

Inequality of Opportunity in Asia and the Pacific

Decent Work





The shaded areas of the map indicate ESCAP members and associate members.

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Country abbreviations

AF	Afghanistan	FM	Micronesia, Federated States of
AM	Armenia	MN	Mongolia
AU	Australia	MM	Myanmar
AZ	Azerbaijan	NR	Nauru
BD	Bangladesh	NP	Nepal
BN	Brunei Darussalam	NC	New Caledonia
BT	Bhutan	NZ	New Zealand
KH	Cambodia	MP	Northern Mariana Islands
CN	China	PK	Pakistan
FJ	Fiji	PW	Palau
PF	French Polynesia	PG	Papua New Guinea
GE	Georgia	PH	Philippines
GU	Guam	RU	Russian Federation
HK	Hong Kong SAR, China	WS	Samoa
IN	India	SG	Singapore
ID	Indonesia	SB	Solomon Islands
IR	Iran, Islamic Republic of	LK	Sri Lanka
JP	Japan	TL	Timor-Leste
KZ	Kazakhstan	TH	Thailand
KI	Kiribati	TJ	Tajikistan
KP	Korea, Democratic People's Republic	TM	Turkmenistan
KR	Korea, Republic of	TO	Tonga
KG	Kyrgyzstan	TR	Turkey
LA	Lao People's Democratic Republic	TV	Tuvalu
MO	Macao SAR, China	VU	Vanuatu
MV	Maldives	UZ	Uzbekistan
MY	Malaysia	VN	Viet Nam
MH	Marshall Islands		

About the Inequality of Opportunity papers

The ESCAP *Inequality of Opportunity* papers place men and women at the heart of sustainable and inclusive development. The papers do so by identifying seven areas where inequality jeopardizes person's prospects, namely: education; women's access to health care; children's nutrition; decent employment; basic water and sanitation; access to clean energy; and financial inclusion. Each of these opportunities are covered by specific commitments outlined in the 2030 Agenda for Sustainable Development and addressed in a separate thematic paper covering 21 countries throughout Asia and the Pacific.ⁱ

ESCAP first discussed inequality of opportunity in its 2015 report *Time for Equality* and established the distinction between inequality of outcome and inequality of opportunity. While the former depicts the consequences of unequally distributed income and wealth, the latter is concerned with access to key dimensions necessary for fulfilling one's potential.

The present papers build on the work of many scholars and the findings from *Time for Equality*. It applies a novel approach to analysing household surveys with the aim of identifying the groups of individuals with the lowest access to the above-referenced opportunities. These groups are defined by common circumstances over which the individual has no direct control.

In addition to identifying the furthest behind, the *Inequality of Opportunity* papers also explore the gaps between in-country groups in accessing the key opportunities, as well as the extent to which these have narrowed or widened over time. These inequalities are then analysed to identify the impact and importance each key circumstance plays.

Ultimately, these findings are of direct use for generating discussion on transformations needed to reach the "furthest behind first" as pledged in the 2030 Agenda.

ⁱ All policy papers follow the same methodology, except for decent employment and political participation, where the available datasets did not include adequate questions.

1. Introduction and scope

Decent work embodies full and productive employment, rights at work, social protection and the promotion of social dialogue. Reaching those left behind and enabling access to decent work will promote lives of greater dignity and greatly reduce all forms of inequality.

As part of the 2030 Agenda for Sustainable Development, member States pledged to promote inclusive and sustainable economic growth, as well as full and productive employment and decent work for all (SDG 8).

Decent work is not easy to measure. SDG Target 8.3 calls for measurement of informal employment, but data are scarce in Asia and the Pacific.ⁱⁱ To identify gaps in the labour force in terms of access to decent work, this policy paper uses the “employed full-time for an employer index” in the Gallup World Pollⁱⁱⁱ 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 (Box 1). However, while this index may be a good proxy for developing countries, in the region’s developed countries, part-time or self employment could be the result of choice, not lack of opportunity for full-time employment.

Although structural and institutional factors underpinning inequality fall beyond the scope of this policy paper, it is worth noting lessons from research. For example, while decent work is not a service provided by governments, it is enabled by good governance, rule of law and effective relations between government and business. Furthermore, to achieve full employment and decent work for all, monitoring and enforcement systems enhanced by strong social dialogue and collective bargaining practices are necessary.

“...the right to decent work is key to the Sustainable Development Agenda”

The overall aim of this policy paper is: i) to outline why policymakers need to take action to reduce inequality in access to full-time employment; ii) to introduce a new way of analysing survey data by identifying the shared circumstances of those “furthest behind”; and iii) to analyse observed inequality by the relative contribution of each different circumstance, over which the individual has little or no control.

ii SDG Targets 8.2 and 8.3 emphasize achieving higher levels of productivity through diversification and through promoting development-oriented policies that support decent job creation. Target 8.5 emphasizes achieving full and productive employment and decent work for all.

iii ILO provided support on analysis related to microdata of the Gallup World Poll.

2. Why does inequality in access to decent work matter?

Full and productive employment and decent work for all are essential for reducing all forms of inequality. Decent work raises incomes and aggregate demand, thus reducing poverty and fuelling more inclusive and sustainable economic growth. Formal and better paying jobs also help create a broader tax base. Higher tax revenues can then be channelled back into social services, benefitting the most vulnerable and contributing to an upward cycle where even more people have access to decent jobs.

The proportion of workers in vulnerable jobs in the Asian and Pacific region has dropped by 10 per cent since 2000. Still, it remains high at some 50 per cent of the total workforce.¹ In total, 1 billion people are in vulnerable jobs. Vulnerable work is often characterized as low pay and low-productivity and can be difficult and dangerous.

Vulnerable employment rates also mirror informality, where workers do not benefit from legal or social protection. Employment-based inequality traps workers, denying them access to the relatively small number of wage jobs in the formal economy.

2.1

Inequality of access to decent jobs jeopardizes economic growth

Inequality in access to decent work accompanies wage inequality, leaving many people with low disposable incomes, dampening household consumption and hindering economic growth.²

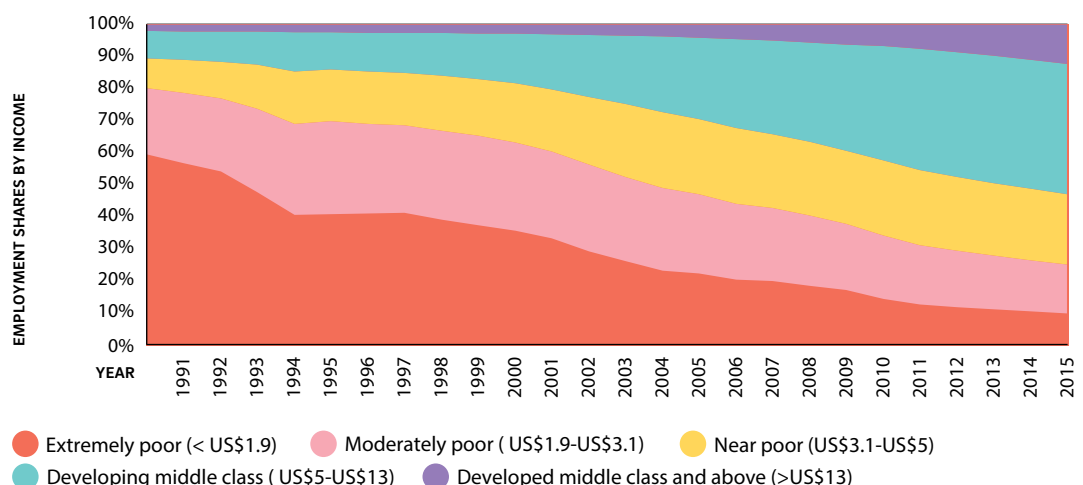
On average, wages in Asia and the Pacific are growing faster than in any other region. However, while wages grew by 4 per cent in 2015,³ the labour share of GDP fell from 61 to 54 per cent between the early 2000s and 2015.⁴

The disconnect between wages and productivity means that fewer people benefit from decent jobs and economic growth, while the majority see only marginal changes in their income. Although extreme working poverty fell from 35.5 per cent in 2000 to 9.8 per cent in 2015, the proportion of workers living in or near poverty remains high at 47 per cent (Figure 1).

Associated wealth and income inequality also hinder the pace and durability of economic growth.⁵ Because labour income is the main

FIGURE 1

Employment shares by income in Asia and the Pacific, 1990–2015



Source: ESCAP based on ILO, 2015. Key Indicators of the Labour Market (KILM).

household income, wage inequality and declining labour shares pressure aggregate demand downward.

Moreover, since household consumption is a major component of demand, and because lower income groups tend to spend any increase in income on purchasing necessary goods, connecting poorer groups with better paid jobs holds a strong multiplier effect. Rising wage inequality, on the other hand, translates to higher income inequality and risks leaving countries in the middle-income trap.⁶

2.2 Inequality in access to decent jobs worsens vulnerabilities

Gaps in access to decent work mean social protection is less likely to reach those who need it most. There has been some expansion in provision of social protection in Asia and the Pacific. Nonetheless, social protection typically benefits formal sector workers who contribute to social insurance, with a few benefits reaching the most vulnerable in the form of social assistance. This leaves most of the population uncovered, and means poverty reduction associated with universal social protection is not achieved.⁷

Currently, people who are not poor receive more benefits though social spending. For example, the disaggregated Social Protection Indicator (SPI) for the non poor in the Pacific was equivalent to 1.7 per cent of GDP per capita in 2012, while for the poor it was only 0.2 per cent of GDP per capita, an 8:1 ratio.⁸

Men also have greater coverage than women. The SPI for men is equivalent to 2.1 per cent of GDP per capita in Asian countries and 1.1 per cent in the Pacific countries, compared with 1.6 per cent of GDP per capita in Asia and 0.8 per cent in the Pacific for women.⁹ As a result, current social protection spending patterns are actually contributing to inequality between men and women.

Overall, social safety valves are denied to those who need them most. For example, health insurance is often tied to formal employment,

leaving informal workers uncovered. Occupational safety and health conditions are often worse in vulnerable and informal sector jobs, leading to high rates of workplace accidents and injuries, as well as contributing to health-based inequalities.¹⁰

Finally, certain sectors suffer greater decent work deficits than others. For example, agriculture, which employs over half a billion people in Asia and the Pacific, has higher rates of informality and vulnerability.¹¹ The growing manufacturing sector is also increasingly prioritizing short-term employment and contract work.

