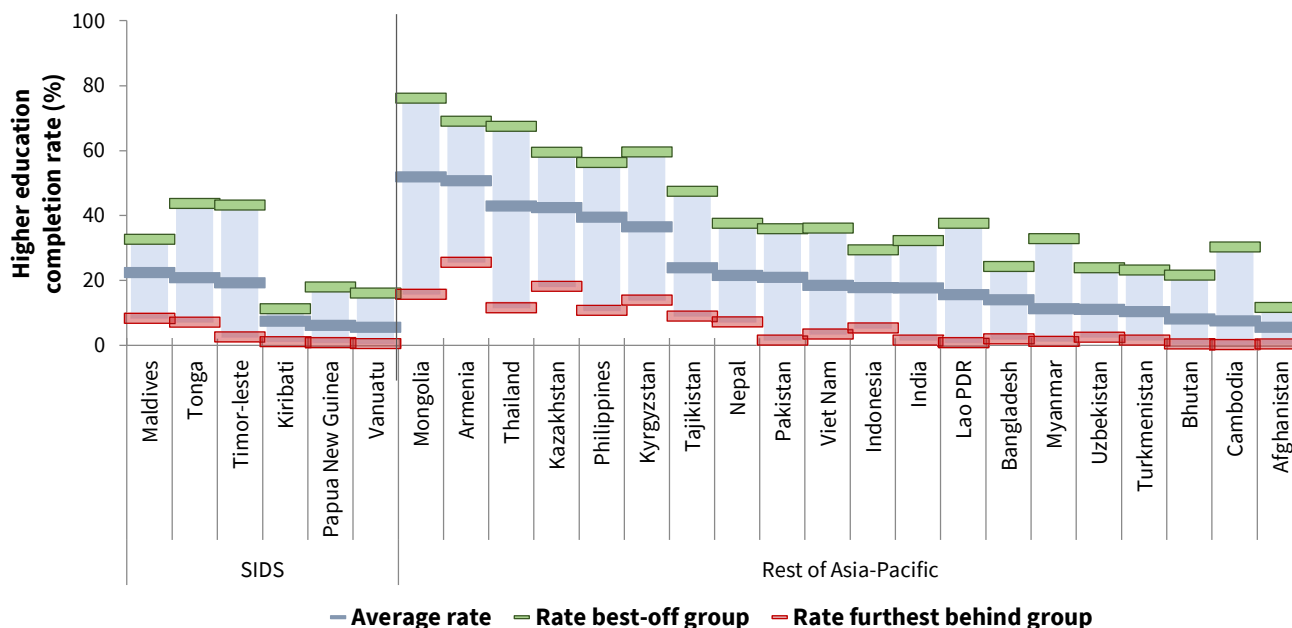
Higher education (completion), 25-35 years old, Maldives, 2017

Higher education
(completion), 25-35 years old
22%

Rural
13%

Urban
33%

Bottom 40
9%

Top 60
19%

Female
8%

Male
10%

Male
17%

Female
20%

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Economic and Social Commission for Asia and the Pacific

Furthest Behind   End Point   Furthest Ahead
Source: ESCAP elaboration based on latest DHS 2017.
For more information, please contact escap-sdd@un.org

The rate of higher education completion in the Maldives, at 22 per cent, is the highest among SIDS nations, and slightly above the median for the region. Out of the 26 Asia-Pacific nations analyzed, 20 have a higher education completion rate of 23 per cent or lower, while the top 6 have noticeably higher rates. As with higher education, wealth distribution is a common factor in determining who has, or does not have, access to higher education in SIDS nations. In the Maldives, poorer women living rural areas have only an 8 per cent completion rate for higher education, 25 percentage points lower than the group furthest ahead.

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Higher education completion (continued)

Figure 3.1.6: Higher education completion rate (country average, best-off, furthest behind), Asia-Pacific, latest year

Source: ESCAP calculations using data from the latest DHS and MICS

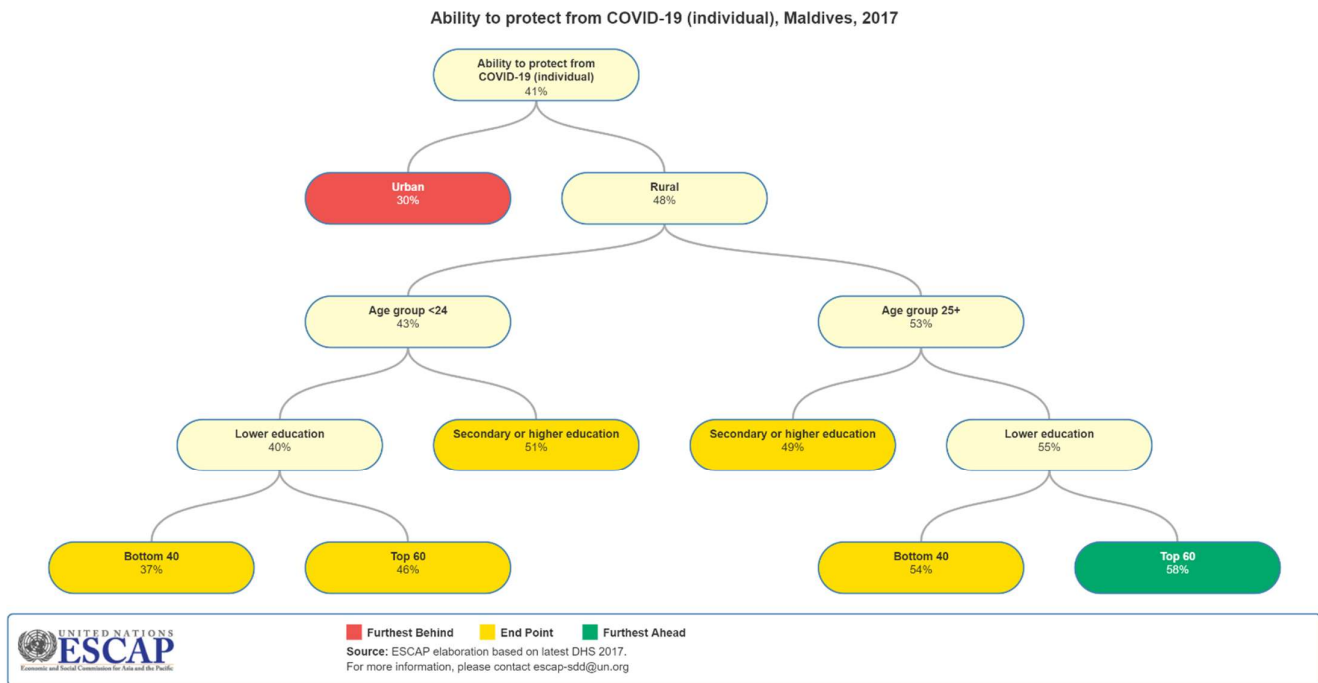**Table 3.1.6**: Higher education completion rate, SIDS, latest year

