



**OVERVIEW**

# Transforming food systems for rural prosperity







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# Acknowledgements

The Rural Development Report 2021 was made possible by the hard work, contributions and expertise of people both within and outside the International Fund for Agricultural Development (IFAD).

The report was prepared under the guidance of the Associated Vice-Presidents of the Strategy and Knowledge Department, Paul Winters and Meike van Ginneken, and the IFAD Senior Management team. Romina Cavatassi was the IFAD technical lead providing oversight and coordinating the report preparation, supported by external consultants Jim Woodhill, Leslie Lipper and Garrett Berghoff.

The report draws on the research and analysis of 23 background papers prepared by lead authors Carlos Alho, Aslihan Arslan, Inge D. Brouwer, Tomaso Ceccarelli, Benjamin Davis, Sophie De Bruin, Confidence Duku, Edith Feskens, Alessandra Garbero, Ken Giller, Cees Leeuwis, Leslie Lipper, Simon Oosting, Agnes Quisumbing, Delia Randolph, Thomas Reardon, Catharien Terwisscha van Scheltinga, Sijmen Schoustra, Maximo Torero, Paul Winters, Siemen van Berkum, Yuca Waarts and Jim Woodhill. The research was coordinated by Ruerd Ruben, Eric Smaling, Siemen van Berkum, Joost Guijt and Bart de Steenhuijsen Piters of Wageningen University & Research (WUR). The background papers are being published through the IFAD research series and in a special series of the Food Security Journal. Marijke Kuiper and Monika Verma conducted the MAGNET modelling and produced the accompanying report. Regional consultations were led by Joost Guijt and Just Dengerink of WUR. Filippo Artuso, Patricia Espinosa, Emily Hogue and Tisorn Songsermsawas worked on the data annex (Annex 2).

Several experts and colleagues both within and outside IFAD provided useful comments and inputs, participated in consultative workshops, peer reviewed background papers or chapters, contributed to case studies, took part in interviews and made other valuable contributions. Our thanks go to



Richard Abila, Astrid Agostini, Naty Barak, Rui Benfica, Boris Bravo-Ureta, Clemens Breisinger, Fabrizio Bresciani, Nigel Brett, Andrea Cattaneo, Jonas Nwankwo Chianu, Shirley Chinien, Mawira Chitima, Renata Clarke, Antonella Cordone, Isabel De La Peña, Robert Delve, Eleonora Dupouy, Ans Eilander, Frederica Emma, Shenggen Fan, Jessica Fanzo, Simon Fraval, Mattia Prayer Galletti, Javier Ramirez-Gaston, Sinafikeh Gemessa, Alashiya Gordes, Sydney Gourlay, the late Edward Heinemann, Anna Hovhannisyan, John Hurley, Steven Jonckheere, Angelika Kessler, Mylene Kherallah, Avinash Kishore, John Kiwagolo, Carlos Manuel Icaza Lara, Rik Leemans, Violeta Lemic, Ken Lohento, Mark Lundy, Arthur Mabiso, Giuseppe Maggio, Mariame Maiga, Mywish Maredia, Elly Matende, Sara Mbago-Bhunu, Maureen Miruka, Zahra Lillian Mokgosi, Jamie Morrison, Joyce Njoro, Maness Nkhata, Rob Nout, Rikke Olivera, Peter Oosterveer, Oliver Page, Miguel Oscar Sierra Pereiro, Elena Pietschmann, Bettina Prato, Jyotsna Puri, Elizabeth Ransom, Philippe Remy, Antonio Rota, Moussavi Sara, Sara Savastano, Amath Pathe Sene, Rashid Shahidur, Jone Sinavi, Tisorn Songsermsawas, Kostas Stamoulis, Ricci Symons, Akalu Teshome, Thyda Thaung, Nicolas Tremblay, Michael von During, Dragan Vuckovic, Jeevika Weerahewa and Stephen Zeinorin.

Nick Moschovakis and Bruce Ross-Larson provided invaluable editorial services. Andrea Wöhr was the principal graphic designer. Galley proofing was undertaken by Visiontime. Special thanks go to Raniya Sayed Khan, Bruce Murphy, Birgit Plöckinger, Janet Sharpe, Laura Sollazzo and David Suttie for their guidance and support throughout the production of the report. We would also like to thank Marta Gómez Barrera, Sophie Blondel, Fernando Campos, Paola de Leva, Said Ahmad El-Elaimi, Ximena Novoa Cleves, Sanaa al Sioufi and Jacques Vandelook for their translation and proofreading services.

