Chapter I

UN Photo/Kibae Park

Introduction

Nearly half of the world's population, including four out of five people living below the poverty line, live in rural areas. Extreme poverty is concentrated mainly in rural areas. Rural people also generally have less access to education, health and other essential services. Additionally, production and distribution of agricultural products—such as coffee, tea, bananas and palm oil—which largely engage rural people, often involve human rights abuses. Gender inequality, poor working conditions and the violation of indigenous land rights, for example, have often been reported in the supply chains of these products. Clearly, inclusion and improvement of the well-being of the rural population must become a focus or sustainable development cannot be achieved. The general principle of the 2030 Agenda for Sustainable Development to leave no one behind also highlights this imperative. However, the rural populations need not be viewed as *passive* recipients of attention. Instead, with the adoption of appropriate strategies, rural development can play an active role, serving as a driver for achieving the Sustainable Development Goals (SDGs).

The role of rural development is not limited to achieving the prosperity-related SDGs only. The natural capital of humankind lies predominantly in rural areas. Agriculture, the primary economic activity in rural areas, is more intimately connected with nature than are urban economic activities. Appropriate rural development strategies are therefore intrinsic to protecting the health of the planet—a critical and unifying objective for all.

It is possible to adopt two views of the role of the rural population in sustainable development. One is the *narrow* view, focusing on the connection between rural development and the SDGs regarding poverty (SDG 1), hunger (SDG 2), and equality (SDG 5 and SDG 10). The other is the *broader* view that emphasizes the wider range of connections, including those between rural development and SDG 6 (clean water and sanitation), SDG 7 (clean energy), SDG 8 (economic growth and decent work), SDG 9 (infrastructure), SDG 11 (sustainable communities), SDG 12 (responsible consumption and production), SDG 13 (climate change), SDG 14 (life below water) and SDG 15 (life on land). That so many SDGs are connected with rural development should not be surprising because the SDGs themselves are interrelated.

The discussion of rural development has so far focused more on its relationship with the SDGs related to poverty, hunger and inequality. However, given the above noted persistence of poverty and other material deprivations in rural areas, it is necessary to re-examine the current rural development strategies from the viewpoint of those SDGs, too. That is indeed one of the goals of the *World Social Report 2021*.

The other major goal of this report is to expand the discussion to include the role of rural development in achieving the wider set of SDGs. In doing so, it will pay particular attention to the connections of rural development with SDGs 6, 8, 9, 11, 13, 14 and 15. However, an exhaustive discussion of all aspects of these connections is beyond the scope of a single report. Attention will therefore be focused on those connections that have a potential nexus role, capable of exerting influence in multiple directions.

Several recent events have highlighted the importance of rethinking current rural development strategies. First is the COVID-19 tragedy, which has pointed to the necessity of protection of forests and wilderness in order to prevent frequent occurrences of zoonotic epidemics and pandemics, such as COVID-19 itself. Needless to say, greater protection of forests and wilderness would require modifications of the current rural development strategies. Second, unprecedented farmers' protests, such as the one seen recently in India, and resentment of rural people towards national authorities, as observed in many other countries,[1]

1 The Yellow Vest movement in France and elsewhere, for example, contained an element of protest against rural-urban disparity.

show that neglect of the rural population and agricultural policy issues can expand the rural-urban divide into a political problem. Third, digital technologies of the fourth industrial revolution are undercutting the very economic rationale of the rural-urban divide, thus changing the paradigm within which rural development has so far been considered and discussed. Finally, the adverse effects of climate change are gathering force, including their negative impact on agriculture and rural economies. Coping with these effects also requires rethinking rural development strategies. These recent events, along with existing challenges, have combined to make a reconsideration of current rural development patterns urgent.

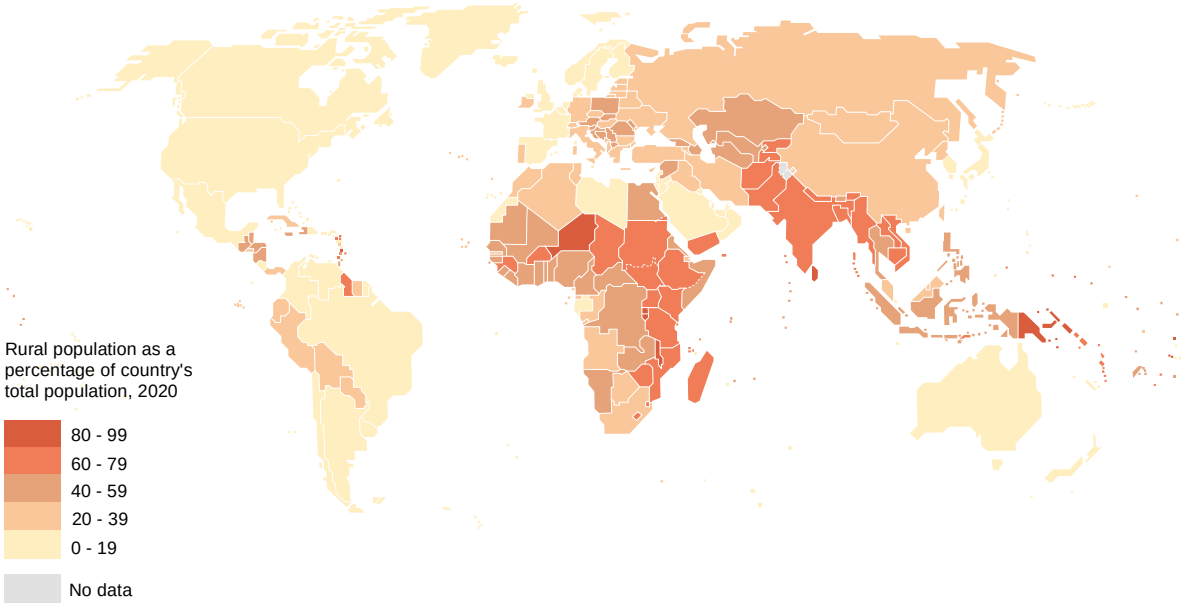
The rural world: an overview

To begin with, it is important to be aware that the importance and state of the rural economy and population differ widely across countries. The discussion of rural development must therefore begin by establishing the broad facts regarding this variation.