Source	Year	Country		Ref. pop (size)	Country average	Best-off (%)	Best-off (% of pop)	Furthest behind (%)	Furthest behind (% of pop)	Biggest gap in access	Circumstances of the furthest behind group
MICS	2019	Kiribati		3088	7.29%	11.20%	56.28%	1.02%	36.64%	10 pp	Poorer individuals
DHS	2017	Maldives		6961	22.36%	32.65%	47.66%	8.30%	19.11%	24 pp	Poorer women living in rural areas
DHS	2018	Papua New Guinea		12128	6.06%	17.89%	13.12%	0.76%	20.20%	17 pp	Poorer women living in rural areas
DHS	2016	Timor-Leste		8199	19.23%	43.13%	17.24%	2.48%	17.41%	41 pp	Poorer women living in rural areas
MICS	2019	Tonga		1811	20.77%	43.67%	11.03%	7.08%	39.38%	37 pp	Poorer individuals
MICS	2007	Vanuatu		2019	5.45%	16.01%	14.69%	0.49%	37.04%	16 pp	Poorer individuals living in rural areas

Source: ESCAP calculations using data from the latest DHS and MICS

Ability to protect from COVID-19

The classification tree shows that, on average, 41 per cent of individuals have a home environment which is fit to protect them from COVID-19. The red box shows the furthest behind group: individuals living in urban areas among which 30 per cent live in households with an unfit home environment (compared to 58 per cent of individuals in the best-off group).

Ability to protect from COVID-19 (individual), Maldives, 2017

Source: ESCAP elaboration based on latest DHS 2017.
For more information, please contact escap-sdd@un.org

The ability to protect from COVID-19 is an index constructed by the United Nations ESCAP defined as follows: the individual lives in a household with access to the internet, TV, phone, mobile phone or radio; there are either water pipes into the dwelling or yard or other private water source; the household has a handwashing facility on premises with soap and water available; there are no more than 2 people per sleeping room in the household; the household has a toilet which is not shared with other households. Compared to other SIDS countries, the Maldives fairs relatively well as it appears the second country with the highest ability to protect from COVID-19. Compared to the rest of Asia-Pacific, the average rate of 40 per cent appears in the upper tale of the distribution vis- à-vis countries such as Kyrgyzstan and Viet Nam.

Ability to protect from COVID-19 (continued)

Figure 3.1.7: Ability to protect from COVID-19 (country average, best-off, furthest behind), Asia-Pacific, latest year
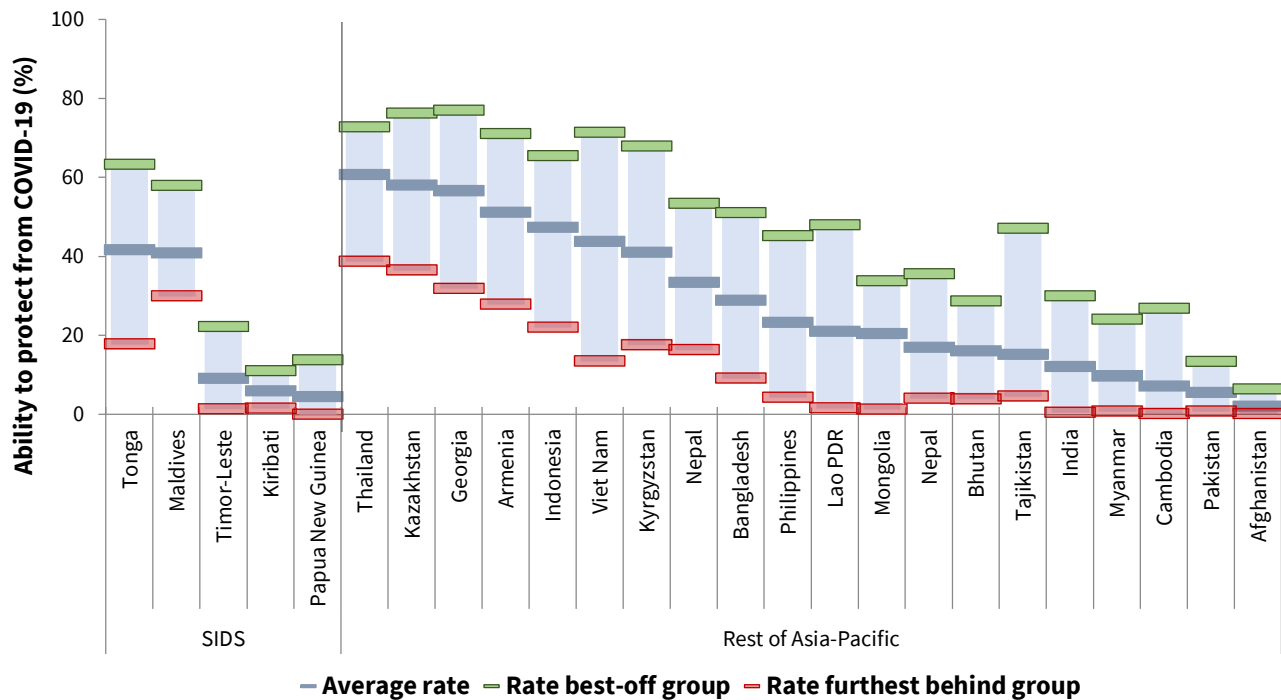
Source: ESCAP calculations using data from the latest DHS and MICS

| Source	Year	Country		Ref. pop (size)	Country average	Best-off (%)	Best-off (% of pop)	Furthest behind (%)	Furthest behind (% of pop)	Biggest gap in access	Circumstances of the furthest behind group
MICS	2019	Kiribati		18107	5.91%	11.03%	22.68%	1.55%	19.00%	9 pp	Individuals between 0-24 years old with lower education and living in poorer households
DHS	2017	Maldives		33261	40.80%	57.96%	6.20%	29.95%	41.32%	28 pp	Individuals living in urban areas
DHS	2018	Papua New Guinea		81623	4.44%	13.76%	14.89%	0.00%	37.61%	14 pp	Individuals with lower education and living in poorer households
DHS	2016	Timor-Leste		61111	9.07%	22.14%	13.65%	1.40%	39.95%	21 pp	Individuals living in poorer households
MICS	2019	Tonga		13232	41.63%	63.29%	11.84%	17.83%	22.06%	45 pp	Individuals between 0-24 years old living in poorer households
MICS	2007	Vanuatu			No analysis for this indicator						

Source: ESCAP calculations using data from the latest DHS and MICS

Stunting in children under 5 years of age

The classification tree shows that the average stunting rate for children under 5 years of age is 15 per cent. The red box shows the furthest behind group: boys living with 2 or more siblings under 5 years of age in the household, among whom 23 per cent are stunted (compared to 10 per cent in the best-off group).

