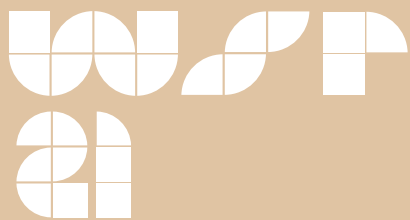


Chapter V



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Policy recommendations

The preceding chapters of *World Social Report 2021* have discussed the role of rural development in achieving the Sustainable Development Goals (SDGs) from economic, social and environmental perspectives, and offered conclusions and policy recommendations. The goal of this concluding chapter is to bring these together, taking note of the potential synergies among them and the nexus role of some of them. The policy recommendations are grouped into three parts. The first comprises strategic principles that are needed for successful rural development. The second includes programmes and policies that impact more than one dimension of sustainable development. The third covers sectoral policies that are directly relevant for a particular dimension of sustainable development. Reflecting the three dimensions of sustainable development, the sectoral policies are grouped under three categories, pertaining to (i) growth and balanced settlement; (ii) poverty and inequality; and (iii) protection of environment. Together, these principles, programmes and sectoral policies can help countries to achieve sustainable rural development that leads to the SDGs.

Elements of overall rural development strategy

Assigning an active and preceding role to rural development

In countries with large rural populations, rural development needs to be viewed as an active driver of national development. Productivity growth in agriculture releases labour and other resources to the other sectors while maintaining the required food supply for urban population growth. The experience of the early and newly industrialized countries points to a *preceding*

role of rural development, in which a productivity increase in agriculture in rural areas leads the industrial and overall development. The experience of the Green Revolution in the 1960s also shows that growth in agricultural productivity can be an autonomous process and force. It would therefore be a mistake to consider the historical evidence on structural transformation to mean that rural development is only a subsequent outcome of urban growth. Instead, policymakers need to pay attention to the beginning of the processes that led other countries to industrialize rapidly, identify the forces that led to the successful end results, and draw lessons from them. For agriculture, this means policies that (i) increase agricultural yields and productivity; (ii) provide better and more stable prices of inputs and outputs; (iii) open new domestic and international markets; (iv) expand non-farm rural economies that produce much needed goods and services; and (v) provide more and better earning opportunities.

Recognizing the key role of rural development in protection of the environment

Rural development demands more attention from policymakers, not only because of the necessity for improving the material standard of living of rural populations, but also because rural development has a key role in the protection of the environment. Most of the natural capital of a country is located in rural areas, and agriculture—generally the predominant economic activity of the rural population—is intimately connected with nature, both depending and having impact on it. Rural development therefore requires more attention from policymakers, both for achieving the socioeconomic SDGs as well as those related to the health of the planet.

More attention to the protection of forests and wilderness is also warranted in order to prevent frequent occurrences of zoonotic epidemics and pandemics, such as the world is currently experiencing with COVID-19. The possibility of such an event as this shows that rural development demands the attention of policymakers in not only developing countries but developed countries as well. Clearly, the importance of rural development in the protection of the environment does not diminish simply because the share of population living in rural areas is lower.

Recognizing the changing role of rural development in the age of the fourth industrial revolution

Policymakers need to adopt a forward-looking approach and view rural development from the perspective of the fourth industrial revolution that is now in progress. They need to be aware that the technologies of the fourth industrial revolution are changing the context of rural development fundamentally, thereby creating new opportunities. The information and communications technologies (ICT) revolution and the spread of digital technologies are rapidly undercutting the material basis for the rural-urban divide. Economic activities that once were thought to be the exclusive province of urban areas can now be easily carried out from rural locations. The COVID-19 experience, although tragic overall, has accelerated this process. Digital methods of communication have put rural and urban residents on equal ground regarding everything that can be delivered digitally, including education, health, various public services and cultural amenities. In addition, new technologies, such as 3D printing, are converting manufacturing into boutique activities that can be carried out in rural areas too.