Without effective government action, workers are left without stability in the employment relationship, access to training or education, social protection, or the freedom of association necessary for improving their working conditions.

2.3 Equality of access to decent work supports social justice

Work is fundamental to social inclusion, personal dignity, stability and development. Decent jobs facilitate social integration through economic empowerment and voice in both the workplace and community. Jobs can break down social barriers between groups including class, religion, ethnic boundaries and gender by connecting people from different backgrounds.

Persistent exclusion of certain groups from decent jobs, however, undermines social justice and contributes to rising inequality. For example, women have lower labour force participation rates and are overrepresented in both vulnerable and low paid jobs. In fact, young women not participating in either education or employment consistently outnumber men, implying widespread discouragement or cultural and institutional barriers to labour market participation.¹² Young people also face discrimination and exclusion, with consistently higher unemployment rates than their working-age counterparts over 25 years of age.

Exclusion from decent work can also contribute to social instability. When there is a disconnect between economic growth and wage growth,

frustration may rise because people do not feel the benefits from development.¹³ For example, social unrest and protests following the 2008 financial crisis were partly attributed to unemployment and inequality of opportunity.¹⁴

2.4

Lack of access to decent jobs compounds environmental challenges

Vulnerable and excluded groups often work in sectors deeply affected by environmental degradation and climate change. Not only does environmental degradation directly threaten the livelihoods of these groups, they are also ill-equipped to benefit from a transition to a greener economy.

Globally, the transition to a greener economy is estimated to affect some 1.5 billion jobs, positively or negatively. This transition will be particularly felt in sectors threatened by the overuse of natural resources, such as agriculture, forestry and fisheries, the largest employment sectors in Asia and the Pacific.¹⁵

Promoting equal access to the emerging pool of green jobs, which are by definition decent jobs,

“Globally, the transition to a greener economy is estimated to affect some 1.5 billion jobs, positively or negatively”

could therefore improve resilience of vulnerable workers and their communities to climate-related challenges. For example, capacity building to promote responsible use of fertilisers and pesticides and sustainable agricultural techniques would improve the quality of work for the region's 500 million agricultural workers, increase yields and promote environmental sustainability.¹⁶

Globally, providing access to modern clean energy alone could also generate new economic opportunity for nearly 1.3 billion people.¹⁷ For example, producing renewable energy is labour intensive and could increase demand for local workers, even while taking into account the negative impact on fossil fuels jobs.¹⁸ Furthermore, by implementing green policies an additional 60 million jobs can be created by 2030.¹⁹

3. A new approach to identifying the furthest behind

A new methodological approach to ascertain the gaps in access to decent work is needed to meet the 2030 Agenda. This policy paper analyses household level data from the Gallup World Poll for 33 countries in the ESCAP region to identify those most excluded from accessing full-time employment.

To identify the groups in the labour force with the lowest access to decent work, the policy

paper uses Gallup's "Employed full-time for an employer index" as a proxy (Box 1). Using the classification tree approach, an algorithm splits the value of the target indicators into groups, based on predetermined circumstances, namely: sex (male or female); age (15–24, 25–49 and 50–64); level of education (primary or lower, secondary or higher); marital status (unmarried, married or separated); residence (rural or urban); and whether or not respondents have children.

BOX 1

Measuring full-time employment and links to decent work

Decent work has four interrelated pillars: employment creation; social protection; rights at work; and social dialogue.

In developing countries with limited social safety nets, employment is vital for survival. Consequently, in these contexts, labour force participation rates tend to be high and unemployment rates low for the most vulnerable, even though they may only have access to jobs that are low quality, low productivity, and dirty, difficult and dangerous.

The Gallup World Poll covers 33 ESCAP member states in the region, providing a wide source of comparable data. Survey respondents are classified into six categories of employment: 1) employed full-time for an employer; 2) employed full-time for self; 3) employed part time and do not want full-time work; 4) employed part time, but want to work full-time; 5) unemployed (not employed for self or employer in last seven days, looking for and able to work in the last four weeks); and 6) those out of the workforce. As measured by Gallup, the proportion of men and women employed full-time as an employee corresponds to the proportion of all employees in the labour market reported by the ILO.

In this policy paper, the "Employed full-time for an employer index" (category 1) has therefore been selected as a proxy to measure access to decent work.

The index falls in line with employment classifications used by the ILO, whereby employees are considered to be in higher quality jobs, and, conversely, own-account workers and contributing family members are considered to be in vulnerable employment.

Employees are workers with paid employment, explicit employment contracts and whose payment is not directly dependent on the revenue of their place of work. Full-time employees are therefore less likely to be informal workers. Unlike employees, other types of workers are more likely to have informal work arrangements and not to benefit from elements of decent work, such as social security and decent pay.

In each iteration, the classification tree ascertains significantly different groups and identifies those that are most and least advantaged in terms of access to decent work. These groups consist of households sharing common circumstances. Section 6 describes the additional impact of belonging to a minority or culturally marginalized group and repeats the analysis using religion or ethnicity as a shared circumstance for one country where the impact is visible.

To illustrate how different circumstances interact to produce either a disadvantage (or advantage) for accessing decent work, the example of Turkmenistan is used (Figure 2).

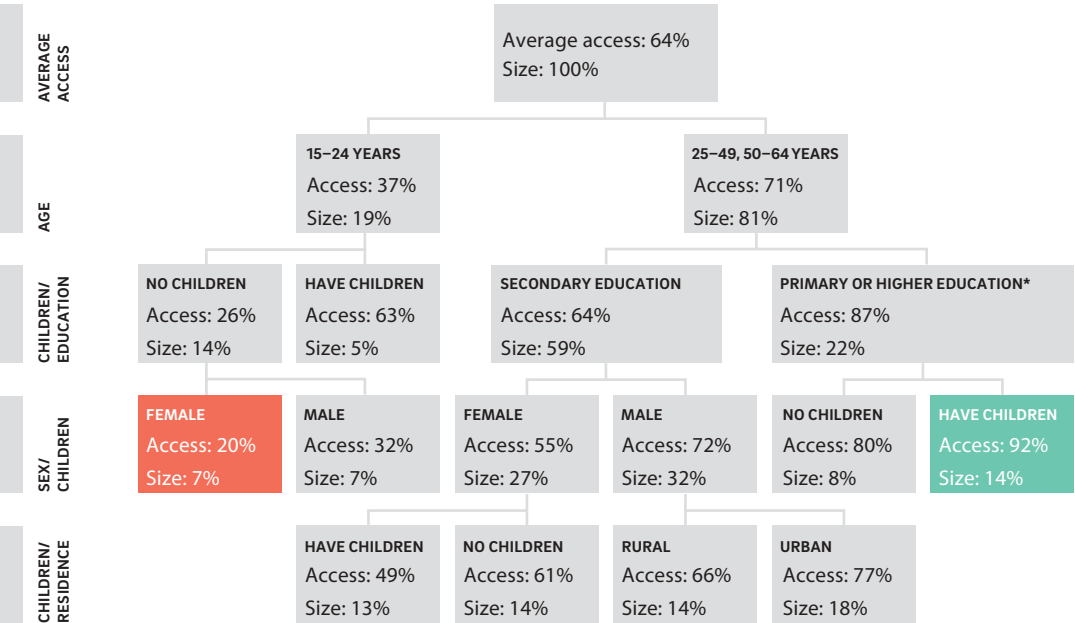
The first level of partition (split) is age. People between 15 and 24 years of age and who are in the labour market have an access rate of 37 per cent, compared with a rate of 71 per cent for people between 25 and 64 years of age. Having children is

the second determinant in access for young people. In other words, those with children are more likely to be in full-time employment than those without. Meanwhile, for people between 25 and 64 years of age, education is the second determinant.

Overall, young women with no children have the lowest access to full-time employment at 20 per cent and make up 7 per cent of the population. On the other hand, the group with the highest access rate—at 92 per cent—are people between 25 and 64 years of age, with either primary or higher education and with children, and make up 14 per cent of the population.

An interesting observation from the classification tree is the gap between men and women among those who have secondary education and are in the 25–64 age group. Only 55 per cent of women are in full-time employment, compared with 72 per cent of men.

FIGURE 2
Classification tree highlighting differences in access to full-time employment in Turkmenistan



Source: ESCAP calculations based on ILO and latest Gallup World Poll for Turkmenistan (2016).

*Primary and higher education are grouped together by the classification tree algorithm, however they possibly reflect different nature of full-time employment (low vs. high-skilled)

4. Who are those left behind?

Ample evidence demonstrates that many people in Asia and the Pacific are still being left behind. With 1 billion people in vulnerable work in Asia and the Pacific, progress towards equality of access to decent jobs has stagnated. This reality contrasts starkly with the principle of universalism permeating the 2030 Agenda because ignoring or excluding certain groups from opportunities threatens long-term prosperity.

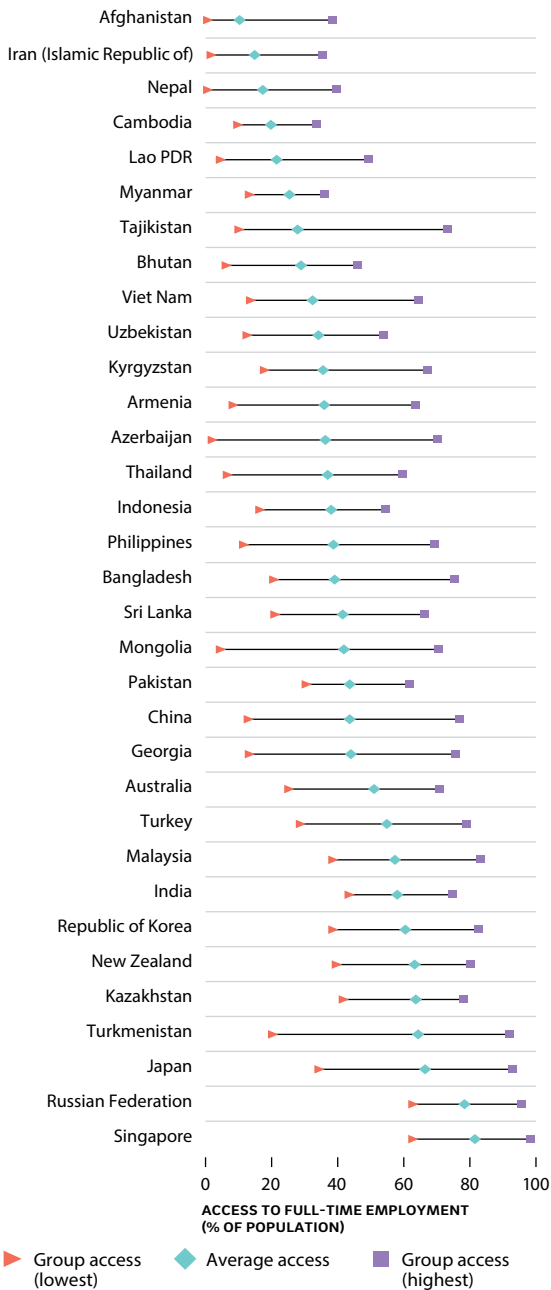
To achieve the SDG targets and meet human rights standards, it is necessary to ensure men and women have the opportunity to access work that enables themselves and their families to live in dignity. Policymakers therefore need to identify who is being left behind and make those groups, households and individuals the focus of their efforts. Only then can prosperity be shared and future socioeconomic stability protected.