Stunting in children under 5 years of age (rate), Maldives, 2017
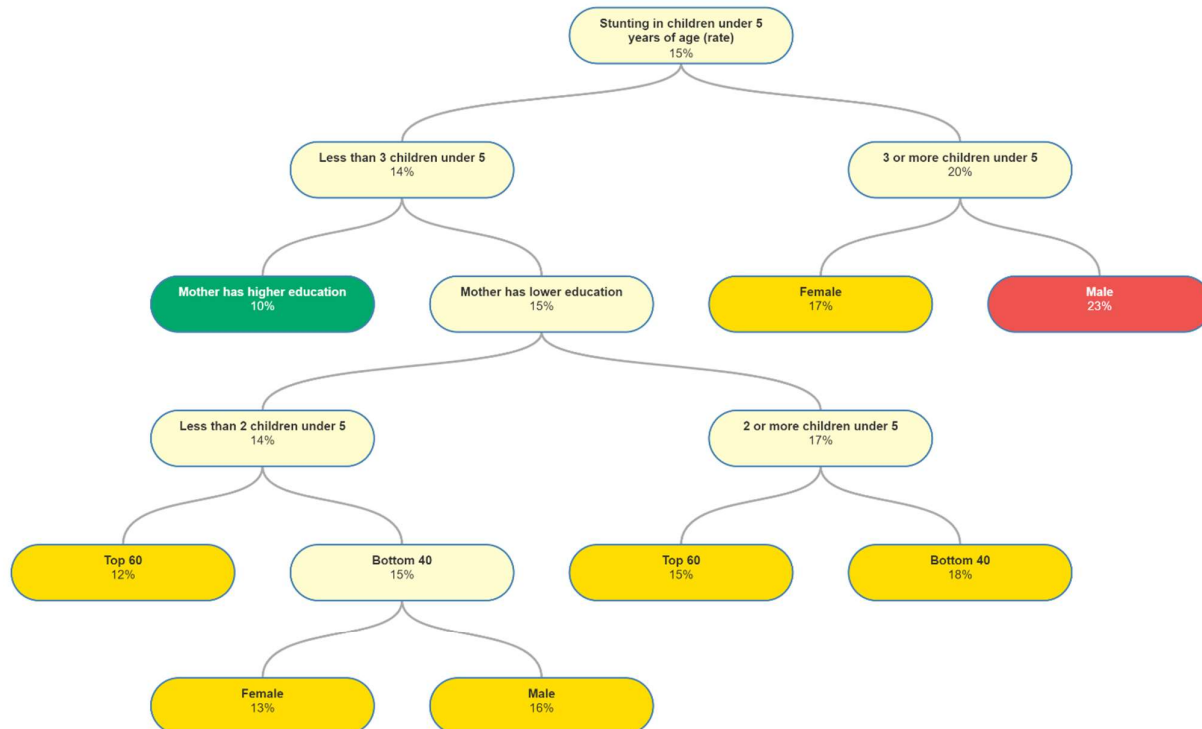
The Maldives finds itself in the 63rd percentile in the Asia-Pacific region for stunting in children under 5 years of age, as a lower rate is preferable for this indicator. From the above tree, we can see that no individual factor is associated with a difference of more than 6 percentage points between groups that are ahead or behind. However, from looking at the furthest behind groups in SIDS nations, we can see some commonalities between poorer children, often male, with many siblings and mothers who have lower educational attainment. Interestingly, the countries in the Asia-Pacific region with the highest average rate of stunting (Timor-Leste) and the lowest average rate (Tonga) are both SIDS nations.

Stunting in children under 5 years of age (continued)

Figure 3.1.8: Stunting in children under 5 years of age (country average, best-off, furthest behind), Asia-Pacific, latest year
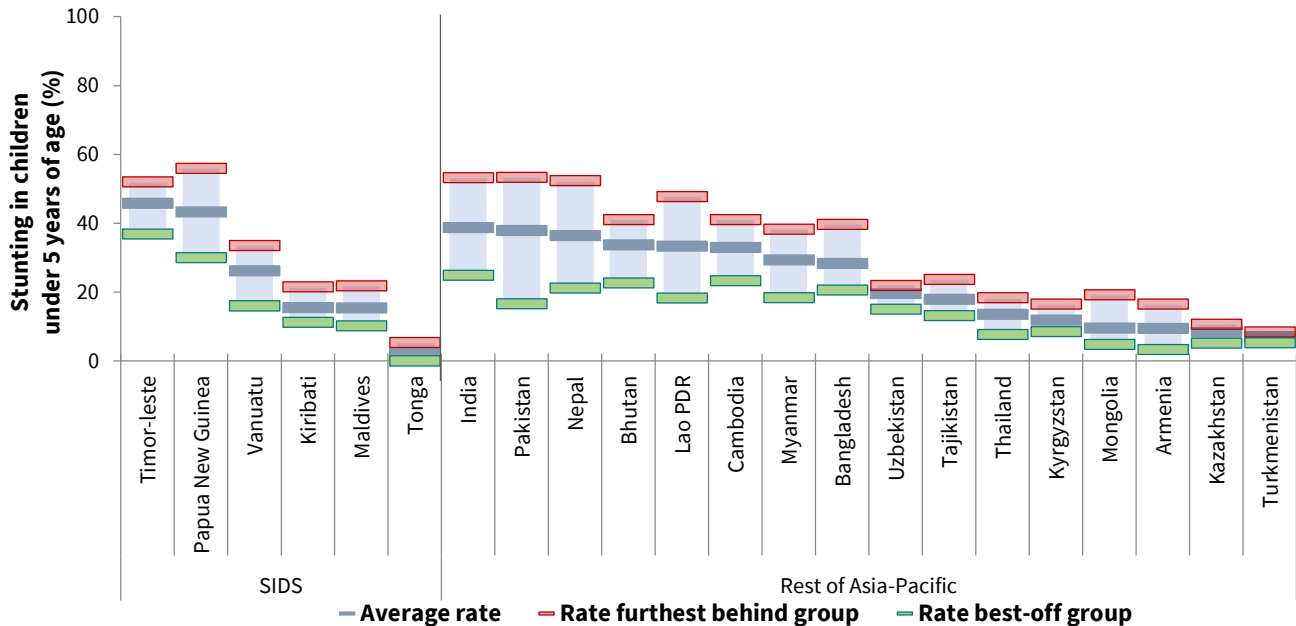
Source: ESCAP calculations using data from the latest DHS and MICS