The share of rural population in national population differs greatly from country to country, and so does the depth of the rural development challenge. About 90 per cent of the world's rural population lives in countries where rural population constitutes at least 30 per cent of the national population (table I.1 and figure I.1). In fact, more than 50 per cent lives in countries where the rural population constitutes more than 60 per cent of the national population. Also, about 70 per cent of the world's rural population lives in low-income or lower-middle-income countries (figure I.2), and rural population comprises about 60 and 67 per cent of the population in lower-middle income and low-income countries, respectively (figure I.3). It is therefore clear that the issue of rural development is central for low- and lower-middle-income countries. However, even in high-income countries, rural populations comprise about one fifth of the population, making rural development important for these countries also. More importantly, rural areas are critical for the ecology and environment of a country, so that that the importance of rural development cannot be gauged only by the share

Figure I.1

Rural population as a percentage of country's total population, 2020



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.
Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan.
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A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

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Source: UN DESA, based on data from United Nations (2019b).

Table I.1

Rural population as a percentage of total population across countries, 2020

Rural population as a percentage of country's total population	Countries	Number of countries	Millions of rural people (percentage of global rural population)
0 to < 5	Anguilla, Belgium, Bermuda, Cayman Islands, Gibraltar, Guadeloupe, Holy See, Hong Kong SAR, Kuwait, Macao SAR, Monaco, Nauru, Qatar, Réunion, San Marino, Singapore, Sint Maarten (Dutch part), United States Virgin Islands, Uruguay	19	0.4 (0.01)
5 to < 10	Argentina, Gabon, Guam, Iceland, Israel, Japan, Jordan, Luxembourg, Malta, Netherlands, Northern Mariana Islands, Puerto Rico, Turks and Caicos Islands	13	17 (0.5)
10 to < 20	American Samoa, Andorra, Australia, Bahamas, Bahrain, Brazil, Canada, Chile, Colombia, Costa Rica, Curaçao, Denmark, Dominican Republic, Finland, France, French Guiana, Greenland, Lebanon, Libya, Martinique, Mexico, New Zealand, Norway, Oman, Palau, Republic of Korea, Saint Pierre and Miquelon, Saudi Arabia, Spain, Sweden, United Arab Emirates, United Kingdom, United States, Venezuela (Bolivarian Republic of), Western Sahara	35	196 (5.7)
20 to < 30	Algeria, Belarus, Bolivia (Plurinational State of), Botswana, Brunei Darussalam, Bulgaria, Cook Islands, Cuba, Czechia, Djibouti, Dominica, El Salvador, Equatorial Guinea, Falkland Islands (Malvinas), Germany, Greece, Hungary, Iran (Islamic Republic of), Iraq, Italy, Malaysia, Marshall Islands, New Caledonia, Peru, Russian Federation, São Tomé and Príncipe, State of Palestine, Switzerland, Taiwan Province of China, Turkey	30	180 (5.3)
30 to < 40	Albania, Angola, Armenia, Cabo Verde, China, Congo, Cyprus, Dem. People's Republic of Korea, Ecuador, Estonia, French Polynesia, Gambia, Ireland, Latvia, Lithuania, Mongolia, Montenegro, Morocco, Panama, Paraguay, Portugal, South Africa, Suriname, Tunisia, Tuvalu, Ukraine	26	644 (18.9)
40 to < 50	Austria, Azerbaijan, Cameroon, Côte d'Ivoire, Croatia, Fiji, Georgia, Ghana, Guatemala, Haiti, Honduras, Indonesia, Isle of Man, Jamaica, Kazakhstan, Kiribati, Liberia, Mauritania, Namibia, Nicaragua, Nigeria, Poland, Romania, Saint Vincent and the Grenadines, Serbia, Seychelles, Slovakia, Slovenia, Syrian Arab Republic, TFYR Macedonia, Thailand, Trinidad and Tobago, Turkmenistan, Uzbekistan	34	395 (11.6)
50 to < 60	Aruba, Belize, Benin, Bhutan, Bosnia and Herzegovina, British Virgin Islands, Central African Republic, Democratic Republic of the Congo, Egypt, Eritrea, Faeroe Islands, Guinea-Bissau, Maldives, Mali, Mauritius, Mayotte, Niue, Philippines, Republic of Moldova, Saint Helena, Senegal, Sierra Leone, Somalia, Togo, Zambia	25	233 (6.8)
60 to < 70	Bangladesh, Barbados, Burkina Faso, Channel Islands, Grenada, Guinea, India, Kyrgyzstan, Lao People's Democratic Republic, Madagascar, Mozambique, Myanmar, Pakistan, Saint Kitts and Nevis, Sudan, Timor-Leste, United Republic of Tanzania, Viet Nam, Yemen, Zimbabwe	20	1,405 (41.1)
70 to < 80	Afghanistan, Antigua and Barbuda, Cambodia, Chad, Comoros, Ethiopia, Guyana, Kenya, Lesotho, Micronesia (Fed. States of), Nepal, Solomon Islands, South Sudan, Eswatini, Tajikistan, Tonga, Uganda, Vanuatu	18	262 (7.7)
80 to < 90	Burundi, Liechtenstein, Malawi, Niger, Papua New Guinea, Rwanda, Saint Lucia, Samoa, Sri Lanka	9	83 (2.4)
90 to 100	Montserrat, Tokelau, Wallis and Futuna Islands	3	0.02 (0.001)
Total		**232**	**3,417 (100.0)**

Source: UN DESA, based on data from United Nations (2019b).

