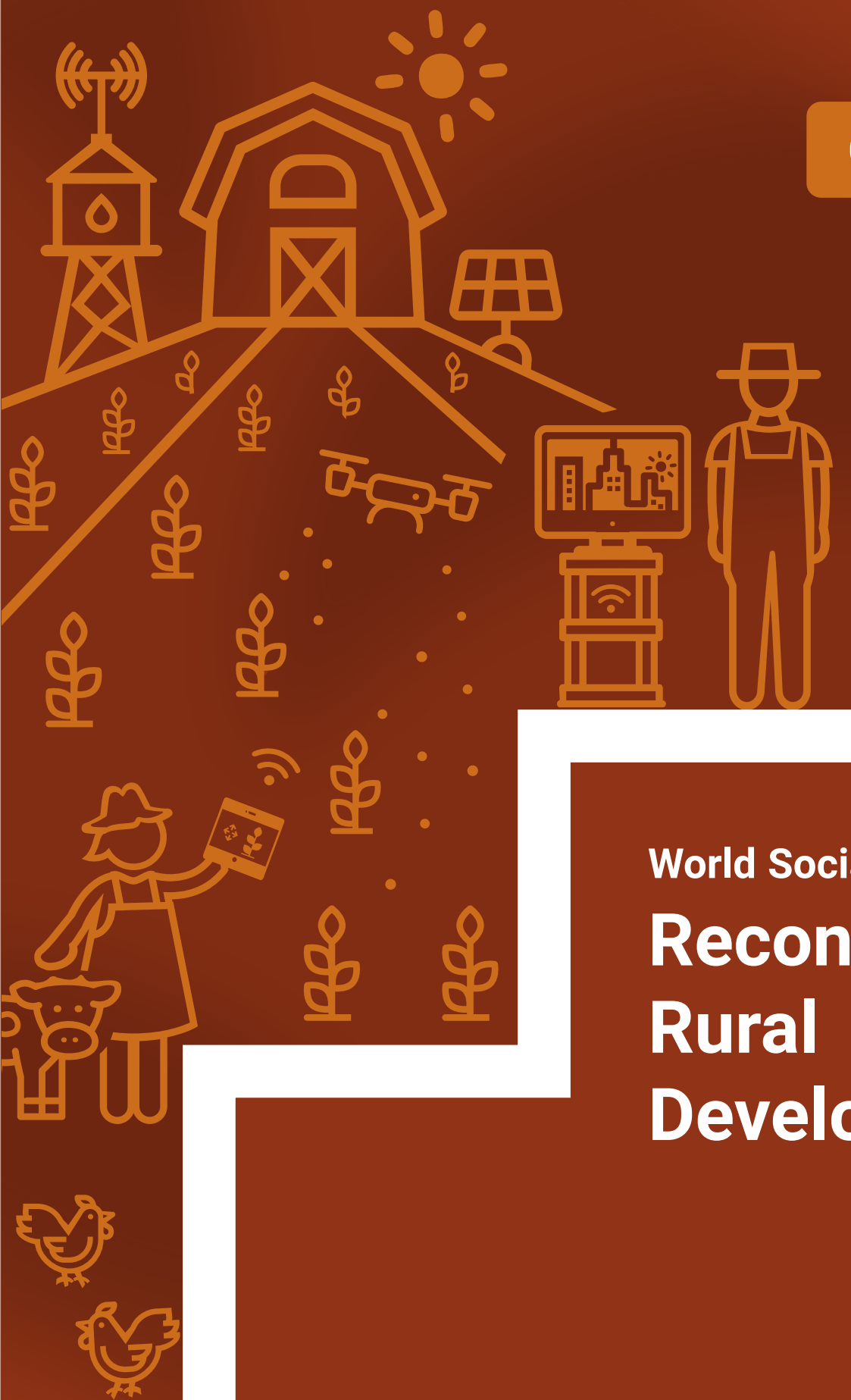


OVERVIEW



World Social Report 2021
Reconsidering
Rural
Development

The *World Social Report* is a flagship publication of the United Nations Department of Economic and Social Affairs (UN DESA).

UN DESA is a vital interface between global policies in the economic, social and environmental spheres and national action. The Department's mission is to promote and support international cooperation in the pursuit of sustainable development for all. Its work is guided by the universal and transformative 2030 Agenda for Sustainable Development, along with a set of 17 integrated Sustainable Development Goals adopted by the United Nations General Assembly. UN DESA's work addresses a range of crosscutting issues that affect peoples' lives and livelihoods, such as social policy, poverty eradication, employment, social inclusion, inequalities, population, indigenous rights, macroeconomic policy, development finance and cooperation, public sector innovation, forest policy, climate change and sustainable development.