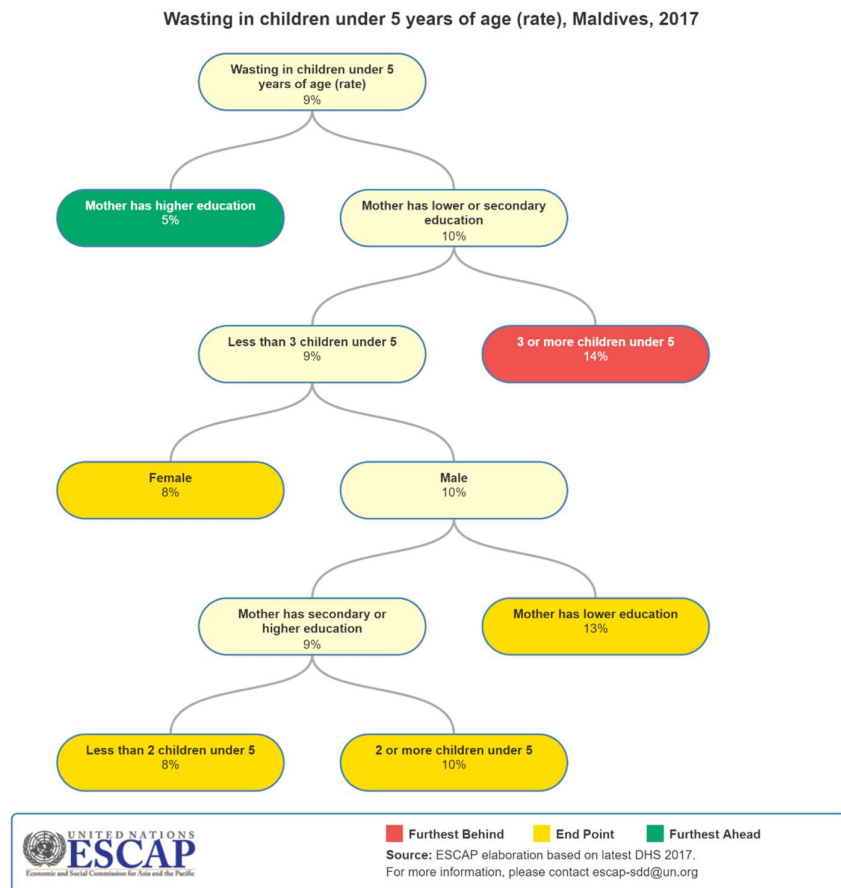**Table 3.1.8**: Stunting in children under 5 years of age, SIDS, latest year

Source	Year	Country	Ref. pop (size)	Country average	Best-off (%)	Best-off (% of pop)	Furthest behind (%)	Furthest behind (% of pop)	Biggest gap in access	Circumstances of the furthest behind group
MICS	2019	Kiribati	2128	15.40%	11.16%	38.10%	21.45%	26.81%	10 pp	Poorer children whose mother has lower or secondary education
DHS	2017	Maldives	2258	15.37%	10.16%	15.59%	21.82%	16.64%	12 pp	Boys with more than 2 siblings under 5 years of age
DHS	2018	Papua New Guinea	3822	43.20%	29.92%	19.48%	55.89%	13.50%	26 pp	Poorer children with a sibling under 5 years of age
DHS	2016	Timor-Leste	6742	45.73%	36.85%	12.27%	51.98%	20.12%	15 pp	Poorer boys living in rural areas
MICS	2019	Tonga	1283	2.21%	0.00%	12.07%	5.27%	12.68%	5 pp	Poorer boys with 2 to 4 siblings under 5 years of age
MICS	2007	Vanuatu	1312	26.05%	15.99%	22.75%	33.48%	36.49%	17 pp	Boys whose mother has lower education

Source: ESCAP calculations using data from the latest DHS and MICS
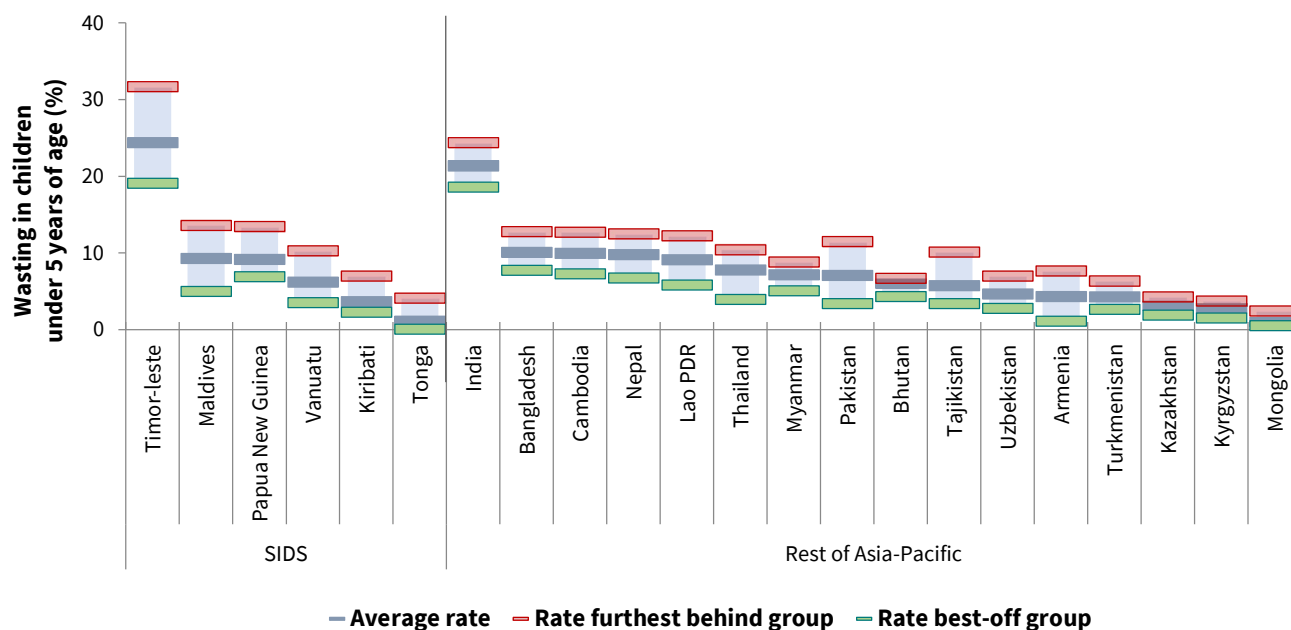
Wasting in children under 5 years of age