4.1 How large are the gaps?

The tree analysis described in Section 3 allows researchers to compare gaps across countries. Analysis was conducted for 33 countries and the results are summarized in Figure 3. The squares (outer-right) represent the access rate of the most advantaged group (those with the highest access) for each country. The triangles (outer-left) represent the access rate of the most disadvantaged group (with the overall lowest access). The diamonds represent the average access by which countries are sorted. The actual composition of the most privileged or disadvantaged groups is discussed later in this Section.

As an example, Singapore, the Russian Federation and Japan have the highest average access to full-time employment, and while the gap in access is low in the first two countries, Japan has a relatively wide gap with 58 percentage points between the access rates of the most and least advantaged groups. However, findings for developed countries contain different messages, which are not the subject of this paper, since the level of full-time employment may reflect personal choice, rather than access to an opportunity.

FIGURE 3
Gaps in access to full-time employment



Source: ESCAP calculations based on ILO and the latest Gallup World Poll.
Note: In the region's developed countries, the level of full-time employment may reflect more personal choice rather than access to an opportunity.

4. WHO ARE THOSE LEFT BEHIND?

Afghanistan, the Islamic Republic of Iran and Nepal have low average access to full-time employment. In Afghanistan, just 10 per cent of the population are in full-time employment; yet inequality is high. Overall, Azerbaijan, China, Mongolia and Turkmenistan have the widest gaps in access to full-time employment (Table 1).

The relationship between average access to full-time employment and the access gap can be further illustrated using a binomial equation graph (Figure 4). The graph shows the predicted path of inequality that exists in comparison to the average rates of access. Typically, very low or high access to an opportunity means there is little room for inequality. When average access increases, gaps increase. As countries edge towards universal access to an opportunity, the gaps also fall.

In the instance of access to full-time employment, there are indeed lower gaps in countries where average access rates are very low and very high. This can be seen in Cambodia, Islamic Republic of Iran and Myanmar, all of which have low access, as well as Singapore and the Russian Federation, which have high average levels of access.

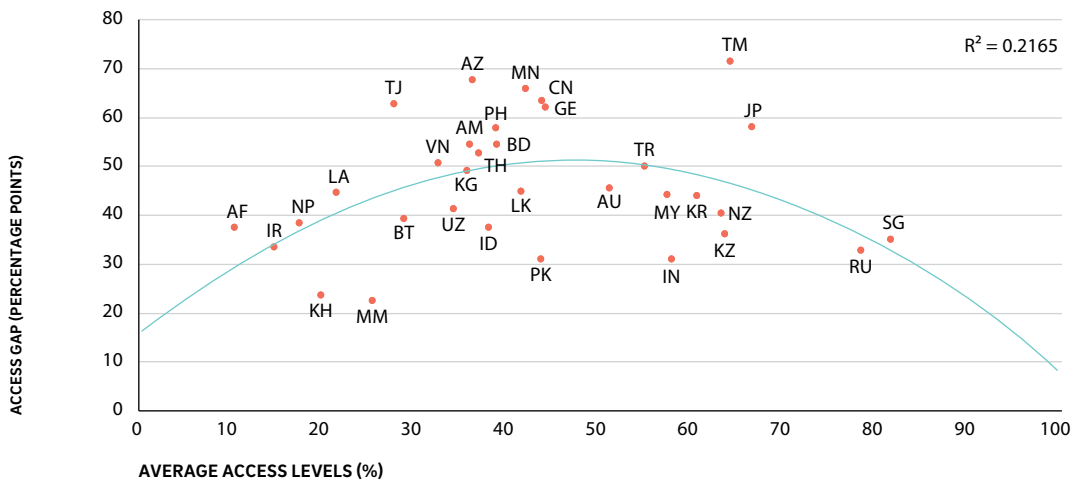
However, the presence of multiple outliers suggests that average access alone cannot fully explain the gaps in access to full-time employment. As average employment levels reach 30–70 per cent, there is a wide variation in the gaps. Notably, India and Pakistan have smaller gaps than predicted, while Azerbaijan, Japan and Turkmenistan have much larger gaps.

Moving towards higher average levels of full-time employment does not automatically pull the most disadvantaged groups out of exclusion. Targeted policy aimed at reducing gaps requires evidence on which groups in society are being left behind and which circumstances are most affecting the gaps.

4.2
Identifying those left behind

Addressing gaps requires identifying the shared circumstances of those with least access to full-time employment. This section narrows the focus onto some of the most disadvantaged groups in each country to identify the circumstances they share. Although the circumstances of the most disadvantaged groups in each country are not the same across the 33 countries analysed, some commonalities are found.

FIGURE 4
Relationship between average access and access gap between most and least excluded, latest year



Source: ESCAP calculations based on ILO and latest Gallup World Poll for countries in the Asia-Pacific region.

4. WHO ARE THOSE LEFT BEHIND?

Table 1 lists the composition of individuals with lowest access rates, the size of the population represented and the gap between the groups with the highest and lowest access.^{iv} Access rates range from a low of just 1 per cent in Afghanistan to a high of 63 per cent in Singapore (see Table 1). The size of the groups with the lowest access to full-time employment also ranges from 6 per cent of the target population in Azerbaijan to 27 per cent in Cambodia.

Examining the circumstances of the most disadvantaged groups informs policy discussions and enables coordination of interventions. The circumstances of the most excluded group vary and, in some cases, multiple layers of disadvantage convene to limit access. For instance, in Uzbekistan the most disadvantaged are rural, married women with children, who are educated to a primary or secondary level. In other cases, just one factor

is enough, as is the case with young people in Australia, Kazakhstan, New Zealand and the Russian Federation.^v

Moreover, in 19 of the countries studied the most disadvantaged group are females. Young people also face disproportionately low access to full-time employment in 16 of the countries. Education is another important determining factor, where men and women with lower levels of education are more frequently represented among those with least access to full-time employment. Occasionally, people with primary education may have higher rates of full-time employment than those with secondary education. This finding may reflect the availability of low-skilled jobs for which little education is necessary. Finally, rural residence is also a common circumstance of those in the most disadvantaged group, although not all countries have data available on rural-urban residence.

iv These tables do not show the composition of the most advantaged group (with the highest attainment rate) but this information can be made available upon request.

v In the region's developed countries, the level of full-time employment may reflect more personal choice rather than access to an opportunity.

4. WHO ARE THOSE LEFT BEHIND?

TABLE 1

Composition of the groups with least access to full-time employment

COUNTRY	AGE GROUP	EDUCATION	RESIDENCE	MARITAL STATUS	SEX	HAVE CHILDREN	ACCESS LEVEL OF THE MOST DISADVANTAGED GROUP	SIZE OF THE MOST DISADVANTAGED GROUP	ACCESS GAP FROM MOST ADVANTAGED GROUP (PERCENTAGE POINTS)
Afghanistan		with primary education			women		1%	8%	37 pp
Armenia			rural	single or separated			9%	11%	54 pp
Australia	15-24 years old						25%	17%	45 pp
Azerbaijan			rural	single or separated	women		2%	6%	68 pp
Bangladesh			rural		women		21%	13%	54 pp
Bhutan					women	with no children	6%	6%	39 pp
Cambodia	25-64 years old	with primary education	rural	married or separated	women		10%	27%	23 pp
China	15-24 or 50-64 years old	with primary education			women		13%	8%	63 pp
Georgia			rural	married	women		13%	12%	62 pp
India	15-24 years old			single			43%	19%	31 pp
Indonesia		with primary education		married or separated	women		17%	17%	37 pp
Iran (Islamic Republic of)	15-24 or 50-64 years old	with primary or secondary education				with no children	2%	17%	33 pp
Japan		with primary or secondary education	urban	married or separated	women		35%	14%	58 pp
Kazakhstan	15-24 years old						42%	17%	36 pp
Kyrgyzstan		with secondary education	rural			with no children	18%	11%	49 pp
Lao PDR	25-49 years old	with primary education	rural		women		5%	16%	45 pp
Malaysia	15-24 or 50-64 years old				women		39%	14%	44 pp
Mongolia	15-24 or 50-64 years old	with primary education	rural				5%	6%	66 pp
Myanmar	50-64 years old				women		14%	8%	22 pp
Nepal	15-24 or 50-64 years old	with primary education	rural		women		1%	15%	38 pp
New Zealand	15-24 years old						40%	14%	40 pp
Pakistan	50-64 years old						31%	16%	31 pp
Philippines	50-64 years old				women		12%	8%	58 pp
Republic of Korea				separated			39%	6%	44 pp
Russian Federation	15-24 years old						63%	12%	33 pp
Singapore	15-24 or 50-64 years old	with secondary education		married			63%	18%	35 pp
Sri Lanka	15-24 or 50-64 years old				women		24%	15%	42 pp
Tajikistan	25-49 years old	with primary education					10%	14%	63 pp
Thailand	15-24 or 50-64 years old	with primary education	urban	single or married			7%	8%	53 pp
Turkey		with primary education		married	women		29%	9%	50 pp
Turkmenistan	15-24 years old				women	with no children	20%	7%	71 pp
Uzbekistan		with primary or secondary education	rural	married	women	with children	13%	11%	41 pp
Viet Nam		with primary or secondary education	rural		women	with no children	14%	10%	51 pp

Source: ESCAP calculations based on ILO and latest Gallup World Poll for countries in the Asia-Pacific region.