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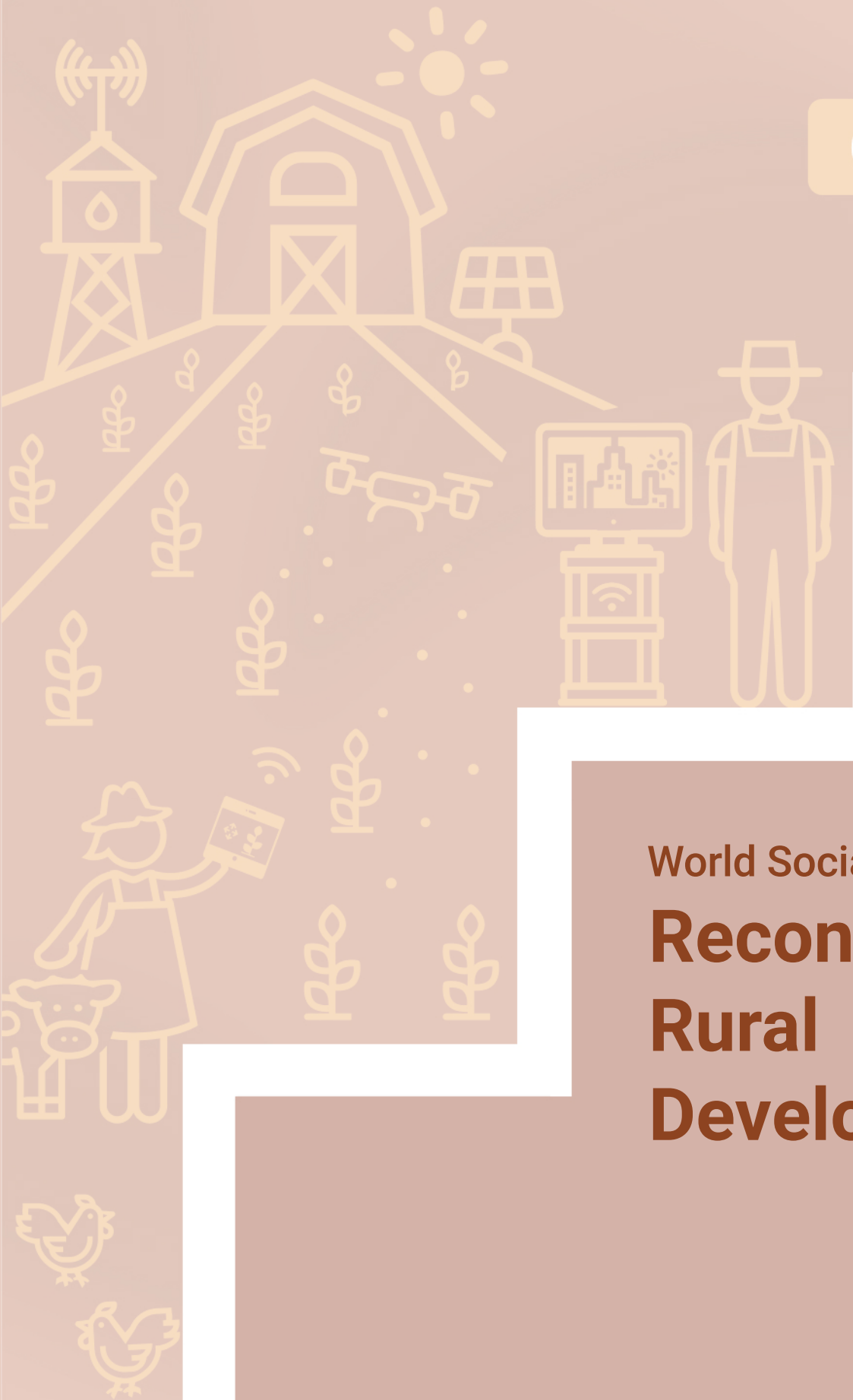
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OVERVIEW



World Social Report 2021

Reconsidering Rural Development

Overview

Rural development is essential to achieving the 2030 Agenda for Sustainable Development. It is also a task that follows from the Agenda's guiding principle—to leave no one behind. As such, rural development must now be reconsidered. Instead of a sideshow or an appendix of urban development, rural development should be pushed to the centre stage. The standard of living of the rural population can be raised to that of the urban population through a process often called “in situ urbanization,” which can also help to avoid many unwarranted consequences of unbridled rural-urban migration. Going forward, more attention may be paid to in situ urbanization as a model of rural development.

Several factors have made reconsideration of the role of rural development and its strategies urgent: First, the deep challenges of poverty and inequality persist in rural areas, which is home to four out of every five people living below the international income poverty line. Rural populations also generally have less access to education, health, and other services. These rural-urban disparities are contributing in some countries to rising rural discontent and grievances, polarization in society and unrest.

Second, the current strategies of rural development are not proving adequate to protect the health of the planet. The continued loss of forests and wilderness has been a contributing factor to climate change and is also widely held to be one of the reasons for the increased frequency of zoonotic diseases, such as COVID-19. Climate change in turn is having more adverse effects on agriculture and rural economies, thus creating a vicious cycle.

Third, on the brighter side, the advent and spread of digital and other frontier technologies are changing the fundamentals of the present rural-urban divide. Rapid technological progress is creating the possibility of ending this division—a goal cherished by many forward-looking thinkers since the nineteenth century.

Finally, recent experience has shown that, in this era of globalization, steady decline of the share of agriculture in gross domestic product (GDP), or of the

share of the rural population in the total population of a country, is not the only way in which a country can transform itself into a high-productivity country. Rather, it is possible to industrialize, even with these shares remaining high.

The goal of *World Social Report 2021: Reconsidering rural development* is to point to the directions in which rural development strategies need to be modified in view of the above factors. It offers several strategic principles, programmes of action, and sets of concrete policies that can be combined to devise effective strategies for realizing the potential of rural development in achieving the Sustainable Development Goals (SDGs).

Rural areas are home to about 43 per cent of the world's population and most of the global population living in poverty. Not only do rural populations generally have less access to education, health and other social services, the work available to them is often characterized by human rights abuses, gender inequality, poor working conditions, and the violation of indigenous land rights. Without inclusion and improvement of the well-being of rural populations as a central goal, sustainable development cannot be achieved; the general principle of leaving no one behind also warrants their inclusion. However, the rural populations need not be viewed as just passive recipients of attention. Instead, with the adoption of appropriate strategies, rural development can be a powerful force for achieving sustainable development in general, and the SDGs in particular.

It is possible to adopt two views of the role of rural areas in sustainable development. One is the *narrow* view, which focuses 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 between rural development and the SDGs.

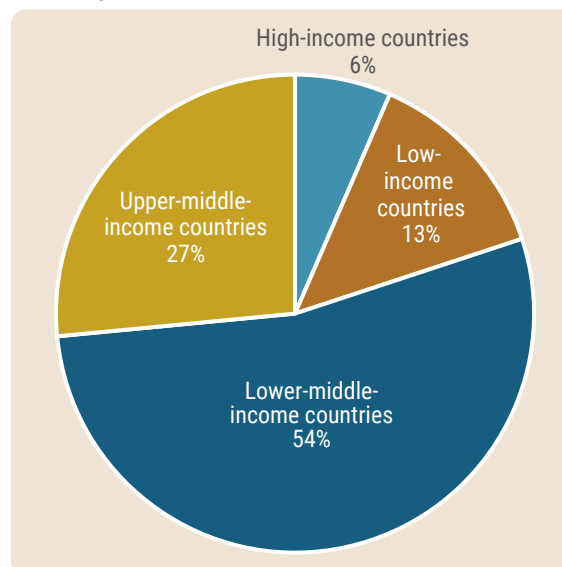
This report will both re-examine the narrow view of rural development—reviewing how existing models and strategies of rural development have not always been successful, even from this viewpoint—and expand

the discussion to the role of rural development in achieving the wider set of SDGs. In doing the latter, the report intends to pay particular attention to the interaction of rural development with SDG 6 (clean water and sanitation), SDG 8 (economic growth and decent work), SDG 9 (infrastructure), SDG 11 (sustainable communities), SDG 13 (climate change), SDG 14 (life below water) and SDG 15 (life on land). The interlinkages of all these goals suggest that potential synergies exist between rural development and sustainable development efforts in many other directions. Given the limitation of this report's scope, attention will be particularly focused on those aspects of the connections that have a potential nexus role, being able to exert influence in multiple directions.