The classification tree shows that the average wasting rate for children under 5 years of age is 9 per cent. The red box shows the furthest behind group: children whose mother has lower or secondary education and living with 2 or more siblings under 5 years of age in the household, among which 14 per cent are wasted (compared to 5 per cent in the best-off group).

Wasting in children under 5 years of age (rate), Maldives, 2017

Compared to many other indicators, the gap between the group furthest ahead and furthest behind is relatively small in the Maldives for wasting in children under 5 years of age. This may be due, in part, to the low average rate of wasting in children, which is similar to most other countries in the Asia-Pacific region. However, Timor-Leste and India both have rates of wasting in children above 20 per cent, which is more than double the rate of the next highest country in the region. There are few commonalities among the groups that are furthest behind for the SIDS nations. Biological sex is a factor in half of the countries, but there is surprising variation between whether boys or girls are furthest behind depending on the country.

Wasting in children under 5 years of age (continued)

Figure 3.1.9: Wasting in children under 5 years of age (country average, best-off, furthest behind), Asia-Pacific, latest year

Source: ESCAP calculations using data from the latest DHS and MICS

Table 3.1.9: Wasting in children under 5 years of age, SIDS, latest year

| Source	Year	Country	Ref. pop (size)	Country average	Best-off (%)	Best-off (% of pop)	Furthest behind (%)	Furthest behind (% of pop)	Biggest gap in access	Circumstances of the furthest behind group
MICS	2019	Kiribati	2142	3.60%	2.20%	25.21%	6.96%	11.54%	5 pp	Poorer girls with less than 4 siblings under 5 years of age
DHS	2017	Maldives	2272	9.23%	4.93%	15.04%	13.55%	10.28%	9 pp	Children whose mother has lower or secondary education and with 2 or more siblings under 5 years of age
DHS	2018	Papua New Guinea	3892	9.13%	6.86%	35.32%	13.40%	17.33%	7 pp	Poorer children with 4 or 5 siblings under 5 years of age
DHS	2016	Timor-Leste	6508	24.33%	19.04%	20.16%	31.65%	13.92%	13 pp	Poorer boys whose mother has lower education
MICS	2019	Tonga	1271	1.06%	0.00%	9.02%	4.04%	8.79%	4 pp	Poorer girls with a sibling under 5 years of age
MICS	2007	Vanuatu	1317	6.12%	3.47%	35.91%	10.25%	18.22%	7 pp	Children living in urban areas

Source: ESCAP calculations using data from the latest DHS and MICS

Overweight in children under 5 years of age

The classification tree shows that the average overweight rate for children under 5 years of age is 5 per cent. The red box shows the furthest behind group: boys living with a sibling under 5 years of age in the household, among whom 8 per cent are overweight (compared to 2 per cent in the best-off group).

Overweight in children under 5 years of age (rate), Maldives, 2017
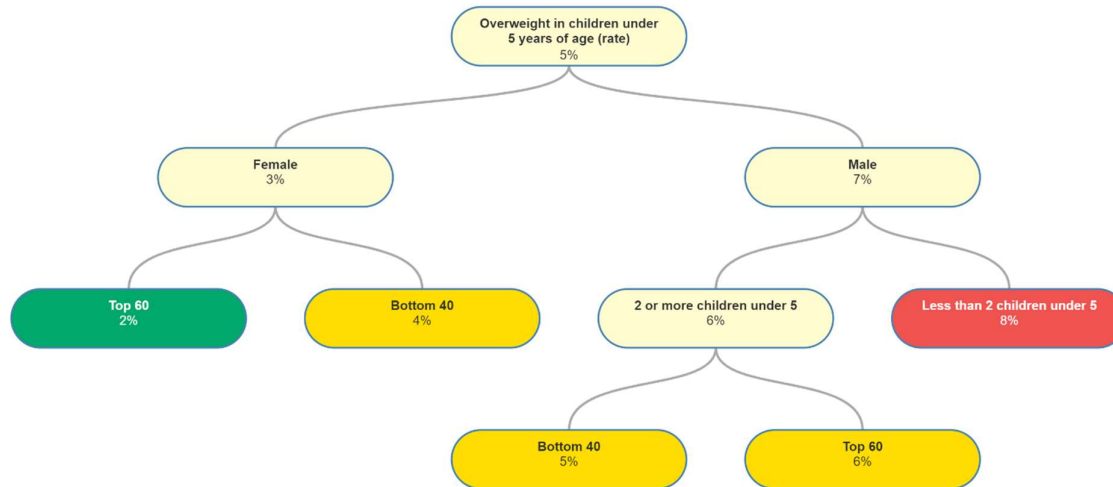
| Furthest Behind | End Point | Furthest Ahead |

Source: ESCAP elaboration based on latest DHS 2017.
For more information, please contact escap-sdd@un.org

Few children under 5 years of age are overweight in the Maldives, a trend which is consistent throughout the Asia-Pacific region. In absolute terms, there is only a small gap of 6 percentage points between the group that is furthest behind, boys with 1 or no siblings under 5 years of age, and the group that is furthest behind, girls whose families are in the top 60 per cent of wealth distribution. However, in relative terms, the group of children in the Maldives that is furthest behind is almost four times as likely to be overweight as the group furthest ahead. This highlights the inequality in experiencing this barrier to good health for children who are furthest behind in the Maldives.