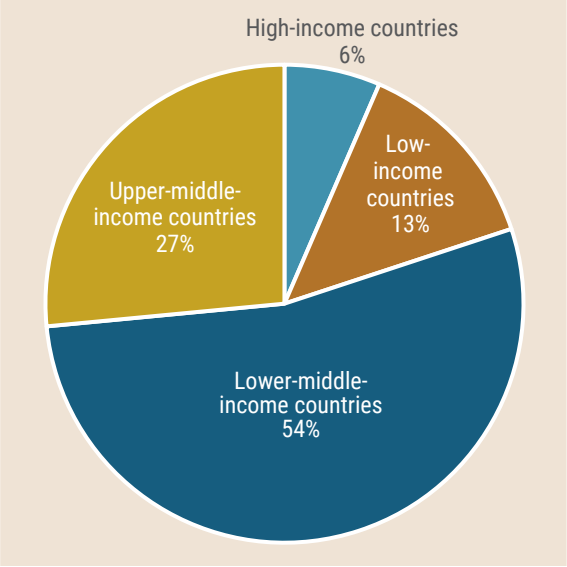
of population living in rural areas. From this viewpoint, strategies of rural development assume much greater significance for upper-middle-income and high-income countries than it may appear if focusing just on the shares of rural population in total population in these countries.

While table I.1 and figures I.1, I.2 and I.3 show the *location* of the rural population across the world, they do not provide the information regarding the ***depth*** of the rural development challenge. One reflection of this challenge is the rural-urban disparity. Although this disparity is multidimensional, rural-urban differences in per capita income can be an important indicator. Unfortunately, per capita income data, disaggregated by rural and urban areas, are not readily available. Therefore, table I.2 and figure I.4 use the per capita (of the agricultural population) agriculture value added as a proxy for per capita rural income. Needless to say, this approach has a number of weaknesses, because many people in rural areas are engaged either entirely or partly in non-farm activities, so that per capita rural income may differ from the per capita agricultural value added. Be that as it may, even this imperfect proxy can help to throw some light on the rural-urban disparity across the world.

The numbers in table I.2 show that for most country categories, the per capita agricultural gross domestic product (GDP) is much lower than the per capita GDP of the country as a whole. This is true for all countries with up to $5,000 per capita agricultural GDP. This is also true for countries belonging to such upper ranges as $20,000–$30,000 and also $30,000–$40,000 of per capita agricultural GDP. For many groups, the ratios of per capita agricultural GDP to per capita total GDP were exceedingly low, ranging from 55 to 65 per cent. Clearly, these ratios would have been even lower if the per capita agricultural GDP was compared with per capita *non-agricultural* GDP and not with per capita ***total*** GDP. Table 1.2 also reveals the other side of the picture, namely that for some categories of countries, per capita agricultural GDP was higher than per capita total GDP. This shows that agriculture does not necessarily have to be the sector with lower productivity. With the upgradation of technology to the industrial level, agriculture can achieve higher labour productivity than in other sectors of the economy, including manufacturing.

Figure I.2

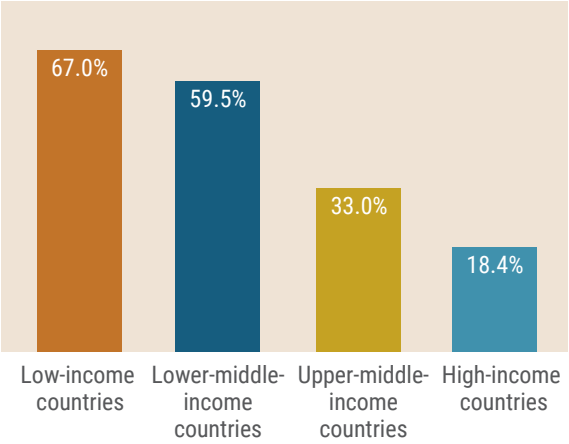
Share of world's rural population by country income group, 2020



Source: UN DESA, based on data from World Bank (2021).

Figure I.3

Share of rural population in total population by country income group, 2020



Source: UN DESA, based on data from United Nations (2019b) and World Bank (2021).

Despite the contrary examples, table I.2 shows that 71.3 per cent of the world's rural population lives in countries where the agricultural per capita income is lower than the per capita income of the country as a whole. This shows that the rural-urban income disparity is real, pervasive and, for many countries, quite high. Table I.2 also shows that the problem of rural-urban

Table I.2

Gap between the per capita income in the agriculture sector and per capita GDP across countries, 2019