Shrinkage of the rural population is thus no longer required for development, allowing new scope to reconsider what constitutes optimal rural-urban combination. Policymakers need to be aware of these transformational changes, and to make sure that rural

populations in their countries have the wherewithal to adopt and make use of these new technologies, and therefore do not fall behind.

Adopting in situ urbanization as the model of rural development

More attention needs to be given to the in situ urbanization as a model of rural development. Unlike the classical and greenfield urbanization models, the in situ model envisages raising the living standard of the rural population to that of the urban population without migration and loss of the essential characteristic of rural areas (namely, the low density of population). It also helps to avoid such urban ills as slums, squalor and sprawls. Specific versions of the in situ model may however differ, and countries such as China, Japan and Sri Lanka offer examples from which other countries can learn.

Guided approach to optimal spatial rural-urban combination

Models of urbanization and rural development are interdependent. Adopting the guided approach, policymakers can decide what combination of classical, greenfield and in-situ urbanization is optimal for a country and how these can be made more conducive to sustainable development, from both socioeconomic and environmental viewpoints. From the socioeconomic viewpoint, policymakers may guide the process towards a rural-urban spatial configuration in which, on the one hand, rural residents can enjoy income and standards of living similar to that of urban residents, thus feeling less compulsion for migration; on the other hand, migrants do not have to end up in urban slums and squalor. From the environmental viewpoint, policymakers may adopt the guided approach to ensure a rural-urban spatial combination that avoids wasteful urban sprawls and unjustified (when negative externalities are taken into account) expansion of agriculture at the expense of forests and wilderness.

Guided approach towards optimal combination of agricultural models

Guidance from policymakers is also necessary to determine the optimal combination of various agricultural models that is suitable for a particular country, given its resource endowments, institutions and technology. Different agricultural models have their respective strengths and weaknesses regarding economic, social and environmental dimensions of sustainable development. However, both positive and negative externalities associated with different agricultural models are not accurately reflected in the market outcomes. Consequently, market incentives do not always lead to the optimal combination of agricultural models from the viewpoint of sustainability and resilience. Policymakers can study and benefit from international experience in choosing the combination of agricultural models that is most suitable for a country, given its concrete conditions.

Country-specific nature of rural development strategies

Agriculture, the dominant economic activity of rural areas,¹ is more location specific than other types of economic activities. The type of rural-urban spatial combination—to be achieved through classical, green-field and in-situ urbanization—that is most suitable for a country depends on the per capita land availability and other physical conditions, including the natural resource endowment of a country. Similarly, the choice of agricultural model has to be country specific, depending on its unique conditions, including its history. Thus, while it will be important to learn from both historical and contemporary experiences of other countries, the rural development strategy needs to be country specific (much more so, for example, than a country's industrial strategy).

¹ Even off-farm activities significantly depend on what kind of agriculture is practiced in a country.

Cross-cutting programmes

This section summarizes some of the cross-sector programmes that pertain to more than one dimension of sustainability.

Public investment in rural basic infrastructure

One of the important policy recommendations that emerged from chapters II, III, and IV is to ensure that basic infrastructure is in place in rural areas. Basic infrastructure in turn has many components. The two most prominent are (i) reliable transportation (mostly road, rail, and water transportation) and (ii) adequate electricity supply. The public goods nature of transportation and electricity has generally meant that these deserve more public investment than what the market would generate. Although the advent of modular solar and wind power has opened up the possibility for private initiatives regarding electricity, it generally remains an area requiring public investment. Basic infrastructure also includes the provision of clean drinking water and hygienic sanitary facilities, which are also critical for human capital development. While significant advances have been made in these spheres during the past decades, rural areas will not catch up with urban areas by 2030 at the current rate of progress. Hence, a comprehensive public investment programme is needed to overcome the deficiencies that exist in rural basic infrastructure. Progress in this regard can help achieve many SDGs directly, and others indirectly through secondary effects, as discussed in chapters II, III and IV.