Overweight in children under 5 years of age (continued)

Figure 3.1.10: Overweight in children under 5 years of age (country average, best-off, furthest behind), Asia-Pacific, latest year
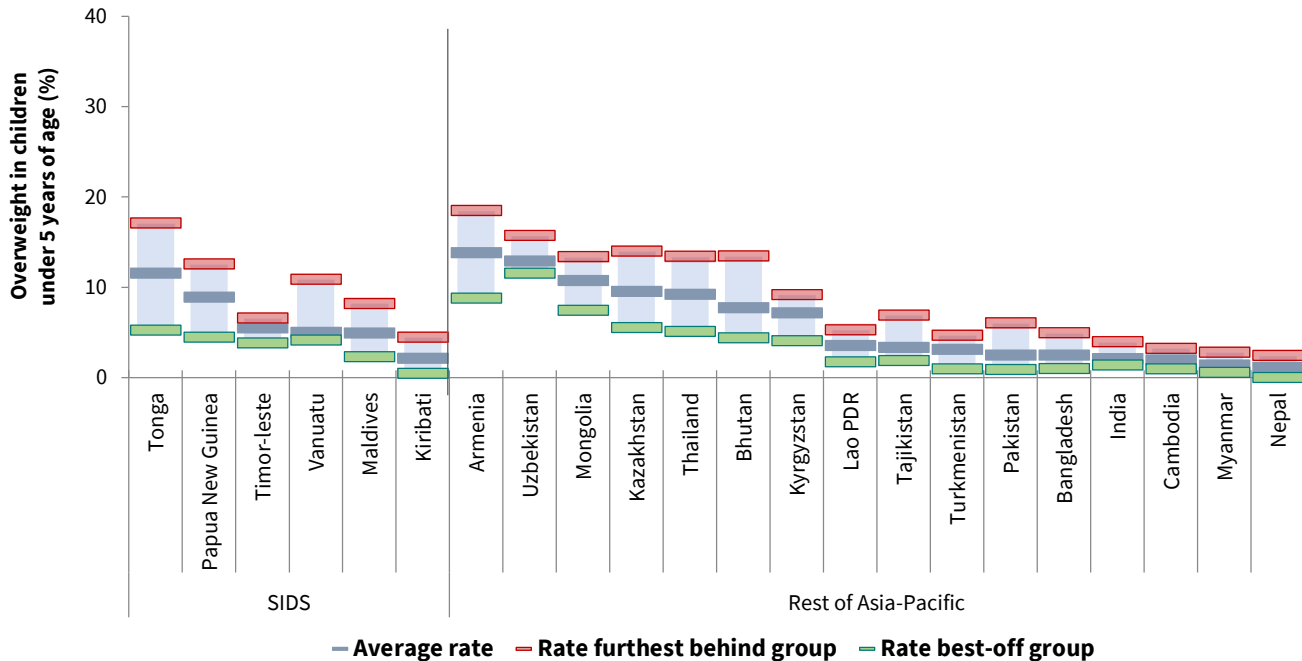
Source: ESCAP calculations using data from the latest DHS and MICS

Table 3.1.10: Overweight in children under 5 years of age, SIDS, latest year

Source	Year	Country		Ref. pop (size)	Country average	Best-off (%)	Best-off (% of pop)	Furthest behind (%)	Furthest behind (% of pop)	Biggest gap in access	Circumstances of the furthest behind group
MICS	2019	Kiribati		2142	2.12%	0.47%	24.16%	4.47%	29.46%	4 pp	Richer boys
DHS	2017	Maldives		2272	4.93%	2.31%	26.29%	8.20%	25.13%	6 pp	Boys with a sibling under 5 years of age
DHS	2018	Papua New Guinea		3892	8.91%	4.46%	14.86%	12.59%	13.80%	8 pp	Richer children
DHS	2016	Timor-Leste		6508	5.50%	3.81%	11.71%	6.59%	21.48%	3 pp	Richer children with 3 to 4 siblings under 5 years of age
MICS	2019	Tonga		1271	11.56%	5.28%	12.62%	17.11%	17.34%	12 pp	Boys with a sibling under 5 years of age living in rural areas
MICS	2007	Vanuatu		1317	5.00%	4.17%	81.78%	10.89%	10.20%	7 pp	Boys living in urban areas

Source: ESCAP calculations using data from the latest DHS and MICS

3.2 How large are the gaps in Maldives?

Figure 3.2: Access rate of the furthest behind, average and furthest ahead groups, all indicators, 2016-2017
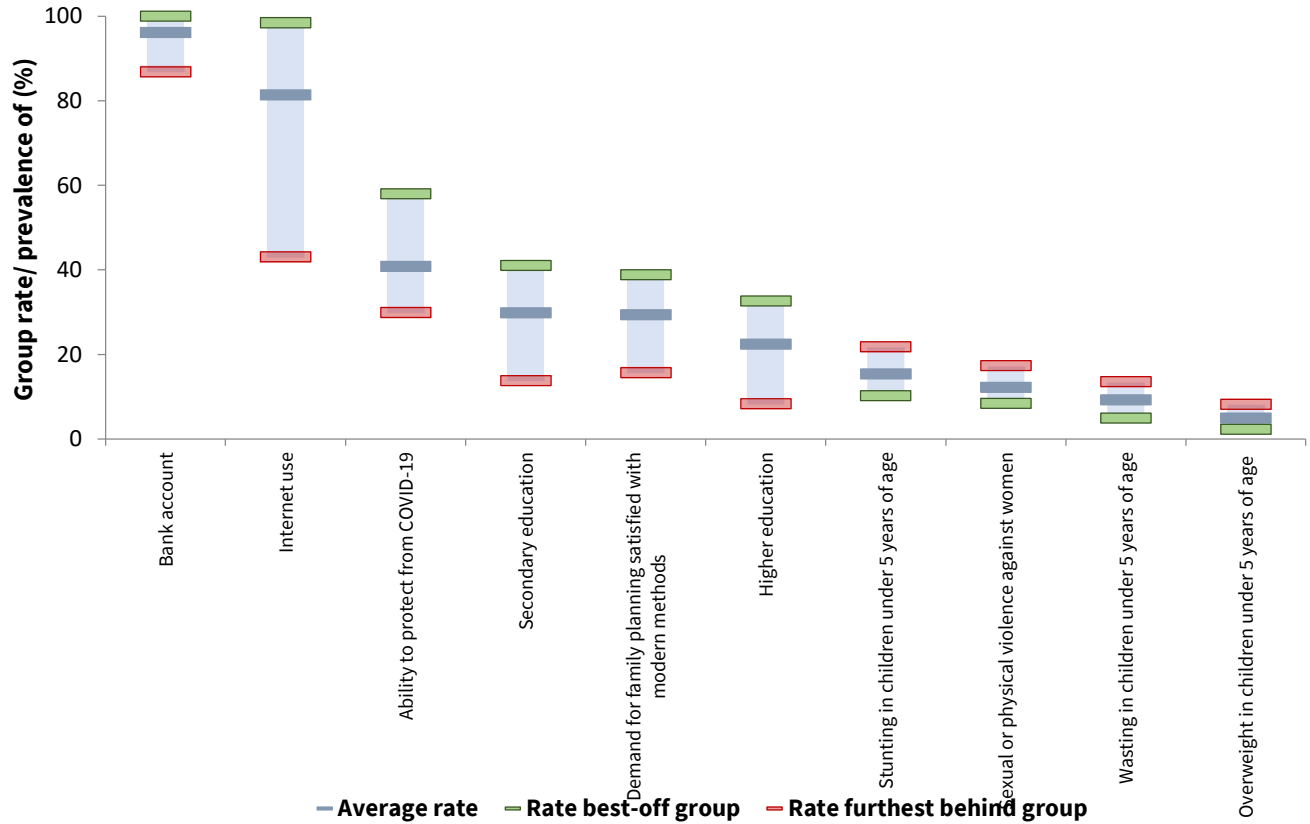
Source: ESCAP elaboration with data just from the Maldives, latest DHS (2016-2017).