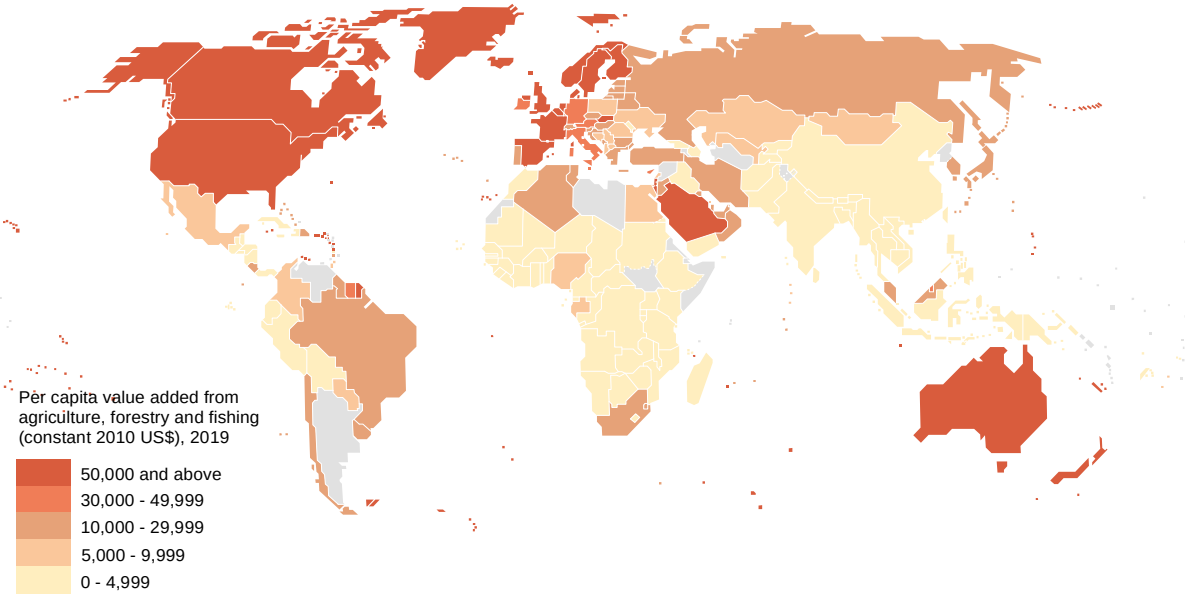
Per capita value added from agriculture, forestry and fishing (AFF) (US$)	Countries	Number of countries	Population size (percentage of global population)		Population-weighted average of AFF per capita value added (US$)	Population-weighted average of gross GDP per capita (US$)	Ratio of population-weighted AFF per capita value added to population-weighted gross GDP per capita (%)
			Total	Rural			
0 to < 500	Burundi, Central African Republic, Democratic Republic of Congo, Madagascar, Mozambique, Zimbabwe	6	179 (2.3)	109 (3.2)	353	525	67
500 to < 1,000	Ethiopia, Guinea, Guinea-Bissau, Lao PDR, Liberia, Malawi, Nepal, Niger, Rwanda, Uganda, United Rep. of Tanzania, Timor-Leste, Zambia	13	349 (4.5)	258 (7.5)	694	811	86
1,000 to < 2,000	Afghanistan, Angola, Bangladesh, Bhutan, Bolivia (Plurinational State of), Botswana, Burkina Faso, Cambodia, Cameroon, Chad, Congo, Equatorial Guinea, Gambia, Georgia, Haiti, India, Iraq, Kenya, Lesotho, Mali, Mauritania, Myanmar, Pakistan, Sierra Leone, Tajikistan, Togo, Viet Nam, Yemen	28	2,253 (29.2)	1,432 (41.9)	1,785	1,887	95
2,000 to < 3,000	Azerbaijan, Benin, Comoros, Côte d'Ivoire, El Salvador, Fiji, Guatemala, Honduras, Kyrgyz Republic, Nicaragua, Papua New Guinea, Peru, São Tomé and Príncipe, Senegal, Sri Lanka	15	175 (2.3)	85 (2.5)	2,616	3,034	86
3,000 to < 4,000	Cuba, Ecuador, Ghana, Moldova, Morocco, Philippines, Saint Lucia, Thailand	8	277 (3.6)	129 (3.8)	3,402	4,203	81
4,000 to < 5,000	Belize, Cabo Verde, China, Indonesia, Jamaica, Namibia, Panama, Samoa, Singapore, Sudan	10	1,749 (22.7)	714 (20.9)	4,178	7,363	57
5,000 to < 10,000	Albania, Bahrain, Bosnia and Herzegovina, Colombia, Egypt, Gabon, Kazakhstan, Lebanon, Maldives, Mexico, Mongolia, Nigeria, North Macedonia, Paraguay, Poland, Romania, Serbia, Tonga, Trinidad and Tobago, Ukraine, Uzbekistan	21	676 (8.8)	266 (7.8)	6,124	5,195	118
10,000 to < 20,000	Algeria, Bahamas, Belarus, Brazil, Bulgaria, Chile, Costa Rica, Croatia, Dominican Republic, Eswatini, Hong Kong SAR, Iran, Jordan, Kuwait, Latvia, Lithuania, Malaysia, Mauritius, Montenegro, Oman, Portugal, Qatar, Republic of Korea, Russian Federation, South Africa, Saint Vincent and the Grenadines, Tunisia, Turkey, West Bank and Gaza	29	827 (10.7)	177 (5.2)	14,948	11,416	131
20,000 to < 30,000	Czech Republic, Estonia, Greece, Guyana, Hungary, Japan, Slovenia, Switzerland, United Arab Emirates, Uruguay	10	184 (2.4)	24 (0.7)	25,150	40,154	63
30,000 to < 40,000	Austria, Brunei Darussalam, Cyprus, Ireland, Luxembourg, Suriname	6	16 (0.2)	6 (0.2)	36,236	56,650	64
40,000 to < 50,000	Germany, Italy, Malta	3	142 (1.8)	36 (1.1)	43,369	41,771	104
50,000 and above	Australia, Belgium, Canada, Denmark, Finland, France, Iceland, Israel, Netherlands, New Zealand, Norway, Saudi Arabia, Slovak Republic, Spain, Sweden, United Kingdom, United States	17	679 (8.8)	116 (3.4)	75,667	49,105	154
Total		166	7,507 (97.3)	3,352 (98.2)			

Source: UN DESA, based on data from United Nations (2019b) and World Bank (2021).