Public investment in human capital development in rural areas

In tandem with the public investment in physical infrastructure, a comprehensive investment programme focused on human capital development in rural areas is needed. This includes adequate provision of education, health care and cultural amenities. Positive externalities associated with human capital are more

pronounced than those associated with physical capital. Investment in human capital must also be complemented by incentives to retain talent in rural areas, not only to engage in private economic activities, but also to provide public services to rural people. Priority should be placed on avoiding the “hollowing out” of local government leaders and staff, which would undermine public sector effectiveness, including in delivering basic public services. Public investment in human capital can help achieve SDG 3 (good health and well-being) and SDG 4 (quality education) directly. Availability of educated rural youth is also key for achievement of the economic goal of SDG 8 (decent work and economic growth).

Provision of basic public administrative services

Discussions in the preceding chapters have also stressed the necessity of ensuring the access of rural people to essential public services—often called, collectively, social infrastructure. These include law and order; adjudication and justice; and public administration services. Provision of public services, together with physical infrastructure and human capital development, can provide a conducive environment for the growth of private entrepreneurship and bring about the necessary expansion of the non-farm sector in rural areas, as noted in chapter II.

Promotion of communal management of common property resources

Many natural resources in rural areas—including forests, animal grazing lands, water bodies, and even parts of cultivable land—are under common property jurisdiction. These resources often serve as a source of an important part of the consumption and income of rural people who have few private assets. It is important for policymakers to protect these common property resources from encroachment and privatization. One way to do so is to strengthen communal management of these resources by providing the legal basis and creating necessary institutions. Apart from

helping to achieve the social goals of equity, research has shown that, under the right incentive framework, communal management of natural resources can be more effective in protecting them, and thus in ensuring environmental sustainability.

Access to internet and digital technologies and platforms

Ensuring basic physical infrastructure, such as roads and electricity, is no longer enough to achieve successful rural transformation in the current era of digital technologies and the fourth industrial revolution. Adequate access to broadband Internet has become essential, and public initiatives have to play a major role in this regard in most developing countries. One of the success stories of recent technological diffusion is the rapid-fire expansion and adoption of mobile phones by people in developing countries who, in many cases, have leapfrogged over the stage of using landlines and gone directly to using mobile phones. In many cases, this was achieved through private sector initiatives (including initiatives by foreign phone companies). To the extent that most people in developing countries connect to the Internet through their mobile phones, private companies can play an important role in providing Internet services. However, governments still have a critical role to play, both as regulators and investors—for example, in ensuring backbone connectivity through either a submarine cable or satellite connection. Adequate access to broadband Internet is the sine qua non for rural populations to make use of the new technologies of the fourth industrial revolution.

Having considered above the cross-sectoral programmes, it is now possible to turn to the sectoral policies pertaining to particular dimensions of sustainable rural development. These are presented in the next three sections, devoted to issues of (i) growth and balanced settlement; (ii) poverty and inequality; and (iii) environmental protection.

Policies directly addressing issues of inclusive growth and balanced settlement

Discussions in the previous chapters have offered many policy suggestions that pertain directly to the issues of inclusive growth and balanced settlement of the population.

Raising agricultural productivity

Policymakers need to realize that the starting point for rural transformation in most countries is increasing agricultural productivity, primarily as the outcome of private initiatives of farmers. However, public policies and investments have a critical and complementary role to play. Thus, public investment in rural physical and social infrastructure and human capital development can be an important determinant in raising agricultural productivity. Public programmes to improve crop varieties and provide necessary extension services are also important. Other public policies, such as ensuring stable remunerative prices for agricultural output—partly by reducing or eliminating middle interests and instead establishing direct connection between producers/farmers and consumers—can play an important role as well. To the extent that global value chains (GVCs) are expanding in agriculture, and a greater share of agricultural output is produced for export, ensuring stable remunerative prices may also require regional and global cooperation. Public policy can also play an important role in raising agricultural productivity by ensuring the needed financing without leading farmers into debt traps.