An overview of the rural world

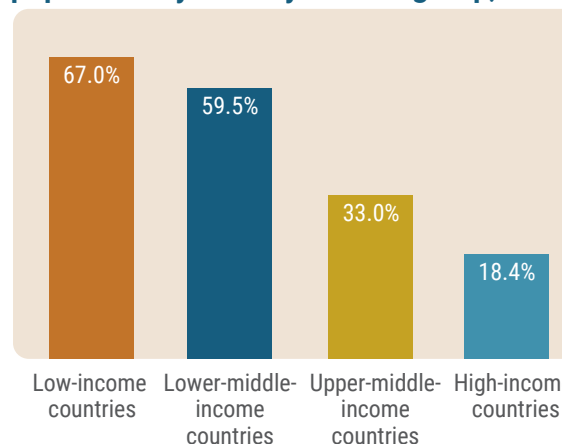
The share of rural population in national population differs greatly from country to country, so does the depth of the rural development challenge. About 90 per cent of the world's rural population lives in countries where the rural population constitutes at least 30 per cent of the national population. Also, about 70 per cent of the world's rural population lives in low-income or lower-middle-income countries (figure 0.1), and rural population comprises about 60 and 67 per cent of the population in lower-middle-income and low-income countries, respectively (figure 0.2). It is therefore clear that the issue of rural development is central for most of the low-income and lower-middle-income countries. Even in high-income countries, the rural population comprises about one fifth of the total population, making rural development important for these countries too. More importantly, rural areas are critical to the ecology and environment of a country; consequently, the importance of rural development cannot be gauged only by the share 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 what may appear from the shares of rural population in total population of these countries.

Figure 0.1
Share of world's rural population by country income group, 2020



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

Figure 0.2
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).

The extent of the rural development challenge also differs across countries. Although there are some countries where the per capita income of the rural population is higher than the national per capita income, in most countries, the former is much lower than the latter. In fact, about 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. About one fifth of the rural population lives in countries where the former is only about 57 per cent of the latter.

Even the socioeconomic performance of rural development strategies cannot be evaluated only on the basis of income. A broader set of socioeconomic indicators, together with environmental dimensions, must be considered. Well-being of the rural population depends 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 a rural development strategy generates high income that is concentrated in the hands of a few and at high environmental cost in the form of depletion and degradation of natural resources.

The question is how rural development can be made compatible with sustainable development and the achievement of the SDGs. Answering this question requires first taking note of the different perspectives that have emerged from different historical experiences of countries and how these perspectives have influenced rural development strategies.

Perspectives on rural development

Experiences of rural development have differed in different parts of the world and at different periods in time. Correspondingly, the theories of rural development also differ. It is therefore not always clear which theoretical perspective is more useful for a particular country or region at a given period in time. Moreover, the situation keeps changing with each passing year. In particular, the pace of technological innovation has accelerated, and many changes are occurring at breathtaking speed. Technological changes and globalization are reinforcing each other in a manner that changes ground conditions rapidly. Strategies of rural development have to be thought of 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 indus-

trial revolution. However, the post-colonial reality of many developing countries—saddled with large populations facing widespread unemployment and underemployment—gave rise to theories of development in the early 1950s that proceeded from the assumption of lower labour productivity in rural areas (agriculture), as compared with that in urban areas (industry), and viewed transfer of (surplus) labour from the former to the latter as the main engine of growth and development. This view was captured well through the Lewis model of development, put forward in 1954.¹ In this view of development, rural areas were assigned a *residual* role—that is, the role of supplying (surplus) labour to the urban areas. Over time, rural labour productivity increased under this scenario too, 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 preceding—outcome, and the role of rural areas in development was largely *passive*, not *active*.

Around 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. The radical land redistributions carried out in these countries following World War II and the Chinese Revolution in 1949 were an important factor for this agricultural growth. The experience of these newly industrialized countries again lent support to the preceding role of rural development in a country's overall development.

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 the use of chemical fertilizers and pesticides. The experience of the Green Revolution also showed that a rural labour productivity increase does not always have to be a residual process; instead, it can be an independent—if not preceding—process as well.

¹ This view was most famously put forward by the Nobel Laureate economist Arthur Lewis through his celebrated article, "Economic Development with Unlimited Supplies of Labor" (Lewis, 1954). For a discussion of the Lewis model, see Islam and Yokota (2008).

Theories of rural development are therefore as diverse as the actual experiences of rural development have been, and it is important to take note of these experiences in order to develop a proper understanding of how to move forward in making rural development a force for sustainable development. While the classical pattern of structural change (with the share of agriculture steadily declining) has been the dominant pattern in the past, increased globalization and sweeping technological changes have opened up new possibilities for industrialization and overall transformation of the economy, even with relatively high shares of agriculture in GDP and of rural population in the total population.² The question is what kind of strategies and policies can allow countries to utilize these new possibilities.

Models and drivers of rural-urban spatial combination

An important strategic question of rural development concerns achieving optimal rural-urban spatial combination, which remains a significant challenge.

Problematic nature of the 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. The most widely used criterion is the density of population. However, what is considered to be dense for one country may be viewed as sparse in another. 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 regarded as urban. A closer observation reveals that the economic criterion actually underpins the population density criterion. Inherently, areas dominated by agriculture must be sparsely populated, given the amount of land (open space) required by this activity. By contrast, the processes of commerce and industry require many people working in close proximity; areas dominated by them, therefore, have high population densities and are thus classified as urban.

² See Islam and Iversen (2018) for a recent discussion.

There was a time when cities were intentionally separated from surrounding rural areas by the erection of walls. These walls had the dual purpose of defence (against outside predators) and the 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 remains.

Models and drivers of urbanization

From the viewpoint of the content of the process, two models of urbanization can be distinguished, namely (i) *classical* and (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. The greenfield model refers to the growth of new cities through the conversion of previously rural areas. In some cases, these are rural areas lying on the outskirts of previously existing cities and towns, so that their conversion—first into peri-urban and then into fully urban areas—is linked with the classical urbanization process. However, in other cases, these areas are far from pre-existing cities and towns and represent a more authentic version of greenfield urbanization.

Both the classical and greenfield urbanizations can be the outcome of either spontaneous or guided processes. Under the former, spontaneous economic forces drive the determination of the rural-urban boundaries. By contrast, under the latter, administrative decisions are used to guide the formation of these boundaries. The spontaneous process is more prevalent in land-rich countries, where easy availability of land allows the authorities to be less concerned about the rural-urban boundaries. The philosophy of Governments also plays a role, with those committed to the *laissez-faire* principle (or less concerned about the environmental impact of the economic processes) being more favourable to the spontaneous model. By contrast, countries with a limited amount of land and

greater concern about the environmental impact of the 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 concentrations of commerce and industry. They represent a special example of the guided model and may be seen in land-rich countries too.