Figure I.4

Per capita value added from agriculture, forestry and fishing, 2019

Constant 2010 US$



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Source: UN DESA, based on data from United Nations (2019b) and World Bank (2021).

disparity is not confined to developing countries, but applies to many developed countries too.

As already noted, income cannot be the sole indicator of the performance of the rural development strategy. Even using a broader set of socioeconomic indicators may not be sufficient for that purpose. The environmental dimension, or the impact of rural economic activities on the natural environment, also needs to be taken into consideration. Indeed, the lives and livelihoods of the rural population depend on the complex interaction between their economic activities, the quality of their social condition, and the management of their environment. It does them little good if rural income is high (economic) but concentrated in the hands of a few (social). It also hurts everyone if economic growth depends on the depletion and degradation of natural resources.

The motivation behind rural transformation often begins with economic growth and employment expansion; but the impacts on social and environmental outcomes may vary depending on the specific strategies adopted for improving agricultural productivity and expansion of the rural non-farm economy. Growth of the non-farm economy without equitable access to productive resources, including education, financing, business services and infrastructures, may widen rural inequality, even as it raises income and reduces poverty in rural areas. Improvement in agricultural productivity could also come at great environmental cost, unless there is more effective use and management of water and land resources. Without concerted policy efforts dedicated to protecting nature, adding industrial and service sectors in rural areas would simply replicate the environmental challenges that these sectors pose in cities.

Many countries have already experienced considerable deforestation and loss of wilderness in paving the way for expansion of agriculture, and now must attempt to redress some of the damage that has been done to the ecology and environment. Other countries are currently in the early stages of the same processes and can still take the necessary measures to pre-

vent or minimize potential damage. Finally, there are countries where these processes are yet to unfold on a large scale who can avoid these issues altogether. While the socioeconomic imperatives for a re-examination of the current rural development strategies may be more urgent for many low-income countries, the environmental imperative may be even higher for many developed and rapidly developing countries.

From either perspective, this question remains: how can rural development be achieved in a way that is oriented towards sustainable development in general and conducive to achieving the SDGs in particular? To address this question, it is useful to take note of the various perspectives that have emerged and influenced rural development strategies—perspectives that reflect the actual experiences of countries over time.

Different perspectives on rural development

Experiences of rural development have differed over time and across regions and countries. The theories of rural development evolving from these experiences have, by necessity, also differed. It is thus not always clear which theoretical perspective is more useful for a country or region at a particular period of time. Moreover, the situations keep changing with each passing year. In particular, the pace of technological innovation has accelerated, and technological changes and globalization are reinforcing each other in ways that change ground conditions rapidly. Strategies of rural development have to be thought of, and adjusted, in the light of these changes.

The history of the early industrializing countries shows that improvements in agricultural productivity had a preceding role in the causation of the first industrial revolution. However, following World War II, many countries became independent after long periods of colonial rule, during which there was rural regress rather than progress, resulting in large rural populations engaged in low productivity activities. This post-colonial reality gave rise to theories of development in the early 1950s that assumed lower labour productivity in rural areas compared with that in urban areas, and viewed transfer of (surplus) labour from the former to the latter as the main engine of economic growth and development. This view was captured well in the Lewis model of development, put forward in 1954.[2] The Lewis model supported the structural change view of development, according to which development meant the rapid decline of the share of agriculture in the economy and the rise of the shares of industry and services. The model also supported the "urbanization view," according to which development entails large-scale migration from rural to urban areas. This view of development assigned rural areas a residual role—namely that of supplying (surplus) labour to urban areas. Under this scenario, rural labour productivity too increased over time, as less labour was available to produce the same previous or greater levels of agricultural output. However, this productivity increase was a subsequent and not a preceding outcome, and the role of rural areas in development was passive, not active.

About the same time as the above theories of development gained ground, robust agricultural growth took place in several East Asian countries, providing a strong foundation for subsequent broad-based industrial growth. This was possible mainly because of the radical land redistribution carried out in these countries, following World War II and the 1949 Chinese Revolution. The experience of these newly industrialized countries again lent support to the possibility of the preceding role of rural development in a country's overall economic transformation process.

Meanwhile, agricultural productivity received a big boost with the Green Revolution in the 1960s, when high-yielding varieties of many crops were introduced, accompanied by controlled irrigation and increased use of chemical fertilizers and pesticides. The experience of the Green Revolution showed that the productivity increase of rural labour did not always have to be a residual process; instead, it could be an independent, if not preceding, process as well.

Theories of rural development are therefore as diverse as actual experiences, making it essential to take note of these experiences in order to develop a proper understanding of how to approach rural devel-

2 This view was most famously articulated by the Nobel Laureate economist Arthur Lewis through his celebrated article, "Economic Development with Unlimited Supplies of Labour" (Lewis, 1954).

opment as a force for sustainable development. While the classical type of structural change—with rapidly declining share of agriculture in the GDP—has indeed taken place, technological changes and the new stage of globalization have opened up the possibilities for non-classical types of structural change and other ways of orienting rural development.[3] Also, in view of agriculture's high dependence on local conditions, it is clear that rural development cannot be the same everywhere. The differences in circumstance and need pose tremendous challenge in creating successful strategies for sustainable rural development.