3.3 Summary of gaps between the best off and the furthest behind groups

Table 3.2: Summary information on the access rate and size of key groups highlighted in the classification trees

Source	Year	Analysis	Sample size of reference population	Average rate	Size of best-off group	Rate of best-off group	Size of the furthest behind group	Rate of the furthest behind group	Gap in rate between the best-off and the furthest behind group
DHS	2017	Bank account	6050	96.11%	25.47%	100.00%	12.96%	86.84%	13 pp
DHS	2017	Higher education	6961	22.36%	47.66%	32.65%	19.11%	8.30%	24 pp
DHS	2017	Internet use	12041	81.36%	15.10%	98.43%	16.91%	43.05%	55 pp
DHS	2017	Demand for family planning satisfied with modern methods	2788	29.39%	25.37%	38.85%	13.99%	15.73%	23 pp
DHS	2017	Ability to protect from COVID-19	33261	40.80%	6.20%	57.96%	41.32%	29.95%	28 pp
DHS	2017	Overweight in children under 5 years of age	2272	4.93%	26.29%	2.31%	23.99%	7.93%	6 pp
DHS	2017	Secondary education	9996	29.88%	50.17%	41.02%	29.37%	13.77%	27 pp
DHS	2017	Sexual or physical violence against women	3123	12.24%	13.61%	8.43%	11.00%	17.27%	9 pp
DHS	2017	Stunting in children under 5 years of age	2258	15.37%	14.85%	10.32%	10.83%	22.71%	12 pp
DHS	2017	Wasting in children under 5 years of age	2272	9.23%	18.45%	5.46%	17.88%	14.19%	9 pp

Source: ESCAP elaboration with data just from the Maldives, latest DHS (2016-2017).

3.4 Summary of the characteristics of the furthest behind groups

The study has shed light on the layers of characteristics (circumstances) shared by the furthest behind group in bank account ownership, internet use, completion of secondary and higher education, women's demand for family planning satisfied with modern methods, ability to protect from COVID-19, prevalence of sexual or physical violence against women, and prevalence of stunting, wasting and overweight in children under 5 years of age. The figure below summarizes the information obtained from the trees presented earlier, highlighting the average rate, the rate of the best-off group, as well as the rate of the furthest behind group in Maldives.

Table 3.3: Circumstances that shape the furthest behind groups in all opportunities and barriers, Maldives

Opportunity or barrier/ Circumstances	Who are those left behind in Maldives?							
	Wealth	Residence	Education	Gender	Mother education	Children under 5 years of age	Age group	Electricity
Bank account	B40		Lower education	n/a	n/a	n/a	n/a	n/a
Higher education	B40	Rural	n/a	Female	n/a	n/a	n/a	n/a
Internet use			Lower education	Female	n/a	n/a		
Ability to protect from COVID-19		Urban			n/a	n/a		n/a
Demand for family planning satisfied with modern methods				n/a	n/a		15 - 24 years old	n/a
Overweight in children under 5 years of age			n/a	Male		Less than 2 children under 5 years of age	n/a	n/a
Secondary education	B40	Rural	n/a		n/a	n/a	n/a	n/a
Sexual or physical violence against women	B40			n/a	n/a	No children under 5 years of age	25 - 34 years old	n/a
Stunting in children under 5 years of age			n/a	Male		3 or more children under 5 years of age	n/a	n/a
Wasting in children under 5 years of age			n/a		Lower or secondary education	3 or more children under 5 years of age	n/a	n/a

Source: ESCAP calculations using data from the latest DHS (2016-2017)

4 CONCLUSION (draft)

There are many circumstances shaping access to different opportunities or the experience of a certain barrier by different groups. This analysis is restricted to those circumstances (variables) available in the Demographic Health Survey for Maldives. Ultimately, these circumstances define the composition of the groups, but should not be interpreted as causes of a lower access.

The findings are of direct use for generating discussions on transformations needed to "leave no one behind" and reach the "furthest behind first" as pledged in the 2030 Agenda for Sustainable Development. Considering the evolving COVID-19 pandemic, the groups that are furthest behind need to be brought into focus more urgently than ever.

Poorer households

Households and individuals in the bottom 40 per cent of the wealth distribution were found to be in the furthest behind groups in terms of education completion (secondary and higher), as well as in bank account ownership and in the prevalence of sexual and physical violence against women. While urban bottom 40 residents were also disadvantaged, rural ones were generally furthest behind. Ensuring that everyone has access to a basic income in the Maldives, particularly in rural areas, should be a priority for closing key gaps. For example, simulations suggest that introducing a universal pension of… [To be reviewed/completed, if RCO/UNCT in Maldives wanted to use/ explore the ESCAP Social Protection Simulation Tool]

Rural residence

Living in rural areas in the Maldives contributes significantly to belonging to the most disadvantaged groups in terms of completion of secondary and higher education, further aggravated by belonging to the Bottom 40 of the wealth distribution. Investment in education could focus on…[To be reviewed/completed later by UN education experts in the Maldives]

Gender considerations

Being a woman is not a disadvantage for completing secondary education, but it is for higher education, especially when combined with belonging to the bottom 40 and living in a rural area. Less educated women also use the internet the least in the Maldives. Low education also has intergenerational impacts, as children of women with lower or secondary education and two or more siblings are also the most wasted. Ensuring that women have the same opportunities as men to acquire higher education, including specialized IT skills, should therefore be a priority. [To be reviewed/completed later by gender specialists in the Maldives].