Expansion of non-farm activities

If raising agricultural productivity is the first step in successful rural transformation, the second step is translating the productivity growth into expansion of non-farm activities in rural areas. These activities can either be related to agriculture—for example, following its forward and backward linkages—or unrelated to agriculture. Expansion of non-farm activities may primarily be the outcome of private sector initiatives, in

which case public policies can play a supportive role through financing, providing information, knowledge, training and administrative support, among others. These policies can also help to recruit the necessary personnel, for example, by encouraging the rural youth to stay and join the non-farm activities instead of migrating to cities where they face an uncertain future. In many countries, the expansion of non-farm activities has been greatly facilitated—initially, at least—by the growth of cooperative enterprises. In those cases, public initiatives, particularly of local governments, have a more direct role. Policymakers need to be aware of these alternatives and choose those that would be the most effective for achieving sustainable development.

Choice of the appropriate spatial model for non-farm activities

Public policies also have an important role in guiding the impact of expansion of non-farm activities on the nature of rural-urban spatial combination. For example, left to itself, this expansion may take the form of green-field urbanization, under which a rural area loses its basic physical characteristics and becomes afflicted by various urban ills. By contrast, policymakers may guide the process in a way that maintains the general rural nature of the area and thus conform with the in-situ urbanization model of rural development. Guiding the expansion of non-farm activities towards the in situ modernization model can help to achieve environmental goals of rural development also.

Policies for successful rural transformation under global value chains

To ensure that participation in agricultural GVCs would truly contribute to rural transformation, countries need to carefully calibrate their participation based on domestic and external conditions, including factor endowments, institutions, geography and market size. Based on their understanding of these conditions, policymakers need to pursue tailored policies that, among other things, aim to (i) maintain fair valuation of the exchange rate; (ii) expand market access through trade

agreements; (iii) encourage foreign direct investment; (iv) provide a stable and predictable legal environment for business transactions; (v) ensure product compliance with international standards; and (vi) reduce trade costs by improving connectivity and simplifying customs and border procedures.

Creating an enabling trade environment, however, is not sufficient for successful participation of rural economic actors in the GVCs. These economic actors also need to have a practical grasp of their options, required capabilities, and the actions they can take to achieve desirable participation in global production. Rural economic actors are at a particular disadvantage, given their relative lack of access to such information. In developing countries, where rural producers are generally short of resources, Governments must play an active role in providing the necessary information and must help rural producers to find their niche within GVCs and utilize it efficiently.

Policies for successful use of new technologies

The right underlying infrastructure and supportive financial and regulatory environment can help technology serve as a catalyst and accelerant for rural transformation. Infrastructure investment in physical or digital connections, in the form of roads and digital networks, expands the reach of technologies into more remote and rural areas. At the same time, Governments can continue to accelerate their investments in expanding access to electricity, lowering Internet costs, providing education and digital literacy, and implementing regulatory changes to encourage new digital ventures and services.

The new technologies should not crowd out investments for the old. Billions of people are still stuck with pre-industrial technologies, with limited access to the modern education and health systems necessary for accumulating the minimum level of human capital required for adopting many digital technologies. Governments should redouble their investment in lifting these people from the pre-industrial technological level to a level from where they can take advantage of the

new digital technologies. Developing the right financing and public-private partnership structures can accelerate investment in providing basic services to those most in need.

Policies directly addressing issues of rural poverty and inequality

Discussions in the previous chapters have offered many policy suggestions that pertain directly to issues of rural poverty and inequality.