Different models of rural-urban spatial combination

Problematic nature of rural-urban distinction

The challenge begins with the very issue of demarcation between rural and urban areas. The criteria for distinguishing between the two are problematic. As noted earlier, the most widely used criteria are the size and density of population. However, what is considered to be small or dense for one country may be viewed as large and sparse in another.[4] Another possible criterion is the nature of the predominant economic activity, with areas dominated by agriculture regarded as rural and areas dominated by commerce and industry as urban. A closer observation reveals that the economic criterion actually underpins the population density criterion. Areas dominated by agriculture are, by necessity, sparsely populated, as agricultural activity requires a great deal of open land. By contrast, commerce and industry require many people working in close proximity, so that areas dominated by them are also areas with high density of population, thus qualifying as urban.

There was a time when cities were intentionally separated from surrounding rural areas through the erection of walls, which had the dual purpose of defence (against outside predators) and regulation of flows of people, goods and services between cities and the outside areas. Subsequent developments of technology made walls redundant as a means of defence. The accompanying socioeconomic development also made walls unacceptable as a barrier between rural and urban areas. However, the spatial distinction between rural and urban areas still persists.

Three models of rural-urban spatial combination

Determination of the appropriate rural-urban spatial combination is a nexus issue, because it influences the role of rural development in achieving both the narrow and broader sets of SDGs.

In reviewing the world experience, it is possible to distinguish broadly two models of urbanization, namely the (i) classical and the (ii) greenfield. The classical model refers to urbanization through migration, so that pre-existing towns grow in size to become much larger urban centres, as has actually happened in history and is supported theoretically by the Lewis model, discussed earlier. The greenfield model refers to the growth of new cities through conversion of previously rural areas.[5] Meanwhile, in situ urbanization is a new concept that refers to improvement of the standard of living of the rural population, such that it approximates or equals the one experienced by residents of cities, without migration or conversion into urban areas. While the classical and greenfield models clearly represent urbanization in its proper sense, in situ urbanization is more a model of rural development, in which the standard of living of rural people is raised to similar levels as

3 See Islam and Iversen (2018) for a recent discussion.

4 It may be noted in this context that the United Nations Statistical Commission in 2020 adopted "Degree of Urbanization" as a new method to define rural/urban. It identifies three types of settlements: cities, towns and semi-dense areas, and rural areas, based on population size and density.

5 Sometimes this conversion takes place in areas that are close to pre-existing cities, so that the processes of classical and greenfield urbanization may overlap. In other cases, however, they may be distinct.

Table I.3
Different agriculture models distinguished by technology, scale and ownership pattern

Size of land holding	Institutional setting and farm unit					
	Industrial			Transition technology-based	Pre-industrial	
	Corporate	Family farm	Cooperative	Family farm	Family farm	Cooperative
Large-scale	Land-rich, industrialized countries; Land-rich developing countries with foreign-owned plantations	Land-rich, industrialized countries	Former socialist countries in Eastern Europe			China, Viet Nam, and other socialist, developing countries when they were at their early industrialization stages
Small- and medium-scale		Industrialized countries with limited land		Developing countries, yet to be fully industrialized and with limited land	Developing countries at initial levels of industrialization and that use mainly pre-industrial agriculture technology	

Source: UN DESA.

that experienced in urban areas, without changing the rural character of the area where they live.

Two drivers of rural-urban spatial combination

In terms of the driving forces that determine rural-urban spatial combination, two different, nearly opposite types may be distinguished, namely *spontaneous* and *guided*. Under the former, spontaneous economic forces are allowed to determine the rural-urban boundaries. Under the latter, administrative decisions are used to guide the formation of these boundaries.

The spontaneous model is more prevalent in land-rich countries, where easy availability of land allows the authorities to be less concerned about rural-urban boundaries. The philosophy of governments also plays a role, with those either committed to the laissez-faire principle or less concerned about the environmental impact of economic processes often being more favourable to the spontaneous model. By contrast, countries endowed with a limited amount of land and more concerned about the environmental impact of economic processes tend more towards the guided model. Administrative cities present a special situation. These cities are built mainly to perform administrative functions and do not rely on the concentration of commerce and industry. They represent a special example of the guided model and may be seen in land-rich countries too.

Both the classical and greenfield urbanization models can be the outcome of either spontaneous or guided processes. In most cases, these two driving forces combine, although one may be more influential than the other. Spontaneous processes may lead to the conversion of rural land into an urban area through agglomeration; they may also take the form of further

growth of an existing urban area.[6] Similarly, the guiding force of administrative decisions may promote urbanization of an area. In some cases, they may also discourage or even prevent urbanization. Administrative decisions may also take the form of restrictions on the mobility and resettlement of people, directly and intentionally altering the economic character of an area.[7] The in situ urbanization model generally depends more on guidance.

Rural development models are inextricably related to the models of urbanization. How to draw the boundaries and optimally combine the rural and urban characteristics of land, and how to determine what role the spontaneous and guided processes can play in achieving this outcome, are important challenges in formulating a rural development strategy conducive to sustainable development. The choice of the model of rural-urban spatial combination therefore has a direct bearing on growth, industry and infrastructure; rural-urban inequality; poverty and hunger; health and education; and water, land-use, energy and sanitation.

Models of agricultural development

Another important question of rural development strategy concerns determination of the agricultural model to promote. Agriculture has been and remains the main economic activity of rural areas, and the inherent reason for their rural characteristic. It is therefore important to take note of the different models of agriculture that have emerged over time.

Agriculture has three interrelated sides, namely resources (e.g., land and labour availability); technology; and institutions (e.g., ownership and management). Based on variations along these three dimensions, different models of agriculture can be distinguished as follows: (i) large-scale, industrial, corporate model; (ii) large-scale, industrial, family farm model; (iii) small- or medium-scale, industrial, family farm model; (iv) small-scale, transition technology-based, family farm model; (v) small-scale, pre-industrial, family farm model; (vi) large-scale, industrial, cooperative model; and (vii) large-scale, pre-industrial, cooperative model (table I.3).[8] The classification of agricultural models presented in table I.3 is illustrative, and the different models listed often intersect to create hybrid models. Also, different models generally co-exist in a particular country.