In most cases, these two driving forces—spontaneous and guided—combine, although one may be more important than the other. The spontaneous force may lead to the conversion of a rural area into an urban area through the process of agglomeration; and through the same process, it may lead to further growth of an existing urban area.³ Similarly, under the guided model, administrative decisions may promote urbanization of an area, while in other cases they may discourage or even prevent urbanization. The administrative decisions may also take the form of restrictions on the mobility and resettlement of people, instead of altering the economic character of an area directly.⁴

In situ urbanization as a model of rural development

In contrast to the classical and greenfield models of urbanization, in situ urbanization—despite the name—is actually a model of rural development. It refers to the improvement of the standard of living of the rural population to the urban level, without getting converted

³ However, the spontaneous model may lead to de-urbanization too. The departure of concentrated economic activities can lead to a decline in the population density of an area, undermining its characterization as urban. 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 the construction of highways, expansion of car ownership, etc.

⁴ 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.

into urban areas (in the sense of the size and density of population).

Since the early nineteenth century, progressive social thinkers have dreamed of ending the rural-urban division and equalizing the standard of living between the urban and rural areas. In situ urbanization embodies that dream. The idea of in situ urbanization can also be viewed as a reaction to the undesirable nature that urbanization has taken on in many countries in recent decades: millions of rural people flocked to cities in search of a better life, but ended up in unhygienic slums and in wretched living conditions. Also, in many countries, ills of urbanization have led to the growth of urban sprawl and suburbia, encroaching the rural landscape and societies in undesirable ways. The goal of in situ urbanization is to ensure an urban standard of living for people in rural areas so that they do not have to migrate to cities. This model of rural-urban spatial combination generally depends more on guidance.

Looking across the world, several notable experiments of in situ urbanization can already be seen, and their experiences can provide important lessons about how to implement the idea of in situ urbanization.

Different variants of in situ urbanization

Japan

Japan was an early example of transforming underdeveloped rural areas into modern communities with high income levels and improved well-being. This transformation can be attributed to land reforms, the establishment of agricultural cooperatives, price subsidies to farmers and other measures that improved agricultural productivity. There was a conscious effort to avoid large rural-urban income disparity. Eventually, many rural areas located in the outskirts of large cities became parts of the metropolitan areas, producing non-rice agricultural products (such as flowers, fruits and vegetables), providing residential areas, and hosting manufacturing and service activities to the old and new residents.

China

The in situ urbanization process in China has involved setting up of township and village enterprises, which

led to the creation of non-farm employment for more than 130 million people by 1997 and accounted for about 30 per cent of China's GDP and about one third of the country's export by the end of the twentieth century (Harvie, 1999; Islam 2009). In situ urbanization in China has also been driven by improvement in infrastructures, measures to attract foreign investment, and policies and institutions that empower local governments while disincentivizing rural residents from leaving for the cities.

Sri Lanka

Sri Lanka offers a model of in situ urbanization that differs from the Chinese and Japanese experiences in many respects. Defying the general notion that urbanization is a precondition or concomitant feature of growth and development, Sri Lanka achieved the upper-middle-income status with an urbanization rate of less than 20 per cent and little rural-urban disparity—all the while without experiencing significant rural-urban migration. Sri Lanka achieved this feat through its "Rural First" principle, under which preference was given to the demands of rural people. Accordingly, the country guaranteed them free education and medical services of the same quality available to its urban population. This equality was achieved through a hub-and-spoke system, in which small cities and towns of Sri Lanka's provinces served as hubs of education and health-care services that all the people of the adjoining rural areas could utilize. For this purpose, the Government set up enough schools and hospitals in these hubs, built a dense road network, and ensured a subsidized, efficient bus transportation system that the rural people could use for traveling to the hubs. Rural people could also make use of the transportation system for commuting to jobs that they took in the cities and towns. The small physical size of the country, implying short commuting distances, facilitated the success of the hub-and-spoke system. Sri Lanka could thereby avoid both classical and greenfield urbanization processes to a significant degree.

Although successful in many ways and for considerable periods of time, the in situ urbanization model faced problems too. Japan, for example, now faces challenges associated with the sustainability of

trade protective measures for rice, and a shrinking and ageing rural population, which is causing many rural communities to become non-viable. In China, despite the numerous measures and institutions that aim to retain population in rural areas, there has been massive internal migration to the cities. The inadequate social protection system—which includes health care and education—and rural-urban differences in standard of living that remain continue to drive people (particularly youth) away from rural areas. In Sri Lanka, the worry is whether, after serving the country well for many decades, the in situ urbanization model is leading the country into what is called the middle-income trap (MIT). According to some observers, avoiding the MIT and moving forward to the high-income stage requires a more innovative economy, with more horizontal and vertical mobility.⁵ From this perspective, the current in situ urbanization model can become a hindrance.

Despite the limitations noted above, the in situ urbanization model offers an attractive way of improving the quality of life of rural people and avoiding urban squalor and misery. China, Japan and Sri Lanka offer good examples of this model, showing how the income of rural people can be raised to that of urban people; how non-farm, industrial employment opportunities can be created in rural areas; and how the urban-rural disparity in education, health, and other areas can be eliminated or narrowed. Lessons from these examples can therefore be valuable ingredients for future strategies of rural development in many countries.

In situ urbanization as a future model of rural development

Two recent global processes are making the idea and practice of in situ urbanization more plausible. The first is globalization, which is creating the possibility of non-classical patterns of structural change. For a long time, the idea of structural change was based on basically the closed-economy assumption and implied steady decline in the share of agriculture in the GDP and concomitantly of the share of rural population in the total population of a country. However, in a globalized economy, it is possible for some countries

⁵ See Islam (2015) for a discussion of these issues.

to industrialize and reach higher aggregate levels of productivity even with higher shares of agriculture and rural population.⁶

Second, the new digital technologies are undercutting the very technological rationale of the rural-urban divide. As the COVID-19 experience has shown, many economic activities—that were previously thought to be urban—can now be performed from rural locations too. The progress of 3D printing technology is converting manufacturing into a boutique operation that can be located in rural areas. Also, the Internet has made it possible for people in rural locations to have the same access to information, services, and entertainment as available to the people in urban areas.