To the many others who assisted in regional consultations and case studies, we thank you all. We apologize to any individuals or organizations inadvertently omitted from this list, but we express our gratitude to all who contributed to this report.

# President's Foreword

Food is our most essential need. Food systems – the production, processing, retailing and delivery of food, consumer dietary preferences, disposal of what remains of food consumed and produced – affect the global economy, the global environment, and every person on the planet. Food systems are also a key element in delivering on the Sustainable Development Goals. Yet, despite unprecedented economic growth, progress in calorie production and reductions in food insecurity in recent decades, food systems as they now operate – globally, nationally and locally – are failing to deliver desired outcomes for the climate, for the environment, for nutrition and human health, and for social welfare.

The transformation of food systems is a burning topic across the globe, in response to concerns about the nutritional, environmental and equity impacts of our current system. Food system transformation is inextricably linked with efforts to eradicate hunger and poverty, since the livelihoods of a large share of the world's poor people are based upon such systems and we cannot afford to leave rural people behind. This is why IFAD's *Rural Development Report 2021* is focused on rural livelihoods in the context of food systems transformation.

The report promotes equitable livelihoods for rural people, who are front and centre in transforming food systems, alongside the need to improve nutrition and protect the environment. The global need for more nutritious food, ecosystem services and a low-carbon economy also offers the potential for new and innovative livelihood opportunities.

The *Rural Development Report 2021* was prepared by IFAD working in close collaboration with Wageningen University over a two-year period. It also presents novel results of a global quantitative modelling exercise that simulated the impacts of various types of transformative changes on a range of environmental, social, economic and nutritional indicators. These analyses were informed and enriched by regional consultations and interviews with experts.

The report analyses the issues arising in different segments of the food system (consumption, production and midstream) in relation to the lives of poor rural people, identifying potential entry points for positive change. It envisages the overall goals of a food system's transformation as ensuring that people are able to consume diets that are healthy, to produce food within

planetary boundaries and to earn a decent living from their work within food systems. Central to these goals is the need to ensure that food systems are resilient to shocks – to the pandemic we are currently facing, to climate change, and to other threats.

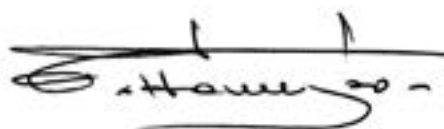
Also key will be a focus on food systems at local levels. This means connecting dynamic small-scale farms with value-addition activities across food systems to promote a more diversified range of livelihoods for rural people. Strong rural-urban linkages, territorial development, enabled by digital connectivity, will be essential.

Entrepreneurial capability, business support and private sector partnerships will be crucial in all of this – as will be targeted approaches to ensure the inclusion of women, youth and indigenous peoples.

The changes required to achieve our goals are far-reaching. Systemic change will be needed to reshape the deeper structural inequalities that constrain the livelihoods of rural people. Transforming food systems in a way that breaks down these barriers will necessarily challenge established assumptions, mindsets, procedures, political and economic interests, and power relations. Such change can happen only with extraordinary collaboration, coordination and communication across sectors, and across governments, development partners, the private sector, civil society, rural people's organizations and the scientific community.

The United Nations Food Systems Summit provides a platform where we can work together to achieve lasting change. As the *Rural Development Report* is launched on the precipice of this Summit, it is my hope that the lessons herein can contribute to the implementation of the commitments that will emerge from the Summit as a shared global agenda for transforming our food systems.

The global reality we face today is more complicated and challenging than any most of us can remember. Yet, we also have a historic opportunity to come together and transform our food systems in a way that will improve the lives of people today and tomorrow. This must be the pathway for achieving the Sustainable Development Goals and for realizing the future we want.



GILBERT F. HOUNGBO  
President of IFAD





# Readers' guide

## Overview

The Overview pulls together the analyses in the three parts with a focus on rural prosperity in the wider context of transforming food systems. It starts with livelihoods and the linkages with resilience, nutrition and the environment. It defines pathways to realize diversified and equitable rural livelihoods in an inclusive agrifood economy. It highlights the essential role of diversifying livelihoods across productive farming, off-farm employment and enterprises, and social protection. And it discusses how the foundations for change need to be aligned so that rural people can escape poverty by benefiting from opportunities in food systems.