Apart from its effect on the socioeconomic outcomes of rural development, the choice of agricultural model has direct bearing on life on land and under water; climate change; and sustainability of communities. Different models of agriculture have different strengths and weaknesses regarding these various issues, and a country may decide to promote one or the other depending on the specifics of its situation. The issue of which agricultural model to promote is

6 However, the spontaneous model may lead to de-urbanization too. Departure of concentrated economic activities can lead to a decline in the population density of an area, undermining its urban character. For example, globalization, accompanied by off-shoring of labour-intensive production operations, led to urban decay and hollowing out of towns and cities in many advanced countries. A more benign process of decline in urban density was seen in the form of suburbanization, which, in turn, took two forms, namely (i) shift in residence only and (ii) shift in both residence and workplace. Under the former, people moved to places outside the cities in order to enjoy the more expansive living conditions of rural areas while commuting to their workplaces that remained within the cities. Under the latter, even the workplaces moved to outside the city perimeters, along with the workers. In both cases, the suburbanization was facilitated by construction of highways, expansion of car ownership, etc.

7 The *hukou* (household registration) system of China is an example, under which rural people are not free to migrate and take up residences in cities.

8 Broadly speaking, models (i) and (ii) preponderate in land-rich, industrialized countries, such as Australia, Canada and the United States. Modified versions of these models are also prevalent in some land-rich developing countries. Modified versions of model (i) sometimes take the form of foreign-owned plantations in developing countries. Model (iii) preponderates in industrialized countries where land availability is limited, as is the case in many European countries as well as Japan. Model (iv) is prevalent in developing countries, which are yet to be fully industrialized and where land availability is limited. Model (v) is prevalent in countries that are at initial levels of industrialization and where the technology of agriculture still remains largely pre-industrial, depending heavily on the muscle power of humans and animals. Model (vi) prevailed in the former Soviet Union and other former socialist countries of Eastern Europe (except Poland). With the fall of the socialist regimes in these countries, this model is now in transition, retaining its original characteristics in some cases, while transitioning to other models in other places. Similarly, model (vii) was prevalent in China, Viet Nam, and other socialist countries in the developing world and is now undergoing transformation into mostly model (iv).

another nexus issue of rural development, as it can influence the role of this development in achieving a host of SDGs.

Rural development in the age of COVID-19

The experience of COVID-19 is, as noted earlier, one of the reasons why a reconsideration of rural development strategies is necessary. The COVID-19 pandemic has brought significant changes to the economic, social and environmental activities, complicating further the linkages between rural development and the achievement of the SDGs. In the immediate term, the pandemic has imposed unprecedented restrictions on people's movements, with implications for rural migrant workers and for remittances sent back to rural areas. In the long run, COVID-19 could reverse some of the rural-to-urban migration, as the lockdown measures worldwide have, in effect, introduced a large-scale experiment that demonstrated the feasibility of remote work. For many, it presents the possibility to live in rural areas while still gaining access to employment opportunities that are traditionally confined to cities. COVID-19 also disrupts food production and the global value chain, thereby posing downside risk to agricultural productivity and injecting volatility into agricultural prices. On the other hand, the pandemic has played a role in accelerating digitalization and technology adoption in many segments of the agricultural value chains, which could have positive impact in the long run.

Also, the distributional consequences of COVID-19 in the context of rural development and the rural-urban divide cannot be ignored. While urban populations so far appear to suffer greater employment and income loss, COVID-19 compounds the already vulnerable position of the rural poor by affecting livelihoods, limiting mobility and reducing food security. The shift to remote learning amid lockdowns is also shown to have more detrimental effects on rural students as many of them have limited access to necessary digital technologies.

Environmentally, there are concerns that the pandemic has led to greater depletion and degradation of forests and associated biodiversity loss. These losses are due, in some cases, to an increase in illegal logging, poaching, charcoal production and land-use changes—an increase resulting from reduced monitoring by public sector agencies and to farmers' need to make up for loss of income caused by COVID-19. Such developments have at least partially offset the temporary, positive environmental benefits of COVID-19 in the form of lower greenhouse gas emissions, cleaner coastlines, reduced crowds in ecotourism sites—all of which lead to a regeneration of nature.

Clearly, COVID-19 has had multidimensional impact on rural populations and on the rural-urban divide. It has triggered many processes (such as the possibility of remote work) that may unfold on a greater scale in the future. As noted earlier, it has also been observed that current rural and agricultural development strategies that led to deforestation and loss of wilderness contributed to the emergence of zoonotic diseases, including COVID-19. Thus, from the perspective of both its impact and origin, COVID-19 has made a reconsideration of rural development not only urgent but also inescapable.

Road map

The *World Social Report 2021* aims at examining a wide range of connections between rural development and the SDGs. Given the interrelated nature of the SDGs themselves, organizing the discussion by Goal is not efficient. The report therefore adopts the three dimensions of sustainable development as its organizing principle and divides the chapters accordingly: economic, social and environmental aspects of rural development. Although these three dimensions are also interrelated, it is relatively more manageable to consider interconnections in this three-dimensional framework, which is also the generally accepted framework for the discussion of sustainable development. The reader is however encouraged to read and consider the chapters as parts of a single, overarching story. A concluding chapter synthesizes the conclusions and policy recommendations that emerge from the three main chapters.

The following provides a brief road map of the main content of the chapters.