These fundamental changes are creating the material basis for ending the rural-urban divide and for realizing the dream of in situ urbanization in a much wider scale. The time for in situ urbanization may have finally come, and it is the responsibility of the policy makers to make the best use of this possibility for improving the life and livelihood of the rural people and for the overall development of their countries.

Models of agriculture

Another strategic question of rural development concerns the choice of the agricultural model. Agriculture has been and remains the main economic activity of rural areas, and the inherent reason for rural characteristics of an area. It is therefore important to take note of the different models of agriculture that have emerged over time. Agriculture itself has three interrelated dimensions, namely (i) resources (e.g., land and labour availability); (ii) technology; and (iii) institutions (e.g., ownership of the land). Based on the combination of various possibilities along these dimensions, different models of agriculture can be distinguished (table O.1).

The different agricultural models shown in table O.1 have their respective merits and demerits regarding various socioeconomic and environmental objectives of sustainable development. The appropriateness of one or the other or a combination of several models depends crucially on the resource, technology and institutions of a particular country. Making the correct choice in this regard is central for the success of the rural development strategy.

Table O.1

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.

⁶ See Islam and Iversen (2018) for details.

To ascertain the suitability of different models of spatial combination of rural and urban areas and different models of agriculture, it is necessary to review the socioeconomic and environmental performance of the current strategies and patterns of rural development.

Investment and productivity challenges of rural development

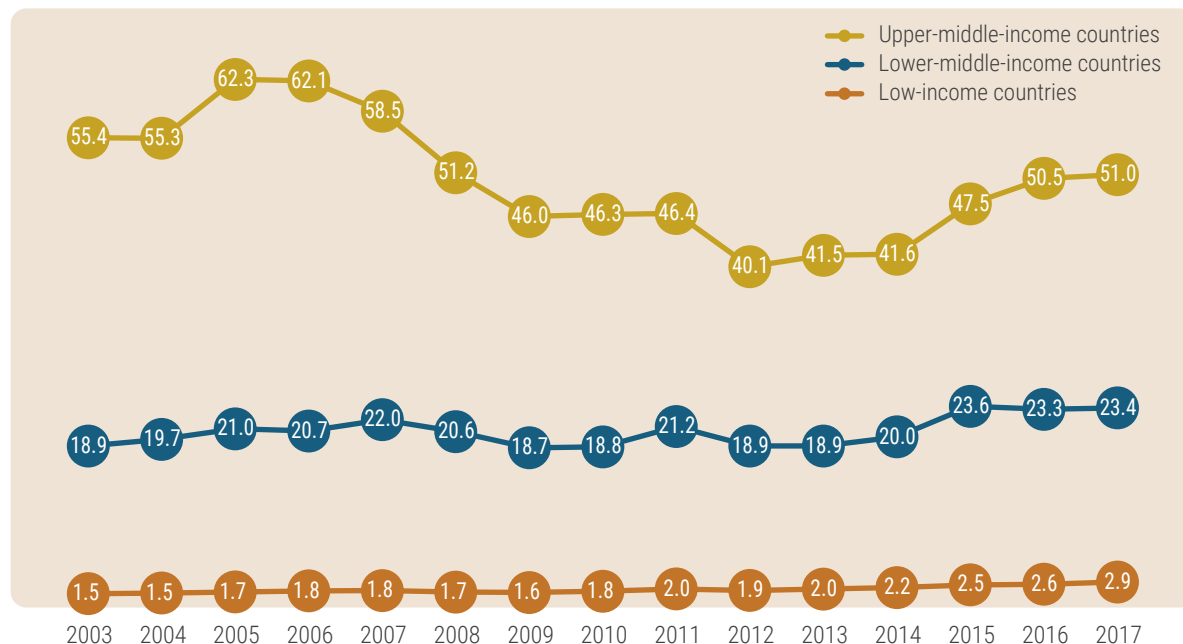
The central challenge of rural transformation is raising agricultural productivity. The tepid growth of agricultural productivity and the persistent productivity gap between developed and developing countries in the past two decades is therefore worrying. Without an acceleration in agricultural labour productivity growth from the levels they experienced since the turn of the century, it is estimated that countries that are home to at least 501 million agricultural workers are unlikely to reach SDG 2.3—doubling the agricultural productivity and incomes of small-scale food producers—by 2030.

Chronic underinvestment in the agricultural sector is a key factor behind the subpar agricultural productivity growth in many developing countries. This is reflected in the extremely low values of net capital stock per agricultural worker in low-income countries as compared to those in middle- and high-income countries (figure 0.3). Tepid investment in agriculture reflects low expected return, which is in turn driven by a combination of factors: volatile agricultural prices that have been on a decade-long decline; lack of access to agricultural knowledge and technology; inadequate infrastructure; insecure access to land; gender gap in access to productive resources; climate change; and environmental degradation. De-prioritization of the agricultural sector by urban-minded Governments and the ongoing COVID-19-induced disruptions to the agricultural global value chain also add to the downward pressure on agricultural productivity.

Improvement in agricultural productivity does not necessarily lead to broad-based and immediate poverty reduction, especially in countries where poverty is more prevalent among landless rural households that engage mainly in non-farm activities. Creating and

Figure 0.3

Net capital stock per worker in agriculture sector, relative to high-income countries, 2003–2017 (high-income countries' median=100)



Source: UN DESA calculation, based on data from FAOSTAT (2020) and Dieppe (2020).

Note: Median value among countries is used for each income group. Net capital stock is calculated by cumulating historical series on physical investment flows and deducting the part of assets that is depreciated in each year.

maintaining a vibrant non-farm economy in rural areas is therefore crucial for lifting, and keeping, many rural residents out of poverty. A robust rural non-farm economy also presents a significant potential for generating jobs for the growing young labour force found in many developing countries.

Expansion of the rural non-farm economy is, however, far from an inevitable consequence of higher agricultural productivity. Continuous improvement in human capital, infrastructure and governance is essential in enabling both the reallocation of resources to rural non-farm sectors and productivity growth in these sectors. Also, some frontier technologies hold promise for mitigating some of the disadvantages that rural firms face, and their extensive adoption can pave the way for a more vibrant rural non-farm economy.

Poverty and inequality reduction under current rural development strategies

Rural development and poverty reduction

Rural poverty is declining rapidly, but the poorest are still left behind. Also, the performance of rural development regarding poverty reduction varies widely.⁷ Much like national-level poverty rates, rural poverty rates are the highest in sub-Saharan Africa, where more than 50 per cent of the rural population live in extreme poverty in numerous countries.