The overall goals of a food system's transformation are to ensure that people are able to consume diets that are healthy, to produce food within planetary boundaries and to earn a decent living from their work in the food system. Livelihoods, nutrition and environmental goals are interlinked. Central to these desired outcomes is the need to ensure that food systems are resilient to shocks from weather extremes, pest and disease outbreaks, climate change and market anomalies.

Rural people's livelihoods have diversified rapidly in recent decades. While most rural households still farm, many now combine farming with other sources of income to meet their needs. This diversification includes

labouring on other farms, operating a wide variety of small and medium-sized enterprises (SMEs) in the agrifood sector or wider economy, salaried employment, and remittances from family members who have migrated to urban areas or abroad. Poorer households may also benefit from social protection. Many small-scale farmers also farm alongside their other non-farm income-earning activities. The most marginalized – including female-headed households, youth and indigenous peoples – are often landless and depend entirely on non-farm income.

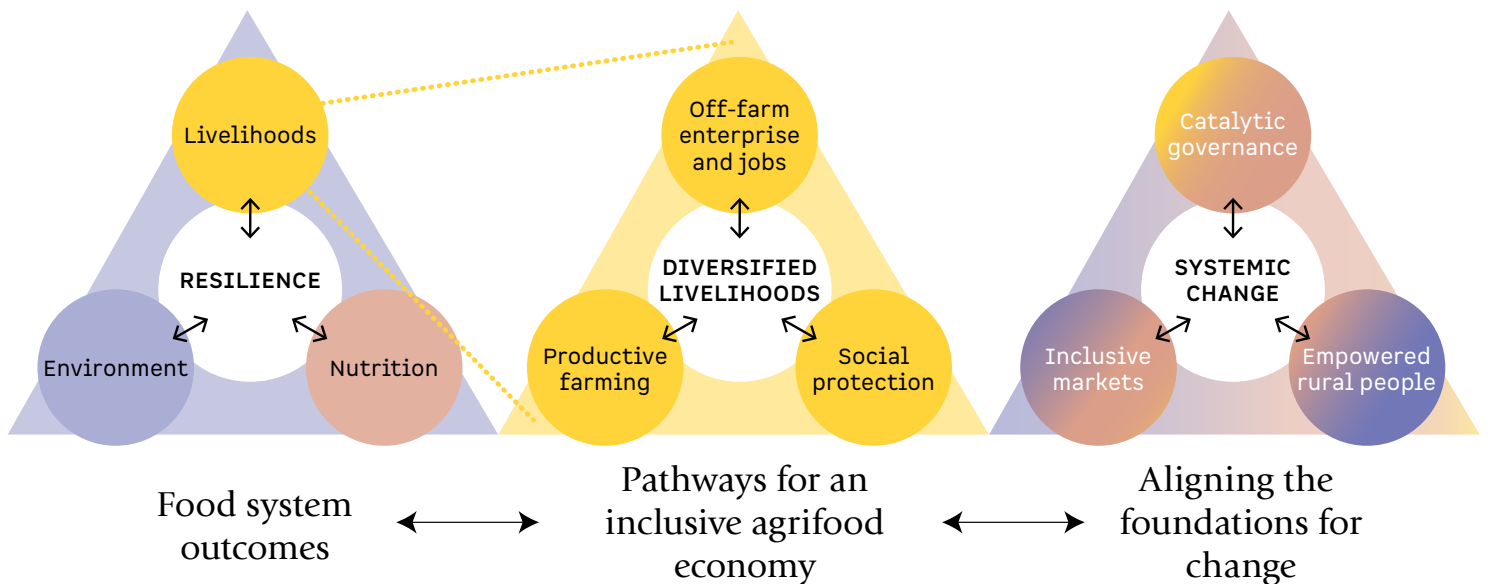
The required changes are far-reaching. The global agenda for transforming food systems can help rethink pathways out of rural poverty and inequality. Systemic change will be needed to reshape the deeper structural economic, political and cultural factors that inhibit equitable livelihoods for rural people, and that inhibit the creation of a healthy and sustainable food system. Transforming food systems will challenge established assumptions, mindsets, procedures, political and economic interests, and power relations. Deep policy reform and substantial investment will be needed. Such change can happen only with extraordinary collaboration, coordination and communication across sectors, and across government, business, civil society, rural people's organizations and the scientific community.