Access to land and promotion and support of smallholder agriculture

With agricultural growth being two to three times as effective in reducing poverty as growth in other sectors, one of the important tasks of policymakers is to decide which particular agricultural model(s) to promote. Research has shown that smallholders—many of whom live in poverty and lack access to resources—use more labour per unit of land, so that more land in their hands can create more employment, especially among low-income earners. The experience of successful newly industrial countries shows that equitable initial distribution of land can provide the basis for a broad-based economic growth with desirable socioeconomic outcomes. By contrast, unequal distribution of land concentrates the benefits of increased agricultural productivity growth in the hands of the few, thus widening inequality, hindering broad-based growth, limiting the expansion of domestic demand, and dampening the expansion of non-farm activities. Practicing mixed and organic farming is generally considered easier for smallholders. Thus, the smallholder agricultural model has both socioeconomic and environmental merits for developing countries with limited land and large rural population.

Policymakers may therefore consider land and tenure reform policies that can promote smallholder agriculture. By increasing the security of rights, tenure

reform can encourage investment in land and raise productivity, even in the absence of outright ownership. Policymakers need to devise creative compensation packages that can help to overcome political difficulties, considered to be the most important hurdle to land and tenure reforms; this will also be important for upgrading the technology of smallholder agriculture to the industrial level.

Digitization of land registration

An important step towards progressive land ownership and tenure systems is comprehensive and accurate land registration. Digital technologies have created new opportunities in this regard. Combined with digital mapping, accurate cadastral surveys and land recording and registration can now be conducted faster and with less effort. Digitization of land records can greatly aid transparency and dissemination. Policymakers of all developing countries should take up digitization of land registration as an important and urgent task.

Social protection

Faced with disproportionate levels of poverty, seasonal and informal employment, unsafe working conditions, limited access to markets, lack of access to basic services, and exclusion based on gender, ethnicity and other factors, it is essential for rural people to have access to social protection. However, social protection coverage in rural areas is generally lower than in urban areas and few programmes are explicitly tailored to match rural specificities. There are a number of structural, legal, administrative and financial barriers that must be addressed in order to overcome this disparity. 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.

Social insurance schemes are generally based on contributions, and the benefits are tied to the contributions made. However, there is increasing recognition of the merits of ensuring a universal social protection

floor, irrespective of the amount of the contributions. Universal protection floors also avoid the stigma that is often associated with targeted welfare programmes. Universal protection programmes also accord well with the general principle of the 2030 Agenda for Sustainable Development—to leave no one behind.

Special attention to rural women

In most developing countries, rural women play a crucial role in production and output processing activities. In many cases, homesteads are also where a variety of production and output processing operations are conducted, and women take on many of these functions as part of their extended household work. Many women also work outside in the fields and in non-farm activities as hired labour. They need special protection. Ensuring adequate opportunities for education and health for the rural girls can be the starting point of ending gender disparity in rural areas.

Rural women often have limited rights over land and natural resources. In many parts of the world, they still face discrimination in relation to land rights, due to a combination of traditional practices and discriminatory laws. 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. Furthermore, obstacles such as high female illiteracy rates, discriminatory application of laws and inadequate enforcement must also be addressed in order for women to fully exercise their land rights.

Secure and equal access to land is necessary, but it is insufficient by itself to foster the effective use of land by rural women. Rural women also need improved access to other resources, such as credit, technology, extension services and markets. Land reform policies should be complemented by efforts to improve these aspects as well.

Special attention to indigenous peoples

Overcoming the history of marginalization, discrimination and poverty faced by indigenous peoples and

ethnic minority communities requires a broad set of economic and social policies. Education, for example, should be offered to indigenous peoples in their native languages, and should acknowledge and promote their cultural heritage. The design and implementation of social protection programmes should be based on intercultural dialogue and the participation of indigenous peoples and ethnic minority communities in decision-making. The spatial disadvantages of living in remote rural areas can be partially offset by investing in high-quality public services in those areas.

Indigenous peoples are vital partners in achieving the SDGs. Their in-depth understanding of natural cycles, indigenous food systems and traditional knowledge contributes to the protection of biodiversity and the fight against climate change. Their lands and territories are home to a vast biological diversity of species. For indigenous peoples, land is often not seen as a commodity: it is a sacred part of their cultural identity. Most indigenous peoples have land tenure systems based on collective rights, regulated by customary laws and tradition. However, in many parts of the world, these rights are either only partially recognized or not recognized at all by national Governments. A lack of recognition of their customs and how they conceive of territory leads to conflict, marginalization and, ultimately, poverty. To ensure a prosperous future for indigenous peoples, both culturally and economically, secure access to their ancestral lands must be guaranteed.