Poverty remains a primarily rural challenge. About 18 per cent of rural residents live in extreme poverty, compared to 5.3 per cent of urban residents. Because of this large gap and the large size of rural populations in many developing countries, 80 per cent of people in poverty live in rural areas. The situation of the rural poor is made worse by deficiencies in access to public services, infrastructure and social protection. The COVID-19 pandemic has compounded their already vulnerable position by reducing incomes, limiting mobility and reducing food security.

⁷ Based on the rural extreme poverty headcount at \$1.90 a day (2011 purchasing power parity) estimates, available from the World Bank's Global Monitoring Database (GMD).

Despite persistent rural disadvantages, poverty is declining faster in rural than in urban areas. A study of 19 countries with data shows that the rate of rural poverty reduction has been higher than that of urban poverty reduction in all countries but one. However, reaching the very poorest remains challenging. Over the past 30 years, developing regions have made little progress in raising the level of consumption of the poorest. In other words, the poorest have been left behind.

Rural development and inequalities

While the rate of poverty is higher in rural than in urban areas, income inequality is often lower in the former. This is the case in 44 of the 56 countries for which rural and urban income inequality estimates (based on the Gini coefficient) are available. Despite differences in inequality *levels*, the *trends* are similar in urban and rural areas in qualitative terms—that is, inequality has either increased or decreased in both rural and urban areas of these countries.

National development patterns and shared institutions link rural areas, urban areas and different sectors of the economy. Rural development is thus affected by national and regional contexts, particularly linkages between urban and rural areas. The extent of these linkages depends on the proximity and connectivity of rural areas to urban centres, the levels of migration and remittances, and the distribution of resources, among others. These linkages foster diversification of economic activities in rural areas, which can be an important source of income for those rural poor unable to move out of poverty through agriculture alone.

Apart from income inequality, there has been some reduction in the rural-urban gap in access to basic services and opportunities. On average, progress in secondary school attendance, the reduction of stunting and access to electricity has been somewhat faster in rural than in urban areas since the 1990s. Nevertheless, even if the progress observed in these dimensions of well-being continues at the same pace, rural areas will still lag far behind urban areas by 2030.

Within rural areas, inequalities in the basic indicators of opportunity remain high and are persistent for specific groups. Wealthier rural households with a well-educated head are almost as well off as the aver-

age urban household, while rural households in the bottom wealth quintiles with an uneducated head are far worse off. For indigenous peoples and ethnic minority groups, the available evidence suggests that wealth and opportunity gaps between them and the ethnic majority are greater in rural than in urban areas. The overlay of gender with rural residence confers additional disadvantages to rural women, who face more obstacles to accessing education than rural men or women in urban areas and have lower levels of ownership and control of assets, less access to paid employment, and lower access to public services.

Reducing poverty and inequality in rural areas as complementary goals

Reductions in rural poverty have not always led to reductions in rural inequalities or in inequalities between rural and urban areas. The available data indicate that efforts to reduce rural poverty did not always occur in tandem with efforts to reduce inequality. In China, India and Indonesia, for instance, rural inequality increased or remained constant while rural poverty fell between the 2000s and the 2010s.

Regional and time trends suggest that declines in inequality are not a systematic outcome of growth and development. The same economic forces that drive falling poverty can cause a rise in inequality within rural areas and between urban and rural areas. Agricultural development, a key driver of rural poverty reduction, can exacerbate rural inequality if those who are better off reap greater benefits from agricultural growth. Differences in the ability to take advantage of growth can arise from disparities among population groups in their access to resources such as land. Inequality trends may also vary depending on the sector and nature of economic growth. Urbanization and diversification away from agriculture in developing countries, for instance, can concentrate economic returns in urban areas and wealthier households.

Rising income inequality in the midst of rural poverty reductions may not necessarily be a cause for concern, so long as the rise is temporary and stems from economic development. Over the longer term, however, persistent and growing inequality can be detrimental to growth and poverty reduction. In rural

areas with high inequality, people in poverty—who are already disadvantaged in access to resources—benefit less from subsequent growth, or even from periods of agricultural expansion. Left unaddressed, challenges faced by the rural poor in trying to escape poverty and fulfil their potential ultimately lead to constraints on rural economic growth.

Countries that have succeeded in reducing both rural poverty and inequalities have invested in infrastructure and public services. They have promoted inclusive agricultural growth, access to land and expanded social protection in rural areas. Historically, a key element to the successful reduction of poverty in rural areas has been substantial investment in basic infrastructure and public services. Sustained investments in roads, electrification, improved sanitation, safe drinking water, education, health care and the bridging of the digital divide in rural areas will be required to eradicate extreme poverty and to close rural-urban disparities. Such investments must also address inequalities in access to public infrastructure and services within rural areas to ensure that no one particular area or group of people is left behind.

Experience has shown that inclusive agricultural growth can further reduce extreme poverty. It is estimated to be two to three times as effective in reducing poverty as growth in other sectors and benefits mainly the poorest in society. The benefits of promoting agricultural development are both direct, through increased incomes and food security, and indirect, through increased investment in health and education.

However, as populations and economies grow, constraints on available land may rise. Policy choices will influence whether this increased competition for resources leads to innovation and inclusive development or to degradation, scarcity and inequalities of access and control over these resources. A fair distribution of, and secure access to, land and its natural resources is required, regardless of whether tenure is based on individual or collective rights. Moreover, it is vital to ensure rural women's equal access to land and natural resources and address discriminatory laws and practices that impede their rights in this regard.

Social protection coverage in rural areas is generally lower than in urban areas. Few social protection programmes are explicitly tailored to rural people or the specific vulnerabilities and constraints they face. There

are a number of legal, administrative and financial barriers that must be addressed in order to overcome the low coverage of social protection in rural areas. To overcome these structural barriers, legal frameworks can be adjusted and expanded; contribution schemes can be modified to account for rural employment types; participation in contributory schemes can be improved through subsidies; and the hidden costs of participation can be lowered.

Discrimination remains a persistent driver of inequality. Because of the systematic exclusion of ethnic minorities, indigenous peoples and other vulnerable social groups, the benefits of rural growth are likely to be unevenly distributed. The 2030 Agenda calls for the elimination of discriminatory laws, policies and practices to ensure equality of opportunity for all.