Small-scale farmers, agrifood entrepreneurs and rural workers produce, process and distribute much of the world’s food. Yet many are unable to earn a decent living. The *2021 Rural Development Report* examines how a more inclusive food system can generate equitable and diversified rural livelihoods on and off the farm. It emphasizes the untapped potential of the food system midstream – the vast network of agrifood enterprise activity between the farmer’s gate and the consumer’s plate. Supporting small and medium-sized enterprises (SMEs) and entrepreneurs in the midstream will be essential for unlocking inclusive economic opportunities across the food system.

The framework of this Overview has three pillars (**FIGURE 1**):

- **Outcomes** to transform food systems so that they provide nutritious food and decent livelihoods, protect the environment and are resilient to shocks.
- **Pathways** to realize diversified and equitable rural livelihoods in an inclusive agrifood economy.
- **Aligning the foundations for change** so that rural people can escape poverty by benefiting from opportunities in the food system.

**FIGURE 1** TRANSFORMING FOOD SYSTEMS FOR EQUITABLE AND DIVERSIFIED RURAL LIVELIHOODS





The global agriculture, food and beverage sector, with associated services, is worth about US\$10 trillion (FOLU, 2019). In low- and middle-income countries, the agrifood sector is growing rapidly as populations increase, urbanize and become wealthier (FAO, 2017; FAO et al., 2017). In Africa, for example, the agribusiness sector is projected to triple between 2014 and 2030 to reach a value of US\$1 trillion (World Bank, 2013). The share of farming in economies falls as countries grow richer and employment diversifies – and people become willing to pay for healthier diets and environmental services. More of this economic value can be created and captured in rural economies to drive diversified and equitable livelihoods there.

Small-scale family farmers are still the foundation of food supply across all low- and middle-income countries. They play a critical role in reducing rural poverty and ensuring national food and nutrition security. Investing in and creating the conditions for productive, economically viable and environmentally sustainable small-scale family farming must be at the core of the agenda to transform food systems.

However, many small-scale farmers are unable to earn a decent living from farming alone due to their very small plots of land, low prices for produce, deteriorating environmental conditions, low productivity and poor market access (Woodhill, Hasnain and Griffith, 2020; Giller et al., 2021). There are also millions of landless rural labourers, often the most destitute in rural areas. And for many countries, a rapidly expanding rural youth population has aspirations for a rewarding livelihood but faces increasing difficulty accessing land as populations increase (IFAD, 2019). Consequently, overcoming rural poverty and inequality to achieve the Sustainable Development Goals will depend on the potential of food systems to grow rural economies and generate diversified and equitable livelihoods (FAO, 2017; IFPRI, 2020). Innovation and entrepreneurship in the food system midstream will be key to realizing this potential through expanding market opportunities for farmers and generating increased off-farm livelihood options.

An inclusive approach to transforming food systems requires close attention to the diversity of rural people's contexts, circumstances, vulnerabilities and opportunities. Rural poverty and inequality are easily overgeneralized. Rural people are often assumed to be predominantly small-scale farmers, and the diversity of small-scale agriculture is oversimplified. Further, the disadvantages and vulnerabilities of women, youth and indigenous groups are insufficiently understood (Davis, Lipper and Winters, 2021). The diverse experiences of rural poverty have implications for the nature and scale of the challenges, the types of innovations and solutions that can work, and the data and evidence needed for tailored responses.

Equitable livelihoods are not just about income. Rural people earn their incomes from producing food and are consumers of food. Their livelihoods and health depend on earning a fair income from the food system, and on purchasing nutritious food at affordable prices, leaving them enough money to pay for other costs of living. Equitable livelihoods also means leaving no individual or group behind and investing in the fabric of social cohesion. This

requires focusing on the empowerment of women and girls, and the needs of minority groups and indigenous peoples. Rural women, men and youth must be agents of their own destiny – equipped and empowered to seek out, take up and benefit from opportunity and to have an influential voice in decisions affecting their future.