Note 1: A blank cell in the Table indicates that the circumstance (column) does not matter much in shaping the most disadvantaged group in that country (row).

Note 2: In the region's developed countries, the level of full-time employment may reflect more personal choice rather than access to an opportunity.

5. Understanding overall inequality in access to full-time employment

Beyond identifying the most disadvantaged groups, this section calculates overall levels of inequality in accessing full-time employment by all population groups in a given country. The calculated inequality can then be decomposed by circumstances, thereby capturing the individual impact of each circumstance on inequality of opportunity for every country. Policymakers can likewise follow this analysis to identify factors aggravating inequality in their country.

5.1 Calculating overall inequality

The first step to measuring overall inequality is identifying all possible population groups and their access levels. The Dissimilarity Index (D-index) is then determined by taking the access distances for each of these groups and comparing them to the average access level for each country (see Box 2). The calculated D-index represents the overall inequality in access to full-time employment.

5.2 Where is overall inequality highest?

Overall inequality in access to full-time employment is highest in countries with low average access. For example, Afghanistan and Nepal have the highest overall inequality in access to full-time employment, as shown by a high D-index (Figure 5). Singapore and the Russian Federation have low D-indexes, below 0.1 (10 per cent). However low D-indexes say little about other facets of decent work, such as social protection, social dialogue and freedom to collectively bargain and standards and rights of work.

5.3 What circumstances matter more in accessing full-time employment?

Building on the calculation of the D-index, the contribution of each of the circumstances to inequality is estimated. This analysis follows a

BOX 2

Calculating the Dissimilarity Index

The dissimilarity index, or D-index, measures how all different population groups fare in terms of accessing full-time employment. For example, two countries with identical average access rates may have a very different D-index depending on how equitably access is distributed (for example, among men and women, different age groups and people with different levels of education). To obtain the D-index, inequalities in access among all possible groups are calculated using the following equation:

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

where β_i is the weighted sampling proportion of group i , (sum of β_i equals 1), \bar{p} is the average access rate in the country and p_i is the level of access of population group i , and takes values from 0 to 1. There are n number of groups defined by using the interactions of the circumstances selected for the analysis.

Six circumstances are used to determine the number and composition of the population groups: sex (2 groups); marital status (2 groups); whether the individual has children (2 groups); education (3 groups); age (3 groups); residence (2 groups). This produces $n=144$ groups ($2 \times 2 \times 2 \times 3 \times 3 \times 2$), covering the entire sample population.

methodology called the Shapley decomposition (Box 3). From a policymaking perspective, understanding these patterns is useful for informing employment priorities, particularly if the goal is to “leave no one behind”.

BOX 3**Shapley decomposition**

The Shapley decomposition method estimates the marginal contribution of each circumstance to inequality in accessing full-time employment. The basic idea behind this decomposition, taken from cooperative game theory, is measuring how much the estimated D-index would change when a circumstance was added to the pre-existing set of circumstances. The change in inequality caused by the addition of a new circumstance would be a reasonable indicator of its contribution to inequality.²⁰

The impact of adding a circumstance A (e.g. residence) is given by the following formula:

$$D_A = \sum_{S \subseteq N \setminus \{A\}} \frac{|S|!(n-|S|-1)!}{n!} [D(S \cup \{A\}) - D(S)]$$

Where N is the set of all n circumstances; and S is the subset of N circumstances obtained after omitting the circumstance A. D(S) is the D-index estimated with the sub set of circumstances S. D(SU{A}) is the D-index calculated with set of circumstances S and the circumstance A.

The contribution of characteristic A to the D-index is then:

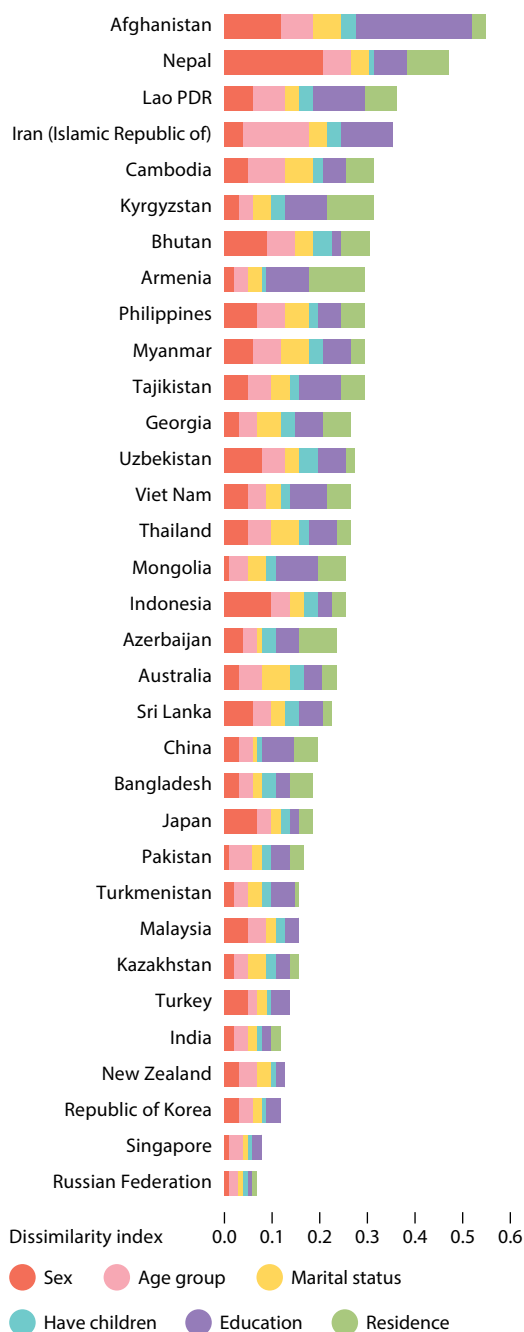
$$M_A = \frac{D_A}{D(N)}$$

The critical property satisfied by the Shapley decomposition is that the sum of contributions of all characteristics adds up to 1 (100 per cent).

As measured by the D-index, the relative contribution that specific circumstances make to overall inequality in access to full-time employment varies slightly across the region. Sex, education level and age are responsible for the largest share of inequality in most countries. Residence, which was not surveyed in all countries, also appears as a strong determinant. Each of these determining factors are found in a cross section, of low, high- and middle-income countries.

FIGURE 5

Inequality in access to full-time employment and its decomposition, latest year



Source: ESCAP calculations based on ILO and latest Gallup World Poll for countries in the Asia-Pacific region.

Note: In the region's developed countries, the level of full-time employment may reflect more personal choice rather than access to an opportunity.

5.4

How does each circumstance contribute to determining access?

In order to bolster the analytical findings, logistic regressions were conducted to observe the effects of circumstance variables (sex, age group, marital status, having children, education and residence) on an individual's access to full-time employment.

The logistic regression model for each country is given by:

$$\text{logit}(p_i) = \log\left(\frac{p_i}{1-p_i}\right) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \beta_7 x_7 + \beta_8 x_8 + \beta_9 x_9$$

Where p_i stands for $P(y=1)$ and y is a binary response variable which assumes two values:

$$y = \begin{cases} 1, & \text{if the individual is employed on a full time basis} \\ 0, & \text{if the individual is not employed on a full time basis} \end{cases}$$

And

where $\beta_0 \dots n$ are logit model coefficients and $X_1 \dots n$ are circumstance variables: X_1 is gender, X_2 and X_3 represent different age groups categories (X_2 for the 25–49 years age group, and X_3 for the group aged 50–64 years), X_4 and X_5 represent marital status categories (X_4 for married, and X_5 for separated), X_6 is the existence of children, X_7 and X_8 represent educational level categories (X_7 for secondary education, and X_8 for tertiary and higher education), and X_9 is residence.

The base references used in the model are male for X_1 , individuals 15–24 years old for X_2 and X_3 , single for X_4 and X_5 , no children for X_6 , lower education (comprising no education and primary education) for X_7 and X_8 , and rural areas for X_9 .

The results (Table A2) show that gender and education are the most significant factors in determining inequality in access to full-time employment. Women are less likely than men to work full-time. For example, in China women are 40 per cent less likely to have a full-time job than men. While individuals with secondary and tertiary education have, respectively, 2.6 and 4.3 times higher chances of full-time employment, as compared with those with only primary education.

Young people are also more likely to be excluded from full-time employment, as people between 25 and 49 years old have 2.3 times higher chances to work full-time compared with those between 15 and 24 years of age.

In most countries, marital status, residence, or having children, do not appear to be important stand-alone factors. However, repeating this analysis for the whole region yields a more nuanced picture of circumstances associated with full-time employment in the Asia-Pacific region (see Box 4).

BOX 4**Being in full-time employment: The circumstances that matter most across Asia and the Pacific**

- 1 Location.** With all other factors being equal, individuals living in rural areas of Asia and the Pacific face 34 per cent lower odds of being full-time employed, when compared to those living in urban areas.
- 2 Age.** Age also matters and benefits the prime-aged workers. Younger and older individuals in the labour force face lower chances of being employed full-time. The odds of being full-time employed for youth, i.e. individuals between 15 and 24 years, are 34 per cent lower than for those between 25 to 49, 25 per cent lower for individuals of ages 50 to 59 and 62 per cent lower for individuals of ages 60 to 64.
- 3 Gender.** The odds of a woman being employed on a full-time basis are 21 per cent lower compared to those of a man. Additionally, the odds of a woman with children being employed full-time are 28 per cent lower. On the contrary, having children does not harm a man's chances of being in full-time employment, and in fact men with children have 13 per cent higher odds of being in full-time employment than men without children.
- 4 Education.** When it comes to education, the higher the better. The odds of individuals with secondary education and tertiary education are, respectively, 46 and 168 per cent higher of being employed full-time, when compared to individuals with only primary education, or no education at all.

These findings are the result of a logistic model carried out for 33 countries of Asia and the Pacific. For details, see the table and notes in this box.