Environmental record of existing rural development strategies

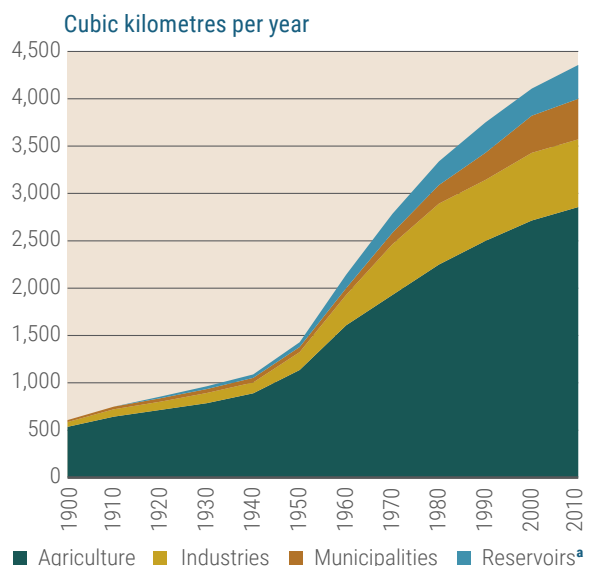
If the current rural development strategies proved deficient in reducing poverty, hunger, inequality, and rural-urban disparity in many parts of the world—such that about one third of the rural population, or approximately one billion, currently live in poverty—these strategies proved even more deficient regarding environmental protection, particularly in the rapidly industrializing countries. Agriculture, the signature economic activity in rural areas, is also the most intimately linked with and dependent on nature and the environment. Consequently, what happens to agriculture invariably has a direct and wide-ranging impact on the environment. Unfortunately, this impact has not been benign. The tremendous global increase in food production and security has come at the cost of extreme environmental damage. A primary aspect of current rural development strategies that needs to improve is the extent to which they are environment-friendly and conducive to the achievement of the planet-related SDGs.

Impact of current rural development strategy on water resources

Under the current strategies of rural development, efforts to increase agricultural output have focused on the cultivation of high-yielding varieties of different crops, requiring large amounts of chemical fertilizers, pesticides and controlled irrigation. However, the increasing demand for water for irrigation has led to the depletion and degradation of water bodies; and the increased use of chemical fertilizers and pesticides has led to chemical run-offs, causing pollution of water bodies.

Over the last century, there has been a nearly sixfold growth in the use of global freshwater resources, which is more than twice the rate of the population growth during the same time. Across the world, agriculture is by far the largest sector in terms of overall water consumption (figure 0.4) and accounts for about 70 per cent of freshwater withdrawal. This ratio is the highest in South Asia, reaching about 90 per cent. The share of industry in the freshwater withdrawal is the greatest in the developed parts of the world, although East Asia is catching up fast.

Figure 0.4
Global water withdrawals, by sector, 1900–2010



Source: UNESCO World Water Assessment Programme (2020).

a Evaporation from artificial lakes.

The freshwater resources of the Earth are limited, however. The incessant increase in withdrawal and use has therefore led to depletion and water scarcity and stress. Because of excessive impounding and withdrawal of water, many fabled rivers of the world—such as the Colorado River in the United States of America, the Murray-Darling River in Australia, and the Huang He in China—generally fail to reach the sea. More rivers are heading towards the same fate. Drying up of major rivers through extraction of water for various commercial uses is disrupting the Earth's basic hydrological cycle. In addition, it is threatening the ecological substratum on which the economy and societies of these river basins rest. The problem is getting more serious with each passing year due to the relentless increase in the demand for water.⁸

The current trajectories of freshwater withdrawal and use are therefore unsustainable. In fact, a large gap is emerging between the projected demand and the available supply. The total demand for water for agriculture, industry and municipal uses is projected to increase to about 6.03 trillion cubic metres by 2030, resulting in a water deficit of about 1.63 trillion cubic metres relative to the baseline scenario.

Impact on water bodies of manifold increase in the use of chemical inputs in agriculture

Alongside the rapid increase in the withdrawal and use of freshwater, there has been an increase in the use of chemical fertilizer and other chemical inputs. The global growth of agriculture has been driven by more intensive use of inputs such as chemical fertilizers and synthetic pesticides. The global use of chemical fertilizer increased from about 12 million tons in 1961 to about 110 million tons in 2018. Fertilizer use has increased throughout the developing regions, with the largest increase in Asia, led by China and India. This stands in strong contrast to sub-Saharan Africa, where the use of fertilizers remains low and has increased only marginally from 11 kg per hectare of cropland in 2000 to 16 kg per hectare in 2018. Developed parts of the world, where chemical fertilizers and pesticides were

first introduced, have witnessed slower growth in their use in recent decades, because, in part, their levels of use were already high. In fact, the volume of chemical fertilizer use in Europe has decreased since its peak levels of the 1980s.

Run-off from these huge volumes of chemical fertilizers and pesticides has become a major source of pollution of water bodies, often proving deadly for the freshwater fish stock. The decline in the relative importance of capture fisheries (as compared with farm fisheries) and the disappearance of varieties of indigenous fish species in many parts of the world are attributed to chemical run-off.

With time, more synthetic inputs are being used in agriculture, aggravating the pollution problem. A case in point is the growing use of plastic mulch, which has increased dramatically in many countries. Much of this plastic mulch ends up in water bodies, either in the form of fine debris or in more coarse form.

Agriculture is not the only source of depletion, degradation and pollution of water bodies. Industries set up in rural areas pollute water bodies through their effluents. To the extent that environmental regulations are either relatively weak or have lax enforcement in rural areas, the pollution of water bodies from industry in rural areas often proves to be worse than from agriculture. The expansion of industrial and service sector activities in rural areas has also led to a large increase in plastic waste, which often ends up in the water bodies, sometimes choking off the running flows.

Impact of current rural development strategies on land resources

The impact of the current rural development strategies on land resources is no less damaging. First of all, agriculture growth, in many places, has required expansion of land under cultivation, often achieved by clearing forests and encroaching on the wilderness. More than half of the habitable land is already under agriculture and this share is increasing. The use of circular and conservation practices in agriculture has so far not been widespread because of lower yields than in conventional farming, though the condition in this regard is fast changing.

⁸ See Islam (2020) for a comprehensive discussion of these issues.

Driven by the rapid growth in agriculture, some 30 per cent of the global forest cover has been lost and 20 per cent of the standing forest has been degraded between 1990 and 2015. A direct consequence of deforestation, caused by the expansion of agriculture, is the loss of biodiversity. Historically, the conversion of natural habitats to agricultural land has had the largest negative impact on biodiversity, contributing 60–70 per cent of total biodiversity loss. Moreover, the Intergovernmental Panel on Climate Change attributes about 31 per cent of global greenhouse gas emissions directly to agricultural and land-use changes, suggesting that rural land management practices have a direct impact on climate change. The current agricultural practices are also heavily driven by consumer preferences in urban areas. Unsustainable farming practices on a massive scale also exacerbate soil erosion. Meanwhile, poorly planned construction of infrastructures in rural areas has led to the irreplaceable loss of natural and cultural sites in many countries.