Rural development for inclusive growth and a balanced settlement of the population

Chapter II focuses on the economic dimension of rural development, paying particular attention to issues of growth, investment, productivity, employment, expansion of non-farm activities, and the optimal rural-urban spatial combination. The primary focus of the chapter is on SDG 8 and SDG 9, and it views rural development through the prism of overall structural transformation. It notes the classical pattern of structural change that has dominated in the past and the possibilities of various non-classical variants of the structural change paradigm created by the new stage of globalization, which began in the 1980s. The chapter considers the role of agricultural productivity growth as a precondition for rural development and draws attention to the fact that, under the current trajectory, it may not be possible to achieve SDG target 2.3—to double agricultural productivity and incomes of small farmers—by 2030.

The chapter emphasizes the necessity for agricultural productivity growth to be translated into expansion of productive non-farm activities and employment in order to contribute effectively to successful rural transformation. It observes that the lack of successful rural transformation in many countries, including some in sub-Saharan Africa, may be due to a failure to achieve such expansion. The chapter discusses several causes for slow agricultural productivity growth in many countries, including the lack of investment and access to financing.

In considering the issue of rural-urban spatial combination, the chapter examines the option of in situ urbanization. It presents three variants of in situ urbanization based on the experiences of China, Japan and Sri Lanka. The chapter explains the uniqueness of these variants, each of which arises from the specific history and local physical and institutional settings of the three countries.

The chapter pays particular attention to the role of new technologies in bringing about the desired rural transformation. In particular, it examines their role in boosting agricultural productivity; helping to match rural producers with consumers in urban centres and around the world through e-commerce; easing of access to funds through fintech innovations; and expanding non-farm opportunities and employment. Overall, the chapter shows that the current speed of rural development is not sufficient to meet the economic growth and employment-related SDGs by 2030, and that a major change in the direction of rural development strategy is needed. It also charts out this new direction.

Poverty, inequality and rural development

Chapter III looks into the relationship between rural development and the SDGs related to poverty (SDG 1) and inequality (SDG 5 and SDG 10). Over the last decades, the developing world has witnessed a faster reduction of income poverty in rural than in urban areas. However, there has been little success in lifting the living standards of the poorest. People living in the most extreme forms of poverty—often in remote, marginal areas—have been left behind. Similarly, rural-urban disparities in opportunities are declining, although within-rural inequality in opportunities remains high in many countries.

The chapter notes that declining rural poverty has not always led to reductions in rural inequalities or in rural-urban income disparities. The same forces that drive reductions in rural poverty can in fact exacerbate inequality. It also warns that, left unaddressed, persistent and growing rural inequalities can undermine continued poverty declines. In other words, eradicating rural poverty will require addressing inequality—in incomes, assets and opportunities—both within rural areas and between rural and urban areas; it will also entail reaching the poorest. The chapter further notes that countries that have succeeded in reducing both rural poverty and inequality have invested in infrastructure and public services. They have promoted inclu-

sive agricultural growth, access to land, and expanded social protection in rural areas.

Rural development within planetary boundaries

Chapter IV examines the environmental dimension of rural development, with particular focus on SDG 6 (water and sanitation), SDG 7 (energy for all), SDG 13 (climate change), SDG 14 (life below water) and SDG 15 (life on land). The chapter has two main objectives: ***first***, to examine the impact of the current patterns of rural development on land, water, air and biodiversity in general, and how this is affecting the achievement of the SDGs, and, ***second***, to suggest ways in which rural development can be made more conducive to the protection of the health of the planet. It highlights that the rapid growth that has taken place in agriculture, industry, infrastructure and settlement in rural areas in past decades has resulted in major depletion, degradation and pollution of the environment and natural resources. In particular, the chapter calls for more effective use and management of water and land resources because of their impact on the achievement of almost all of the SDGs. The chapter also presents a baseline and an optimistic scenario in three areas—depletion of water, pollution of water, and sustainable agriculture and food security—to demonstrate that economic development in rural areas can be made more sustainable, and the SDGs can indeed be achieved by 2030, with the adoption of the right policies, management practices and technologies.

Policy recommendations

The concluding chapter synthesizes the conclusions and policy recommendations offered by the three preceding chapters. It first notes broader issues such as the necessity of (i) assigning an active and preceding role to rural development; (ii) considering in situ urbanization as a preferable model of rural development; (iii) adopting a guided approach towards determination of the optimal rural-urban spatial combination, rather than leaving it to a spontaneous process; and (iv) avoiding a "one-size-fits-all" approach regarding rural development, which is more dependent on local conditions.

Next, the chapter presents the policy recommendations that are cross-cutting in nature, impacting more than one of the three dimensions. These include the necessity of a comprehensive programme of public investment in (i) rural basic infrastructure, including improved road connection and 100 per cent electrification; (ii) development of rural human capital, ensuring adequate opportunities for education, health care and cultural development; and (iii) ensuring Internet connection, allowing rural populations equal opportunities to make use of the new technologies that depend on digital platforms. The chapter recommends that policymakers carefully choose the agricultural models most suitable in terms of country-specific conditions, and that they consider the potential role of the communal management of natural resources in promoting equity and protection of these resources. Finally, the chapter summarizes the policy recommendations that are particular for the economic, social, and environmental dimensions of rural development.

The chapter notes that it is important to also consider the political consequences of development policies. A large number of people in rural communities can be affected by policies that impact prices, subsidies, taxes, investments and the environment, among other issues. History is full of examples of policies that, however well intentioned, are not well received by a population that does not see itself as a willing martyr for larger national goals and feels threatened by changes to its livelihood. The interests of the existing population must be a high priority in any policy design. In fact, rural development starts from the proposition that the lives and livelihoods of rural populations must be improved, not sacrificed, and requires their participation and support.