Results of logistic regression model

VARIABLES	(1)		(2)	
	LOGIT COEFFICIENT		ODDS RATIO	
Residence: Rural	-0.420***	(0.033)	0.657***	(0.022)
Age 15–24	-0.419***	(0.048)	0.658***	(0.032)
Age 50–59	-0.287***	(0.044)	0.751***	(0.033)
Age 60–64	-0.974***	(0.059)	0.378***	(0.022)
Sex: Female	-0.231***	(0.047)	0.794***	(0.038)
Having children	0.120***	(0.0457)	1.128***	(0.051)
Sex: Female x Having children	-0.315***	(0.063)	0.730***	(0.046)
Education: Secondary	0.380***	(0.040)	1.462***	(0.059)
Education: Higher	0.984***	(0.054)	2.676***	(0.145)
Constant	-1.198***	(0.144)	0.302***	(0.043)
Country Fixed Effects	Yes		Yes	
Observations	20,724		20,724	

Source: ESCAP elaboration, Gallup World Poll database (in collaboration with the ILO).

Notes: The dependent variable, full-time employed, is a binary response variable which assumes: 1 if a respondent has a full-time job for more than 30h per week, and 0 otherwise.

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Base references for categorical variables are: Residence: Urban, Age 25–49, Sex: Male, No children, Education: Primary or no education.

6. Does ethnicity matter for determining the furthest behind?

In many countries marginalized groups are also defined by a non-dominant, common ethnic or religious identity. However, there is a general lack of survey data detailing how ethnicity and religious characteristics shape inequality and create marginalized pockets within countries.

“...there is a general lack of survey data detailing how ethnicity and religious characteristics shape inequality”

In two countries covered in this policy paper, religion plays a role in access to full-time employment. As a result, the addition of this variable enables a greater understanding of the interactions between religion and the other circumstances. Repeating the classification tree analysis to include religion alters the composition of the furthest behind groups in Malaysia and Singapore. However, in Malaysia, the population size of the most disadvantaged group is just 3 per cent and therefore too small for statistical inference.^{vi}

In Singapore, average levels of full-time employment are very high at 82 per cent of the labour force. The group with the lowest levels are Buddhists or members of minority religions between 15 and 24 years of age or 50 years of age and above (Table 2, column 1). Among this group, 61 per cent are in full-time employment, a rate slightly lower of that of Christians or secularists of the same age (column 2). Meanwhile, Hindus and Muslims in the same age groups have an above average access rate of 89 per cent (column 3).

For Singapore, however, these differences in full-time employment rates may reflect personal choice to not work full-time or for an employer, rather than access to an opportunity.

TABLE 2
Access to full-time employment for different ethnic and/or religious groups^{vii}

	CIRCUMSTANCES AND ACCESS RATE OF THE MOST MARGINALIZED ETHNIC/ RELIGIOUS MINORITY (1)	CIRCUMSTANCES AND ACCESS RATE OF A LESS MARGINALIZED ETHNIC/ RELIGIOUS MINORITY (2)	CIRCUMSTANCES AND ACCESS RATE OF A LESS MARGINALIZED ETHNIC/ RELIGIOUS MINORITY (ADDITIONAL) (3)
Singapore	People aged 15–24 or over 50 years old Buddhist or belonging to minority religions: 61%	People aged 15–24 or over 50 years old who are Christian or with secular religion: 69%	People aged between 15–24 or over 50 years who are Hindu or Muslim: 89%

Source: ESCAP calculations based on ILO and latest Gallup World Poll for countries in the Asia-Pacific region.

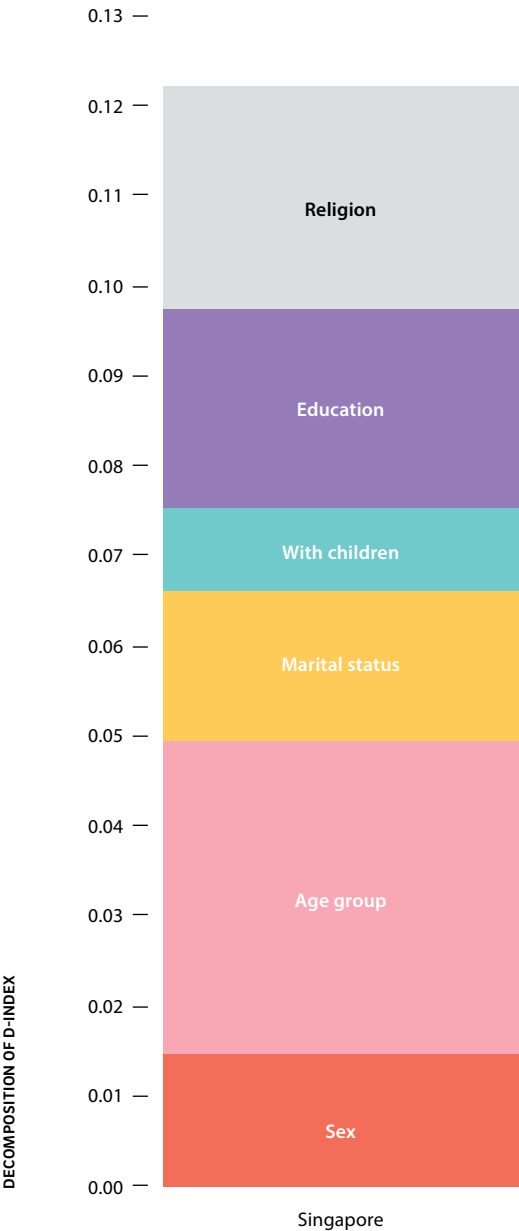
6.1 So what’s the impact on overall inequality?

Although solely relying upon Singapore as an example, analysis shows that religious- or ethnic-based differences can be both partly concealed and partly compounded by economic or social circumstances. Recalculating the decomposition of inequality for Singapore, including religion, confirms these findings. Age still matters most in shaping inequality, but religion is the second most important circumstance in Singapore (Figure 6).

Throughout the region, employment data specific to minorities is limited, even though minorities may suffer disproportionately from a lack of access to decent work. Due to the small sample size, this analysis does not show the different types of labour market exclusion that can be faced by religious and ethnic minorities, or by other marginalized groups.

vi These results are supported in the regression analysis results provided in the Annex.
vii Note: pink colour applies if the most marginalized group and the most marginalized ethnic/religious minorities are identical.

FIGURE 6
The role of religion in shaping inequality in full-time employment, latest year



Source: ESCAP calculations based on ILO and latest Gallup World Poll for countries in the Asia-Pacific region.
Note: In the region's developed countries, the level of full-time employment may reflect more personal choice rather than access to an opportunity.

Unemployment, for example, is typically higher among ethnic minorities and indigenous peoples. While unemployment has social exclusionary effects among all populations, these negative effects may be magnified among minorities that are already excluded, more generally, from the social majority.²¹

In New Zealand, recent data put the Māori unemployment rate at 10.4 per cent, compared to 4 per cent among European descendants.²² In Australia, in 2014–15, the unemployment rate for Aboriginal and Torres Strait Islander people 15 years of age and over was 20.6 per cent,²³ compared with a total unemployment rate that never exceeded 6.4 per cent in the same period.²⁴ In Myanmar, unemployment in the Rakhine state reaches 10.4 per cent, compared with the national rate of 4 per cent.²⁵ Unemployment is also disproportionately high in the Kurdish regions of the Islamic Republic of Iran²⁶ and Turkey.²⁷

Other issues faced by ethnic minorities and indigenous peoples are not captured in unemployment statistics. For instance, even employed indigenous Australians often face lower pay, less job security, and fewer hours than non-indigenous Australians.²⁸ Of all bonded labourers in India, 61.5 per cent are Scheduled Castes and 25.1 per cent Scheduled Tribes.²⁹ Caste-based forms of slavery and bonded labour are also prevalent in Nepal.³⁰ In short, employment is typically rarer among ethnic minorities and indigenous people, and where it does exist, it is more likely to be dirty, difficult and dangerous.

This brief assessment indicates the additional negative impact that belonging to a minority group may have on access to employment opportunities across Asia and the Pacific. It also reveals the general lack of comparable, reliable and consistently collected data on these population groups and the need to include them to a much larger degree into future data collection efforts. This is, however, also the case for migrants, slum dwellers, persons with disabilities and other vulnerable and excluded groups.

7. Recommendations for closing the gaps

Countries in the region face a range of challenges in ensuring universal access to decent work. At the micro level, gender, age, education and residence are among the factors leading to unequal opportunities. At the macro level, institutions and governance structure play important roles in overcoming barriers to equal opportunity.

“...policymakers need to take resolute, prompt action to close existing gaps”

This analysis sheds some light on the groups that are being left behind in access to decent jobs, as measured through the proxy of full-time employment. These are the groups where greatest efforts are needed if governments and development partners are going to reach the furthest behind first. As a result, policymakers need to take resolute, prompt action to close existing gaps.

The following are key considerations for policymakers when designing regulatory and other policies relating to access to decent work.

- 1 Promote decent job creation by tapping into high productivity sectors.** Industrial policies, including fiscal and regulatory incentives to targeted industries and subsidized targeted training, offer a set of tools to governments to promote economic diversification, accelerate productivity growth and kick start job-rich growth. The high productivity sectors to target vary from country to country, but in general promote development of an ecosystem of supportive companies, and, through multiplier effects, add value to the domestic economy. For example, this might mean promotion of light manufacturing industries, such as food processing, that employ people, offer wage and job growth potential and create an upward cycle of productivity growth. Other examples of potentially high productivity sectors with links to other sectors are transport, production of input materials and service industries.³¹
- 2 Link real wage growth to productivity growth.** Doing so can increase aggregate demand domestically and enable a virtuous cycle of growth, investment and employment generation.³² Government policy can influence the extent to which productivity gains and profit increases feed back into employment and wage growth. For example, governments can set and regularly review minimum wages. They can also channel tax income to employment boosting social sectors, such as health care, education and transport infrastructure.³³
- 3 Progressively transition informal work to formal work.** Expanding the formal sector means more workers benefit from decent work, including coverage by labour laws and social protection. Areas of focus should include ensuring that businesses can register easily, quickly and at low cost and that tax policies are realistic. Governments should also ensure that fundamental labour rights are in place and that there is an effective labour inspection system to ensure compliance.
- 4 Expand access to social protection.** As a pillar of decent work, social protection tackles inequality and poverty while promoting economic growth and enhancing human capital. There is a strong relationship between social spending and labour productivity both globally and in the Asia-Pacific region.³⁴ Supporting low-income families through cash transfers or other income-support mechanisms has strong multiplier effects as these groups tend to spend the extra income on domestic goods and services. It also insures against risks such as illness and unemployment, whose impacts can be life threatening, particularly for vulnerable workers with no financial reserves.
- 5 Develop specific policies and programmes that promote women’s access to decent full-time employment.** Women are often overrepresented in the most disadvantaged groups and in low paid, informal-sector

jobs. They also have lower access to social protection and systematically earn less for work of equal value. A range of actions are available to address women's lack of access to decent full-time employment, including a) breaking down sectoral and occupational gender segregation and promoting female entry to higher productivity sectors; b) tackling gender wage gaps by promoting women's access to higher paid sectors and upward career progression; c) addressing the undervaluation of sectors traditionally viewed as female dominated; and d) eliminating discrimination. Finally, through awareness raising, work-family arrangements could help address the unequal distribution of unpaid work in the household, for example by increasing access to child care and elderly care.