The experience of COVID-19 made the long-term consequences of the loss of forests and wilderness quite clear. Scientists are in agreement that the frequent occurrences in recent years of various zoonotic epidemics—such as SARS, MERS, Ebola and Chikungunya—are, to a large extent, due to the fact that loss of forests and wilderness is increasing contact between animal and human worlds, thus creating the conditions for pathogens of the animal world to transfer and transmute into deadly human viruses. Unless this loss is stopped and large portions of the Earth are reinstated as forests and wilderness, the human race may face even graver public health threats in the future.

Resetting rural development for the 21st century

Strategic principles

Achieving sustainable development, including the SDGs, by 2030 therefore requires a resetting of rural development in the coming years. The following strategic principles need to be observed for a successful reset:

I. Rural development has to be assigned an active and preceding role in overall development planning

and process and not be viewed as an appendage of urban-centred development. It is important that policymakers of countries with a large rural sector identify and learn about the beginning of the processes that put successful countries on a path to rapid industrialization and not focus just on the outcomes achieved at the end of these processes.

- II. Rural development needs to be redirected away from environmental damage to environmental protection. Most of the natural capital of a country is located in rural areas, and agriculture—which is typically the predominant economic sector in rural areas—is intimately connected with nature: it simultaneously impacts and depends on it. The sustainability and resilience of rural development therefore are intrinsically dependent on greater preservation of the environment. An important objective of sustainable rural development is to build resilience and reduce the vulnerability of rural livelihoods to climate change, pandemics, climate-related natural disasters or extreme weather events. Better protection of forests and wilderness will also help to prevent frequent occurrences of zoonotic epidemics and pandemics such as COVID-19.
- III. Rural development efforts have to be cognizant of the new potential created by the digital technologies of the fourth industrial revolution and try to make the best use of them. The new technologies are undercutting the technological rationale for the rural-urban divide. Thanks to advances in communications technologies and other technologies, such as 3D printing, economic activities that once were confined to cities can now also be easily carried out in rural areas—a transition that has been accelerated by the COVID-19 experience. Policymakers need to make sure that rural residents can adopt and use these new technologies to switch to precision agriculture and to catch-up with urban economies and populations in terms of overall productivity.
- IV. Rural development needs to make better use of in situ urbanization as a way of achieving a more balanced rural-urban spatial combination. A guided approach towards in situ urbanization is required to ensure that rural residents enjoy an income and a

standard of living similar to that of urban residents; that migrants do not end up in urban slums and squalor; and that wasteful sprawls and unjustified agricultural expansion done at the expense of forests and wilderness are avoided.

- V. Successful rural development requires careful choice of the agricultural models that are suitable for a country. Based on an understanding of national socioeconomic conditions and resource availability, incentives and regulations should be adjusted to ensure an optimal combination of agricultural models that are consistent with sustainable development objectives.
- VI. Rural development strategy has to be country-specific because of its greater dependence on the local physical and institutional conditions. In a similar vein, the pursuit of rural-urban spatial combination must also account for local conditions, such as per capita land availability, natural resource endowment, and other physical conditions.

Cross-cutting policies

In realizing the new potential of rural development, it will be important to internalize the spillovers that exist among efforts geared to particular objectives. Priority should be given to those programmes that can help achieve multiple SDGs simultaneously. These include comprehensive programmes of public investment directed at improving basic infrastructure (including roads, electricity supply, clean drinking water and hygienic facilities); human capital development (including quality education, health care, cultural facilities); public administrative services (including law and order, adjudication and justice); and broad-band Internet and other services related to information and communications technology.

Sectoral policies

At a more concrete level, countries need to adopt specific economic, social and environmental policies that promote sustainable rural development.

On promoting inclusive rural growth and balanced settlement, policies should aim to identify immediate interventions that can have short-term outcomes

that will also lead to medium- and long-term desirable changes. These actions include (i) removing barriers to investment in agrifood and non-food rural sectors, including building a robust system to finance investment; (ii) stabilizing agricultural prices, where appropriate, to create incentives for investment; (iii) calibrating global value chain participation of rural economic actors based on domestic and external conditions; and (iv) expanding the reach of new technologies into more remote rural areas. Policies for longer-term impact include high and sustained spending on rural physical and digital infrastructure, and ensuring proper labour market protections and incentives so that skilled labour will remain in rural areas.

In terms of addressing rural poverty and inequality, key policy efforts should include (i) enhancing the access of smallholder farmers to land; (ii) improving and digitizing land registration; (iii) strengthening social protection of rural labour; (iv) implementing strategies that give special attention to rural women, indigenous peoples, older persons, and young people; and (v) protecting rural populations against financial vulnerability resulting from events such as crop loss, disabilities and death of family members, through the promotion of insurance, including microinsurance.

On addressing environmental issues, policies need to be directed at (i) protecting water and land resources from depletion, degradation and pollution; (ii) promoting mixed, circular, and organic farming; (iii) protecting indigenous seed-bank and species; and (iv) creating and strengthening local government institutions that are necessary for ensuring environmental sustainability of rural development. The shift in rural development strategy must also be accompanied by changes in food consumption patterns, particularly in urban areas, including a shift in diets and a reduction in food waste.

The above strategic principles, cross-cutting programmes, and sectoral policies, together, can provide strategies for resetting rural development in the coming years. With proper resetting, rural development can be a powerful force leading countries towards achieving the 2030 Agenda for Sustainable Development.

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World Social Report 2021

An urgent reconsideration of rural development is needed for achieving the 2030 Agenda for Sustainable Development. The current strategies and patterns of rural development are failing to meet either the socioeconomic or the environmental Goals of this Agenda. Four out of every five people who face extreme poverty around the world live in rural areas. Many rural areas are witnessing severe depletion and degradation of natural resources, contributing to climate change and the recurrence of zoonotic diseases, such as COVID-19.

The *World Social Report 2021: Reconsidering Rural Development* points to the ways in which rural development can be reset to achieve sustainable development. It calls for moving rural development to the centre of attention, instead of relegating it as an appendage of urban development; for ending the rural-urban divide through the adoption of the in situ urbanization model; for ending within-rural inequality; and for achieving rural development while preserving the environment. *World Social Report 2021* shows that new digital and frontier technologies are creating opportunities for achieving these goals. What is needed is to seize these opportunities and to convert into reality the long-standing goal of eradicating the rural-urban disparity.

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