Families with more than 2 children

Having 3 or more children under the age of 5 can place physical, emotional, and economic stress on families. For children, especially boys, it could mean higher prevalence of stunting and wasting. Information around birth spacing should be coupled with financial support for children to ensure their nutrition needs, and those of the pregnant mother, are not compromised. Simulations suggest that introducing a universal child benefit of… [To be reviewed/completed later, if RCO in Maldives wanted to use/ explore the ESCAP Social Protection Simulation Tool]

Furthermore, in all the SIDS, including Maldives, women aged 15-24 are the furthest behind group with regards to the demand for family planning satisfied with modern methods. This critical gap, at a key age for women's completion of secondary and higher education, is worth highlighting when considering policy design.

ANNEX
Opportunities and barriers and their links to the SDGs

#	Indicator	Survey used	Reference population 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, 25-34, 35-49	Marital status (Single, currently/ formerly married or in a union)	Household access to electricity: Yes-No	Related SDG indicator
	Opportunities/Barriers (response variable)			**Circumstances used to determine the furthest behind/ best-off groups (independent variables)**								**Closest SDG indicator reference**
1	Completion of secondary education	DHS/MICS	Household member aged 20-35	Wealth	Residence	n/a	Woman/ Man	n/a	n/a	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	Completion of higher education	DHS/MICS	Household member aged 25-35	Wealth	Residence	n/a	Woman/ Man	n/a	n/a	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 in children under 5 years of age	DHS/MICS	Child aged 0-5 who has been measured	Wealth	Residence	Mother's Education	Boy/ Girl	Number of children under <5 years of age	n/a	n/a	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 in children under 5 years of age	DHS/MICS	Child aged 0-5 who has been measured	Wealth	Residence	Mother's Education	Boy/ Girl	Number of children under <5 years of age	n/a	n/a	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 in children under 5 years of age	DHS/MICS	Child aged 0-5 who has been measured	Wealth	Residence	Mother's Education	Boy/ Girl	Number of children under <5 years of age	n/a	n/a	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	Demand for family planning satisfied with modern methods	DHS/MICS	Women between 15-49 currently in union	Wealth	Residence	Respondee's education	Only Woman	Number of children under <5 years of age	Age group	n/a	n/a	3.7.1 Proportion of women aged 15-49 years who have their need for family planning satisfied with modern methods
7	Skilled birth attendance during childbirth	DHS/MICS	Women between 15-49 ever given birth in the last 5 years	Wealth	Residence	Respondee's education	Only Woman	Number of children under <5 years of age	Age group	Marital status	n/a	3.1.2 Proportion of births attended by skilled health personnel
8	Access to basic drinking water	DHS/MICS	All households	Wealth	Residence	Highest Education in household	n/a	n/a	n/a	n/a	n/a	6.1.1 Proportion of population using safely managed drinking water services
9	Access to basic sanitation services	DHS/MICS	All households	Wealth	Residence	Highest Education in household	n/a	n/a	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
10	Access to electricity	DHS/MICS	All households	Wealth	Residence	Highest Education in household	n/a	n/a	n/a	n/a	n/a	7.1.1 Proportion of population with access to electricity
11	Access to clean fuels	DHS/MICS	All households	Wealth	Residence	Highest Education in household	n/a	n/a	n/a	n/a	n/a	7.1.2 Proportion of population with primary reliance on clean fuels and technology
12	Ownership of bank account	DHS/MICS	All households	Wealth	Residence	Highest Education in household	n/a	n/a	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
13	Internet use	DHS/MICS	All households	Wealth	Residence	Highest Education in household	n/a	n/a	n/a	n/a	Yes/No	17.8.1 Proportion of individuals using the internet
14	Sexual or physical violence against women	DHS/MICS	Ever married women	Wealth	Residence	Respondee's education	Only Woman	Number of children under <5 years of age	Age group	n/a	n/a	5.2.1 Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age
15	Ability to protect from COVID-19	DHS/MICS	Household member	Wealth	Residence	Highest Education in household	Woman/ Man	n/a	Age group: 0-24, 25-59, 60+	n/a	n/a	Index measuring household's compliance with the following variables: the household has access to the internet, TV, phone, mobile phone or radio, the household has water pipes into the dwelling or yard or other private water source, the household has a handwashing facility on premises with soap and water available, there are no more than 2 people per sleeping room in the household, the household has a toilet which is not shared with other households.

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Gaps and limitations

The 10 indicators measuring access to household and individual opportunities or prevalence of barriers have been identified as areas where inequality jeopardizes a person's life prospects. Each of these opportunities or barriers are covered by specific commitments outlined in the Sustainable Development Goals. The findings are of direct use for generating discussions on transformations needed to "leave no one behind" and reach the "furthest behind first" as pledged in the 2030 Agenda.

There are many variables shaping access to different opportunities or the prevalence of barriers. For example, distance from a health-care provider is an important circumstance that might shape a woman's demand for family planning satisfied with modern methods. Similarly, distance to a banking institution main be a barrier for individuals seeking to open a bank account or conduct financial transactions. These variables are not measured in existing DHS and MICS surveys, so results have to be understood with this caveat.

Consistent with other similar studies on inequalities, this analysis does not consider inequality within groups or in households. Even with homogeneous groups, additional unobserved circumstances may affect outcomes.

The main reason for restricting age to 25-35 for higher education is to avoid: (1) skewing the results because of an older population with significantly lower education levels; and (2) including individuals that, because of their young age, could not have completed their education. Similarly, for secondary education the age range is 20-35 years old.

Wealth, as used in this report, is a composite index reflecting a household's cumulative living standard, developed by the DHS and MICS researchers and combines a range of household circumstances including: a) ownership of household assets, such as TVs, radios and bicycles; b) materials used for housing; and c) type of water and sanitation facilities.

The classification and regression tree (CART) analysis only presents circumstances in the tree branches if they are found to reduce "entropy". Ultimately, these circumstances define the composition of the groups, but should not be interpreted as "causes" of a lower opportunity or of higher barriers. There are also many other factors that could potentially impact the results, but because of data limitations have not been included.

CONTACT DETAILS

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For thematic reports, please visit: https://www.unescap.org/our-work/social-development/poverty-and-inequality/resources

For more information on the classification trees, please visit: https://www.socialprotection-toolbox.org/inequality

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