Special attention to older persons

Policies need to be directed at meeting the needs of older persons living in rural areas. In many countries, old age pension and social security programmes do not encompass the rural areas, so older persons in those areas often have to depend on their children. A particular area in which they need assistance is health care. Even in countries where comprehensive social security programmes may take more time to emerge, Governments need to adopt special policies and programmes to ensure adequate income and health care for the rural elderly.

Special attention to the needs of youth

At the other end of the age spectrum, youth also require special attention. Migration of rural youth to urban areas can result in workforce and talent losses for the rural economy. Fortunately, the Internet has created new possibilities for retaining the youth in rural areas and revitalizing societies. Also, further application of high-end technologies has created the possibility of making agriculture attractive to youth. However, special policies are needed to make use of these possibilities. General policies aimed at provision of electricity, broad-band Internet connection, and others, are important in this regard.

Micro-insurance

Policies promoting micro-insurance can play an important role in protecting rural people from the impact of crop loss due to unexpected weather events and in ensuring minimum income in the event of disabilities and death (for survivors). Weather-indexed crop insurance schemes, based on objective indicators such as deviation of rainfall from the average, have been found to be simpler and less costly than traditional insurance, where losses have to be verified after occurrence. Similarly, micro-insurance aimed at protection against unexpected injury and death can be affordable and effective for many in the rural areas. Policymakers can help to make these effective micro-insurance schemes available for the rural population.

Policies addressing environmental issues

Since most of the natural capital of a country is generally located in the rural areas, rural development has a particular role in protecting the environment. Some of the recommendations that emerged from the analysis in chapter IV and other chapters focus on (a) adoption of technologies to conserve and protect water and land resources; (b) promotion of circular and conservation practices; and (c) strengthening of institutions for natural resource management.

Policymakers have a major role to play in preventing water and land resources from depletion, degradation, and pollution.

Policies for protecting water

- **More efficient irrigation.** Past policies, particularly heavy investment in dams and barrages to make cheap water available, have led to inefficient methods of agricultural irrigation. Policies are needed to move away from that path. These include the adoption of *drip irrigation* in agriculture;
- **Increasing local availability of water.** Policies may be directed towards increasing local availability of water instead of relying on transported water from faraway and often depleted rivers. Promotion of *rainwater harvesting*, through construction of *local reservoirs* and other means, can be effective in this regard;
- **Recycling and reuse.** Promotion of recycling and reuse of water, through use of appropriate retention, treatment, and redirection of water, is needed. This can be particularly effective in conserving water;
- **Shifting towards precision agriculture.** Policies promoting technologies of precision agriculture can provide a win-win solution. Precision agriculture can reduce the necessity of chemical fertilizers and pesticides drastically and at the same time improve water-use efficiency and mitigate water pollution that result from chemical run-offs. Promotion of precision agriculture will require provision of ICTs for all, including smallholder farmers.

Policies for protecting land

- **Raising crop productivity.** An important policy objective is raising the productivity of agriculture by minimizing the use of land and water resources. Land use planning and sustainable agricultural intensification can help in reducing the demand for land;
- **Reduction in the use of chemical inputs.** Reduction in the use of chemical fertilizers and pesticides through adoption of precision

agriculture can help to protect the soil quality in the long run;

- **Adoption of light ploughing.** Policies need to encourage a move away from deep ploughing for increasing crop output. The adoption of precision agriculture can help to attain higher agricultural productivity through the method of light ploughing;
- **Rotational livestock.** Livestock production systems contribute significantly to total greenhouse gas emissions, which needs to be considered when addressing land degradation. A low-cost strategy to address the problem of land degradation is to increase rotational livestock grazing;
- **Land restoration.** Land restoration can raise groundwater levels, increase crop yields and induce positive changes in the fauna of the respective region. Farmer-managed natural regeneration and tree planting and protection have been used successfully on agricultural lands.