- 6 Encourage education completion among all groups.** In general, poor access to education early in life limits access to decent employment opportunities in later life. These disadvantages are often passed on through generations as a parent's lack of access to decent work affect the education opportunities of their children, creating intergenerational inequality traps. Rapid technological change can further entrench disadvantage as limited education reduces the foundation of skills necessary for the utilization of new technologies.
- 7 Ease the school-to-work transition.** The transition from school-to-work is a crucial stage for young people in gaining independence and shaping their future. Yet younger persons between 15 and 24 years of age are the least likely to have full-time employment. With fewer skills and less experience, many young people face challenges in entering the labour market and, once working, often face discrimination in terms of pay and advancement. Policies linking skills and education with plans for employment growth promise to ease that transition.³⁵ Active labour market policies, such as job-search assistance, further training, traineeships and direct job creation can provide practical experience, concrete skills and speed the transition to decent work.

- 8 Promote life-long learning.** Providing access to training and education over the lifecycle is vital to enable workers to keep up with technological and structural changes. Lifelong learning also helps increase opportunities across the lifecycle, and break intergenerational poverty traps. It protects workers against unemployment and empowers them to take control of their career and work progression later in life.

- 9 Promote geographical connectivity.** Mobility constraints compound inequality of employment opportunities. Jobs in rural areas are often in agriculture and many people work as low productivity subsistence farmers. Improving infrastructure, including transport connections, between rural and urban areas and removing bottlenecks from labour mobility can create opportunities for income-generating activities; while infrastructure development could also attract new businesses to rural areas.³⁶ In urban areas, good design, including high density towns and cities, transportation that links work and residence, and mixed land use, boosts job creation and lowers barriers to female participation in the labour market. Good urban form prevents ghettoization, and spatial inequality, and enables all people to access decent jobs.

- 10 Strengthen labour market data collection.** To identify the groups being left behind, more and better data is needed. Data need to be disaggregated by age, sex, ethnic or religious identity, and other social categories, as well as analysed by linking social groups with job categories and informal sector work. Moreover, collecting sound data will enable monitoring and evaluation of the impact of policy interventions.

- 11 Identify the shared common circumstances shaping access to decent full-time work.** Unequal opportunities for accessing decent jobs are strongly linked to unequal outcomes in other development objectives such as lower educational attainment. Understanding the key circumstances shaping these employment outcomes is paramount for addressing not only employment inequalities, but also for breaking intergenerational inequality traps.

Annex: Methodology for identifying gaps in access to opportunities

Inequality of opportunity

To measure inequality of opportunity, this Series identifies a set of opportunities and measures the gaps among different population groups in access to these opportunities. To do so, in the Access to Decent Work policy paper, a set of circumstances is selected from available variables in the Gallup World Poll dataset to define the groups. The circumstances are conditions over which the individuals or households have no control.

In this policy paper, those circumstances are used in the classification tree analysis to identify the groups that are most disadvantaged in each country; in this case, meaning those who have the least access to full-time employment. The composition of those groups varies from country to country, as does the size of the sample population they represent.

This approach differs from the use of “inequality of opportunity” in other recent literature, which instead uses regression analysis to explain the share of inequality of outcome (income inequality or consumption inequality) that can be attributed to circumstances over which individuals have no control, such as ethnicity and sex.

The data sources

This analysis in this policy paper uses the Gallup World Poll. Data is available for 33 ESCAP member states in the Asian and Pacific region as shown in Table A1. The Gallup dataset was selected because of: a) the comparability across countries; b) the accessibility of the data; and c) the extensive questions on employment, demographic and basic socioeconomic data (e.g., level of education, marital status).

The countries

Based on available data, a total of 33 are included in this policy paper on access to full-time employment. Only the most recent data is available.

TABLE A1
List of countries and survey years

COUNTRY	YEARS OF SURVEYS USED
Afghanistan	2016
Armenia	2016
Australia	2016
Azerbaijan	2016
Bangladesh	2016
Bhutan	2015
Cambodia	2016
China	2016
Georgia	2016
India	2016
Indonesia	2016
Iran (Islamic Republic of)	2016
Japan	2016
Kazakhstan	2016
Kyrgyzstan	2016
Lao PDR	2012
Malaysia	2015
Mongolia	2016
Myanmar	2016
Nepal	2016
New Zealand	2016
Pakistan	2016
Philippines	2016
Republic of Korea	2016
Russian Federation	2016
Singapore	2016
Sri Lanka	2015
Tajikistan	2016
Thailand	2016
Turkey	2016
Turkmenistan	2016
Uzbekistan	2016
Viet Nam	2016

The indicators and circumstances

The indicator depicting inequality in access to decent work is access to full-time employment. The main criteria for selecting this indicator The connection to the Sustainable Development Goals (SDGs), as well as the similarities between ILO data on employment classified as “employee status” and those classified by Gallup as people in full-time employment”.^{viii} The circumstances used are: sex (male or female); age (15-24, 25-49, 50-64); level of education (primary or lower, secondary, higher); marital status (married or not); residence (rural or urban); and whether or not respondents have children.

The classification tree analysis

The primary goal of the survey analysis is to identify the groups with the lowest and highest access to full-time employment, using the selected indicator. The indicator used can be seen as a “response variable”, while the factors characterizing these groups are defined as “circumstances”.

The analysis then uses a classification tree model to identify the groups with highest or lowest access. A classification tree is an analytical structure representing groups of the sample population with different response values, or different levels of access to a certain opportunity.

Consider the following example:

Opportunity: Decent work

Indicator (‘response variable’): “Access to full-time employment”.

Factors (‘circumstances’): The circumstances being considered are the following:

- 1 Sex (male vs. female);
- 2 Age (15-24, 25-49, 50-64);
- 3 Level of education (primary or lower, secondary, higher);
- 4 Marital status (married or not);
- 5 Whether or not respondents have children;
- 6 Residence (urban vs. rural).

To identify the groups with the highest or lowest access to full-time employment, a classification tree is constructed for each country, using R, an open source statistical software. The root node of the tree is the entire population sample. The tree method algorithm starts by searching for the first split (or branch) of the tree. It does so by looking at each circumstance and separating the sample in two groups so that it achieves the most “information reduction”. This information metric can be defined in a few ways, while the most common one, and the one used in this analysis, is the “entropy”.³⁷

The tree representation

A tree method is an algorithm that estimates the accessibility of decent work by partitioning individuals into different groups based on the circumstances chosen:

$$p(Y_i = 1 | X_{1i}, X_{2i}, \dots, X_{ki}) = \sum_{j=1}^m p_j \times I((X_{1i}, X_{2i}, \dots, X_{ki}) \in A_j)$$

Where Y_i is the observed opportunity for the i -th individual in the sample, X_{1i}, \dots, X_{ki} are the circumstances for the individual. In the example of full-time employment, Y is the access to full-time employment, $X_1, X_2, X_3, X_4, X_5, X_6$ (where $i = 6$) are sex, age, level of education, marital status, having children, and residence, six circumstances of the household from the survey. A_1, A_2, \dots, A_m are the different partitions of the sample, also called end nodes, where:

$$A_i \cap A_j = \emptyset$$

and

$$\bigcup_{i=1}^m A_i = \Omega.$$

This means the end nodes are mutually exclusive and complementary, and every individual belongs to one and only one of the end nodes. $I()$ only takes value 1 when the i -th individual belongs to j -th end node, otherwise, $I()$ takes value 0. The tree algorithm generates the end nodes, according to metrics that measure the effectiveness of the partition that gives to different levels of access to full-time employment.

viii The latest indicators to be used for monitoring the SDGs can be found at: <https://unstats.un.org/sdgs/iaeg-sdgs/>.

Information theory and entropy is a very common choice for the metrics. Entropy for j -th end node can be calculated according to the definition:

The aggregated entropy for the tree is calculated by:

$$I_E(p_j) = -(p_j \times \log_2 p_j + (1 - p_j) \times \log_2 (1 - p_j))$$

Where q_j is the sample proportion of A_j . The actual algorithm that generates the end-nodes works step-by-step, starting from the entire sample. Each time the sample is partitioned, new end-nodes are generated and the entropy is calculated and compared to the entropy before the new partition. Each partition (and hence the new end nodes) is kept when the increment of entropy is bigger than a pre-set threshold. The algorithm stops when no more increments of entropy can be made through a new partition, or a set of present conditions can't be satisfied.

In addition to finding groups that have significant differences in their access to full-time employment, the classification tree algorithm *also* operates under the limitation that each group should have enough group members. To avoid a sub-sample size that is too small, the analysis has set the tree nodes to have a minimum size of at least 10 per cent of the total population and the split of tree is only made when an "information reduction" criterion is satisfied.

In Section 6, which introduces ethnicity and religion as a circumstance, the minimum size of the population group criterion is reduced to 5 per cent of the population to fully capture minority religions and ethnicities.

Choice of circumstances

Out of the many variables available in the Gallup World Poll, several determinant factors are considered to help identify the most excluded groups. The selection of variables is consistent to maintain comparability across countries.

The classification tree includes these factors in the tree as branches only if they are found to reduce entropy. Ultimately, these circumstances (determinant factors) define the composition of

the groups. However, circumstances should not be interpreted as 'causes' of inequality. The association found does not imply causality. Furthermore, there are many other factors that these models cannot consider, because of the limitations of the datasets.

Where possible, circumstances over which an individual has very little control, such as the dominant religion in a household, ethnicity, existence of a disability, or the education of the mother or father of the respondent were selected.

Additional factors of interest for study are geographical variables, such as province or city in a given country, but inclusion would have affected comparability across countries. Geographic variables can be analysed in future work focusing on one country only.

Gaps and limitations

The available datasets limit the scope of this analysis somewhat. First, several relevant circumstances cannot be captured. For example, level of parent's education, or type of work in which parents were engaged were not available. Second, employment data is not fully consistent with other proxies used to measure decent work, or other indicators identified in the SDGs.