Apart from the above policies directed towards the protection of water and land resources, there are policies that can be beneficial in a more general way.

Promotion of mixed farming

Policies are needed to promote mixed farming over mono-crop agriculture. Under mixed farming, waste from one crop can serve as a fertilizer for another. Also, mixed farming allows combining crop cultivation with animal husbandry, so that waste from one can serve as production input for the other. Under mixed farming the same water can serve multiple purposes, thus ensuring greater efficiency of water use. Farmers of developing countries used to practice mixed farming. Policies can be directed to encourage reinstatement of this practice, although with upgradation to a new technological level.

Promotion of organic agriculture

Policies are needed to promote organic agriculture, which can have multi-dimensional impact in promoting environmental sustainability and resilience and can also respond to changing consumer preferences in ur-

ban areas, as noted in chapter IV. However, government policies are needed to ensure that organic agriculture is not a return to pre-industrial, low-productivity farming but instead is an upgradation to a high-productivity, technologically sophisticated and more valuable agricultural output. Government policies can advance upgradation through promotion of necessary research to further close the yield gap between organic and conventional farming. Government policies can also help raise public awareness of the merits of organic agriculture, particularly in avoiding the negative externalities associated with conventional farming based heavily on inorganic, chemical inputs.

Promotion of indigenous seed bank and species

Government intervention and policies are needed to protect the indigenous seed bank and species, which are under increasing threat from large companies promoting new seed varieties that need to be purchased each year. Government can promote research that helps to raise the productivity of the indigenous varieties of crops. It can also help to raise awareness among the public about the merits of the indigenous varieties of crops and species. Given the changing climate, traditional crops can become key for sustainable food production as local varieties with a high degree of genetic diversity may better withstand and adapt to environmental stress and changes. It will be critical for sustainable rural development to protect indigenous seed banks and ensure their ability to conserve their seed collection as well as ensuring scientists' and farmers' access to these seeds, which can foster crop improvement efforts and result in positive ripple effects for food production.

Policies for strengthening institutions

Policies are needed for creation and strengthening of local institutions that are necessary for ensuring environmental sustainability of rural development. Both land and water protection often require collective effort of the farmers and rural residents. This is particularly

true for the protection of water bodies, which are generally common property resources. However, collective efforts cannot materialize unless there are appropriate institutions that can organize and provide leadership on such efforts. In building and strengthening these local institutions, authorities can benefit from the successful experiences of other countries. However, such measures must also suit the specific physical, social and cultural conditions of a country. With appropriate attention to the country specificities, rural institutions can be a driving force for environmentally sustainable rural development.

Economic instruments can also play an important role in furthering sustainable land management. Direct subsidies can incentivize farmers to improve soil management. Conditional fertilizer subsidies could, for example, be provided if farmers adopt an easily verifiable organic soil fertility management practice. Subsidy programmes could also be further developed to provide payment for ecosystem services and compensate farmers for their reforestation efforts.

Conclusion

A concerted effort is needed to harness the potential of rural people and rural resources to ensure sustainable development in general, and achieve the SDGs in particular. That effort should be grounded on the principle of improving the lives and livelihoods of rural populations, and not be a technocratic exercise of economic, social or environmental policy. It is important to achieve growth of rural economies without sacrificing environmental sustainability. Inequality must be addressed without undermining the incentives for growth and risk-taking. Protecting the environment must be balanced with new, sustainable livelihood options for rural people. More importantly, the political voice and concerns of rural populations must be part of the process that aims to change their lives. Once necessary attention is given to these issues, rural development can be a powerful force driving overall national development towards achieving the 2030 Agenda for Sustainable Development, including the SDGs.

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