Furthermore, and consistent with similar studies on inequalities among groups, this analysis does not consider inequality within groups.³⁸ Even within homogenous groups, additional unobserved circumstances, or different levels of effort, may affect outcomes. This analysis only calculates observable average access to opportunity for each group, and thus draws conclusions on gaps and inequality based on these average observations.

Finally, recent literature on inequality of opportunity also links inequality of outcome with inequality of opportunity, by calculating the share of income inequality (inequality of outcome) that can be explained by the circumstances of each group.³⁹ The analysis in this Series of policy papers does not follow the same approach.

TABLE A2**Logit model results: Employment**

	LAO PDR (1)			SRI LANKA (2)			BHUTAN (3)			MALAYSIA (4)			TURKEY (5)		
	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR
(Intercept)	-0.8 *	0.43		-0.56	0.44		-0.09	0.38		0.32	0.46		-0.32	0.40	
SexFemale	-0.45**	0.21	0.64	-0.84***	0.22	0.43	-0.7***	0.22	0.50	-0.34 *	0.18	0.71	-0.7***	0.20	0.50
AgeGroup25-49	0.06	0.31		0.76 *	0.44	2.14	0.34	0.35		0.94***	0.27	2.56	0.2	0.33	
AgeGroup50-64	-0.18	0.39		0.29	0.49		0.2	0.52		0.17	0.37		-0.08	0.43	
MaritalStatusMarried	0.09	0.34		-0.05	0.37		-0.44	0.34		0.04	0.22		0.32	0.29	
MaritalStatusSeparated etc	0.58	0.6		-0.51	0.61		-0.36	0.51		-0.13	0.48		1.22 *	0.69	3.40
HaveChildrenYes	-0.44 *	0.24	0.64	-0.31	0.24		-0.07	0.27		-0.09	0.19		-0.24	0.23	
EducationSecondary	0.61***	0.23	1.85	0.51**	0.23	1.67	-0.29	0.24		-0.63	0.42		0.49	0.30	
EducationTertiary	1.7***	0.33	5.46	1.81***	0.53	6.12	-0.29	0.44		-0.42	0.42		1.04***	0.33	2.83
ResidenceRural	-0.54**	0.24	0.58	-0.14	0.23		-0.5**	0.22	0.61						
	PAKISTAN (6)			INDONESIA (7)			BANGLADESH (8)			IRAN (ISLAMIC REPUBLIC OF) (9)			SINGAPORE (10)		
	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR
(Intercept)	0.11	0.33		0.09	0.35		-0.03	0.38		-3.44***	0.65		0.45	0.56	
SexFemale	-0.15	0.26		-1.02***	0.19	0.36	-0.56**	0.27	0.57	-0.18	0.26		-0.37	0.23	
AgeGroup25-49	0.07	0.28		0.42	0.32		-0.1	0.35		1.06**	0.51	2.87	1.3***	0.48	3.67
AgeGroup50-64	-0.54	0.4		-0.21	0.4		-0.48	0.43		0.16	0.67		0.52	0.5	
MaritalStatusMarried	0.2	0.28		-0.52 *	0.3	0.59	0.54	0.38		0.34	0.35		-0.33	0.31	
MaritalStatusSeparated etc	-0.64	0.87		-0.06	0.42		0.87	0.8		-14.29	659.04		-0.42	0.46	
HaveChildrenYes	-0.3	0.26		-0.14	0.21		-0.24	0.27		0.08	0.28		0.21	0.29	
EducationSecondary	0.04	0.21		0.13	0.2		-0.16	0.23		0.66	0.47		0.19	0.39	
EducationTertiary	-0.07	0.32		0.71**	0.35	2.03	0.78	0.66		1.29***	0.47	3.64	0.95**	0.46	2.60
ResidenceRural	-0.32 *	0.19	0.724	-0.23	0.18		-0.49**	0.23	0.61						
	JAPAN (11)			CHINA (12)			INDIA (13)			AUSTRALIA (14)			PHILIPPINES (15)		
	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR
(Intercept)	0.16	0.8		-0.53***	0.16		0.45***	0.16		-0.52	1.27		0.14	0.36	
SexFemale	-0.94***	0.23	0.389	-0.51***	0.09	0.60	-0.4***	0.11	0.67	-0.22	0.21		-1 ***	0.19	0.37
AgeGroup25-49	0.34	0.49		0.83***	0.19	2.29	0.3**	0.15	1.35	0.99**	0.45	2.69	-0.15	0.28	
AgeGroup50-64	-0.16	0.53		0.28	0.22		0.09	0.2		0.59	0.44		-0.88**	0.35	0.41
MaritalStatusMarried	0.17	0.33		-0.26	0.17		0.05	0.16		0.11	0.26		-0.27	0.25	
MaritalStatusSeparated etc	0.34	0.47		-0.43	0.28		0.09	0.28		0.61 *	0.32	1.83	0.07	0.27	
HaveChildrenYes	-0.22	0.28		0.16 *	0.09	1.18	0.04	0.11		-0.53**	0.26	0.59	0.43**	0.22	1.53
EducationSecondary	0.62	0.66		0.96***	0.1	2.61	-0.26**	0.11	0.78	-0.11	1.28		0.06	0.22	
EducationTertiary	0.77	0.67		1.46***	0.16	4.31	-0.56***	0.19	0.57	0.23	1.28		1.16***	0.33	3.19
ResidenceRural	0.13	0.24		-0.75***	0.1	0.47	-0.1	0.11		-0.31	0.22		-0.75***	0.19	0.47
	VIET NAM (16)			THAILAND (17)			CAMBODIA (18)			MYANMAR (19)			NEW ZEALAND (20)		
	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR
(Intercept)	-0.58	0.38		-0.28	0.34		-0.72 *	0.41		-0.27	0.39		-0.35	0.61	
SexFemale	-0.47***	0.18	0.627	-0.61***	0.18	0.55	-0.42 *	0.23	0.66	-0.53***	0.19	0.59	-0.54***	0.18	0.59
AgeGroup25-49	0.28	0.33		0.26	0.3		0.02	0.35		-0.08	0.33		1.74***	0.4	5.72
AgeGroup50-64	-0.02	0.39		-0.31	0.36		-0.86 *	0.46	0.42	-0.85**	0.4	0.43	1.31***	0.41	3.69
MaritalStatusMarried	-0.16	0.3		-0.43	0.27		-0.21	0.36		-0.05	0.27		-0.09	0.24	
MaritalStatusSeparated etc	-0.48	0.53		0.34	0.33		-0.1	0.49		0.14	0.51		-0.27	0.28	
HaveChildrenYes	0.07	0.21		-0.06	0.18		-0.13	0.29		-0.01	0.22		-0.16	0.21	
EducationSecondary	-0.05	0.21		0.5**	0.21	1.64	0.53	0.4		-0.43 *	0.24	0.65	0.04	0.51	
EducationTertiary	1.37***	0.28	3.94	0.83***	0.3	2.303	1.25**	0.54	3.476	-0.24	0.36		-0.05	0.51	
ResidenceRural	-0.39**	0.19	0.68	-0.29	0.18		-0.32	0.27		-0.26	0.22				

ANNEX: METHODOLOGY FOR IDENTIFYING GAPS IN ACCESS TO OPPORTUNITIES

	REPUBLIC OF KOREA (21)			UZBEKISTAN (22)			AFGHANISTAN (23)			GEORGIA (24)			KAZAKHSTAN (25)		
	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR
(Intercept)	-1.13	0.85		-0.22	0.35		-3.43***	0.62		0.01	0.54		-1.66***	0.62	
SexFemale	0.02	0.19		-0.86***	0.19	0.42	-0.98***	0.37	0.38	-0.15	0.21		0.25	0.18	
AgeGroup25-49	0.64 *	0.36	1.90	0.1	0.31		1.04**	0.47	2.82	0.38	0.4		0.76**	0.33	2.13
AgeGroup50-64	0.32	0.44		-0.25	0.37		1.19**	0.6	3.29	0.11	0.44		0.96**	0.4	2.62
MaritalStatusMarried	-0.41	0.32		0.01	0.31		0.46	0.5		-0.31	0.3		0.21	0.28	
MaritalStatusSeparated etc	-1.2**	0.47	0.3	0.28	0.42		1.4 *	0.82	4.04	-0.22	0.36		0.31	0.3	
HaveChildrenYes	0.08	0.3		-0.59***	0.2	0.56	-0.31	0.58		0.26	0.24		0.14	0.21	
EducationSecondary	1.38 *	0.81	3.99	0.3	0.3		1.51***	0.32	4.51	-0.18	0.54		1.1**	0.55	2.99
EducationTertiary	1.46 *	0.82	4.31	1.16***	0.37	3.21	2.58***	0.39	13.21	0.17	0.55		1.37**	0.56	3.93
ResidenceRural				-0.15	0.18		-0.16	0.34		-0.81***	0.23	0.45	0.18	0.19	
	KYRGYZSTAN (26)			RUSSIAN FEDERATION (27)			ARMENIA (28)			AZERBAIJAN (29)			MONGOLIA (30)		
	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR
(Intercept)	0.57	0.5		-0.01	0.43		-2.44***	0.67		-1.58***	0.5		-1.85***	0.4	
SexFemale	-0.31	0.21		0.29**	0.15	1.34	0.02	0.21		-0.4**	0.18	0.67	0.13	0.18	
AgeGroup25-49	0.17	0.35		0.7***	0.24	2.02	0.46	0.38		0.73**	0.32	2.07	0.51	0.33	
AgeGroup50-64	-0.06	0.43		0.25	0.28		0.57	0.41		0.52	0.39		0.46	0.41	
MaritalStatusMarried	0.26	0.36		0.22	0.21		-0.19	0.32		-0.04	0.29		0.15	0.29	
MaritalStatusSeparated etc	0.05	0.45		0.11	0.23		-0.64	0.4		-0.1	0.38		0.79**	0.35	2.21
HaveChildrenYes	-0.05	0.26		-0.44***	0.17	0.64	0.32	0.23		-0.31	0.19		0.03	0.22	
EducationSecondary	-0.9**	0.44	0.41	0.78 *	0.42	2.18	1.74***	0.62	5.69	1.24***	0.45	3.46	1.07***	0.26	2.92
EducationTertiary	-0.56	0.47		0.76 *	0.44	2.14	2.41***	0.65	11.19	2.2***	0.49	9.06	1.92***	0.28	6.83
ResidenceRural	-0.75***	0.23	0.48	-0.08	0.2		-1.07***	0.23	0.34	-0.81***	0.17	0.44	-0.49***	0.18	0.61
	NEPAL (31)			TAJIKISTAN (32)			TURKMENISTAN (33)								
	COEFF	SE	OR	COEFF	SE	OR	COEFF	SE	OR						
(Intercept)	-0.43	0.43		-1.86***	0.48		0.95**	0.44							
SexFemale	-1.54***	0.23	0.21	-0.3	0.19		-0.69***	0.18	0.50						
AgeGroup25-49	-0.16	0.34		0.41	0.31		0.98***	0.25	2.67						
"															
AgeGroup50-64	-1.22**	0.5	0.30	0.33	0.37		0.8**	0.37	2.23						
MaritalStatusMarried	0.37	0.41		0.29	0.35		0.5 *	0.26	1.65						
MaritalStatusSeparated etc	1.34 *	0.73	3.80	0.85	0.52		0.35	0.36							
HaveChildrenYes	-0.09	0.3		-0.15	0.27		0.11	0.2							
EducationSecondary	0.78***	0.25	2.17	1.01***	0.34	2.76	-1.29***	0.42	0.27						
EducationTertiary	1.76***	0.43	5.80	1.83***	0.36	6.26	0.13	0.52							
ResidenceRural	-1.04***	0.3	0.35	-0.51**	0.22	0.60	0.12	0.18							

Source: UNESCAP elaboration based on Gallup World Poll.

Notes: Base references are: Male. Under 25 years old. Single. No children. Lower education. Rural area.

Coeff = Coefficient

SE = Standard Error

OR = Odds Ratio

*** 1% level of significance

** 5% level of significance

* 10% level of significance

References

- 1 International Labour Organization. *World Employment and Social Outlook: Trends 2017*. Geneva, 2017.
- 2 International Labour Organization (2015). *Key Indicators of the Labour Market* (KILM). Available from <http://www.ilo.org/global/statistics-and-databases/research-and-databases/kilm/lang--en/index.htm>. Accessed on 15 December 2017.
- 3 International Labour Organization. *Global Wage Report 2016/2017*. Geneva, 2016.
- 4 ESCAP. *Statistical Yearbook for Asia and the Pacific 2016: SDG Baseline Report*. Bangkok, 2016.
- 5 ESCAP. 2016. *Statistical Yearbook for Asia and the Pacific 2016: SDG Baseline Report*. Bangkok, 2016.
- 6 Wang, Chen and Jiajun Lan. Inequality, Aging and the Middle Income Trap. Asian Development Bank Institute Working Paper Series, No. 785. October 2017.
- 7 International Labour Organization. 2017. *World Social Protection Report: Universal social protection to achieve the Sustainable Development Goals*. Geneva, 2017.
- 8 Asian Development Bank. *Social Protection Indicator (SPI): Assessing Results for the Pacific*. Manila, 2016.
- 9 Asian Development Bank. *Social Protection Indicator (SPI): Assessing Results for the Pacific*. Manila, 2016.
- 10 International Labour Organization, *World of Work Magazine*, No. 47, 2003. Available from http://www.ilo.org/global/publications/world-of-work-magazine/issues/DWCMS_080608/lang--en/index.htm. Accessed on 15 December 2017.
- 11 International Labour Organization (2015). *Key Indicators of the Labour Market* (KILM). Available from <http://www.ilo.org/global/statistics-and-databases/research-and-databases/kilm/lang--en/index.htm>. Accessed on 15 December 2017.
- 12 International Labour Organization (2015). *Key Indicators of the Labour Market* (KILM). Available from <http://www.ilo.org/global/statistics-and-databases/research-and-databases/kilm/lang--en/index.htm>. Accessed on 15 December 2017.
- 13 International Labour Organization. *Global Wage Report 2016/2017*. Geneva, 2016.
- 14 Urdal, Henrik. A clash of generations? Youth bulges and political violence. *Expert Paper*, No. 2012/1. New York, NY: United Nations, 2011. Available from http://www.un.org/esa/population/meetings/egm-adolescents/p10_urdal.pdf. And Azeng, Therese F. and Yogo, Thierry U. Youth unemployment, education and political instability: evidence from selected developing countries 1991-2009. *Working Paper*, No. 200. Brighton, UK: 2015. Available from <http://www.hicn.org/wordpress/wp-content/uploads/2012/06/HICN-WP-200.pdf>.
- 15 International Labour Organization. *Working towards Sustainable Development: Opportunities for decent work and social inclusion in a green economy*. Geneva, 2012.
- 16 ILO, *Safety and Health in Agriculture, Safe Work*. Available from http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/publication/wcms_110193.pdf
- 17 International Labour Organization. *Do we have to choose between creating jobs and protecting the climate?* 4 June 2015. Available from http://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_373207/lang--en/index.htm.
- 18 United Nations, Department of Economic and Social Affairs. ECOSOC talks green jobs, income inequality and unemployment. New York, 2015.
- 19 International Labour Organization. *Do we have to choose between creating jobs and protecting the climate?* 4 June 2015. Available from http://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_373207/lang--en/index.htm.
- 20 Shorrocks, Anthony F. Decomposition procedures for distributional analysis: a unified framework based on the Shapley value. *Journal of Economic Inequality*, Vol. 11, No. 1 (December 2013).
- 21 Hunter, B.H. Social exclusion, social capital, and indigenous Australians: Measuring the social costs of unemployment. *Centre for Aboriginal Economic Policy Research*, Issue No. 204 (2000).
- 22 Tobias, Martin and others. Changing trends in indigenous inequalities in mortality: lessons from New Zealand. *International Journal of Epidemiology*, Vol. 38, No. 6 (30 March 2009).
- 23 Australian Bureau of Statistics. 2015. *National Aboriginal and Torres Strait Islander Social Survey, 2014-15*. Available from <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4714.0~2014-15~Main%20Features~Labour%20force%20characteristics~6>. Accessed 8th Nov 2017.
- 24 Trading Economics. 2017. *Australia Unemployment Rate*. Available from <https://tradingeconomics.com/australia/unemployment-rate>. Accessed 8th Nov 2017.
- 25 Gupta, Shagun. Development in times of transition: The socio-economic status of Rakhine State, Myanmar. Working Paper: Livelihoods and Food Security Trust Fund.
- 26 Rudaw. Unemployment rate in Iran's Kurdish province passed 60 per cent. 3 November 2017. Available from <http://www.rudaw.net/english/middleeast/iran/11032017>.
- 27 Basnews. Unemployment rate increasing in Kurdistan region. 7 May 2015. Available from <http://www.basnews.com/index.php/en/economy/kurdistan/348354>.
- 28 Australian Council of Trade Unions. Indigenous issues. Available from <http://www.actu.org.au/our-work/policy-issues/indigenous-workers>.
- 29 Srivastava, Ravi S. Bonded Labor in India: Its incidence and pattern. Working Paper: Special Action Programme to Combat Forced Labour. Geneva, 2005.
- 30 International Dalit Solidarity Network. *Caste-based slavery in Nepal*. Available from <http://idsn.org/key-issues/caste-based-slavery/dalit-women-in-nepal/>.
- 31 Salazar-Xirinachs, Jose M, Nübler, Irmgard and Kozul-Wright, Richard, eds. *Transforming economies: Making industrial policy work for growth, jobs and development*. Geneva: ILO, 2014.

- 32 UNCTAD. Background note: Macroeconomic policies to promote job creation. UNCTAD contribution to the Special High-level Meeting of the Economic and Social Council with the Bretton Woods Institutions, the World Trade Organization, and the United Nations Conference on Trade and Development, New York, 12-13 March 2012.
- 33 UNCTAD. Background note: Macroeconomic policies to promote job creation. UNCTAD contribution to the Special High-level Meeting of the Economic and Social Council with the Bretton Woods Institutions, the World Trade Organization, and the United Nations Conference on Trade and Development, New York, 12-13 March 2012.
- 34 United Nations, Economic and Social Commission for Asia and the Pacific. *Time for Equality: The Role of Social Protection in Reducing Inequalities in Asia and the Pacific*. Bangkok, 2015.
- 35 Sparreboom, Theo and Staneva, Anita. Is education the solution to decent work for youth in developing economies?: Identifying qualifications mismatch from 28 school-to-work transition surveys. *Work for Youth Publication Series*, No. 23. (December 2014).
- 36 United Nations Development Programme. *Humanity Divided: Confronting Inequality in Developing Countries*. New York, 2013.
- 37 Kelleher, John D., Brian Mac Namee, Aoife D'Arcy. *Fundamentals of Machine Learning for Predictive Data Analytics: Algorithms, Worked Examples, and Case Studies*. The MIT Press Cambridge, Massachusetts.
- 38 Ferreira, F and Gignoux, J. (2011). *The Measurement of Inequality of Opportunity: Theory and Application to Latin America. Review of Income and Wealth*. International Association for Research in Income and Wealth.
- 39 European Bank for Reconstruction and Development. *Transition Report 2016–17: Transition for All: Equal Opportunities in an Unequal World*. London, 2017.

Inequality of Opportunity in Asia and the Pacific: Decent Work

Reducing inequality in all its forms is at the heart of the 2030 Agenda for Sustainable Development. It is emphasized in the stand-alone Goal 10 “Reduce inequality within and among countries” and in other Goals that call for universality and for ‘leaving no one behind’. Reducing inequality advances human rights and social justice and is fundamental for all three dimensions of sustainable development.

The ESCAP *Inequality of Opportunity* papers identify seven areas of basic opportunities where inequality jeopardizes a person’s life prospects, namely; education; women’s access to health care; children’s nutrition; decent employment; basic water and sanitation; access to clean energy; and financial inclusion. Each of these opportunities are covered by specific commitments outlined in the 2030 Agenda for Sustainable Development and addressed in a separate thematic paper covering 33 countries throughout Asia and the Pacific.

This paper on Inequality of Opportunity in Decent Work explores gaps between in-country groups in accessing decent employment. The analysis identifies the furthest behind, using full-time employment as a proxy, and analyses inequalities to determine the relative contribution of each underlying circumstance. Ultimately, these findings are of direct use for generating discussion on transformations needed to reach the “furthest behind first” as pledged in the 2030 Agenda.

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