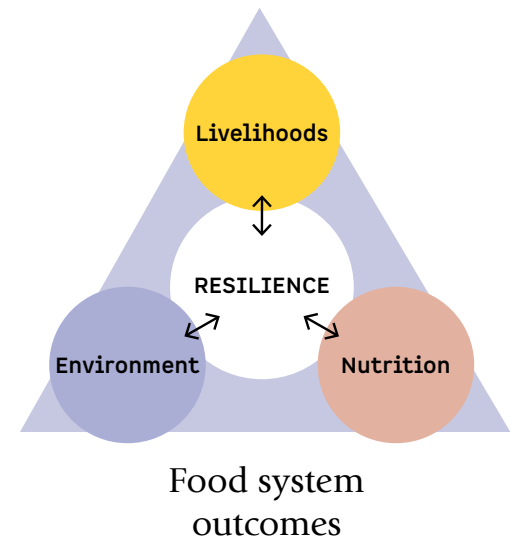
## Food system outcomes

The overall goals of a food system's transformation are to ensure people are able to consume diets that are healthy, to produce food within planetary boundaries and to earn a decent living from their work in the food system. Livelihoods, nutrition and environmental goals are interlinked. Central to the desired outcomes is the need to ensure that food systems are resilient to shocks from weather extremes, pest and disease outbreaks, climate change and market anomalies.

Past food and agricultural policies, though well intentioned, have generated incentives, externalities and spillover effects that are driving poor nutrition, environmental decline and rural inequality. Since the 1960s, food systems have changed beyond recognition (Alexandratos and Bruinsma, 2012). As the global population rose by 142 per cent between 1961 and 2016, average cereal yields increased by 193 per cent and calorie production by 217 per cent (Benton and Bailey, 2019). Hunger decreased sharply. Yet, paradoxically, as the efficiency of food production increased, the efficiency of food systems in delivering nutritious food declined (Benton and Bailey, 2019). Today's food systems are failing to provide decent livelihoods for many of those who work within them. Yield growth has been accompanied by unsustainable environmental degradation.

Ignoring the interlinkages between these dimensions of food systems produces unintended and uncompensated costs and consequences. Critical trade-offs must be navigated, including between keeping food affordable for all, improving nutrition, paying the true environmental cost and enabling those who produce food to earn a decent wage (OECD, 2020a).

The nature of food systems and the ways in which they function vary substantially across different geographies, different market segments and the political economies of different countries (**TABLE 1**). They range from localized traditional systems with informal markets to the consolidated supermarket-driven model of high-income countries. Such differences greatly influence the level of agricultural employment, the role of small-scale producers and the way the midstream functions, with significant implications for livelihood opportunities.



**TABLE 1 TYPES OF FOOD SYSTEMS AND IMPLICATIONS FOR RURAL WELL-BEING**

<b>FOOD SYSTEM TYPE</b>	<b>DESCRIPTION</b>	<b>IMPLICATIONS FOR RURAL LIVELIHOODS AND WELL-BEING</b>
Traditional	<ul style="list-style-type: none"> <li>- Food produced and consumed locally, traded through informal open markets with no formal contracts</li> <li>- Value chains are short, few food quality and safety standards</li> <li>- Little consumption of processed foods</li> <li>- Agricultural production predominantly by small and very small farms</li> <li>- Agricultural productivity low but employment high</li> </ul>	<ul style="list-style-type: none"> <li>- Low farm incomes; high household dependence on farm income</li> <li>- High levels of poverty and food and nutrition insecurity</li> <li>- Limited off-farm employment opportunities</li> <li>- Constrained access to markets for inputs and outputs</li> </ul>
Diversifying	<ul style="list-style-type: none"> <li>- Expanding network of SMEs in food value chains serving urban food demand</li> <li>- Trade is largely informal and dominated by spot markets</li> <li>- Urban retail largely through wet markets</li> <li>- Emergence of standards and formal contracts for some trade</li> <li>- Increased consumption of processed foods</li> <li>- Increase in food imports competes with local production</li> <li>- Some specialized production for export markets</li> <li>- High employment in agriculture and midstream, with labour-intensive technologies</li> </ul>	<ul style="list-style-type: none"> <li>- Agricultural growth driven by urban food demand</li> <li>- Rapid expansion of employment and enterprise opportunities in midstream dominated by SMEs</li> <li>- Extreme poverty and malnutrition decline</li> <li>- Employment conditions highly variable and open to exploitation</li> <li>- Diversification of rural livelihoods</li> <li>- Dietary transition leads to an increase in overnutrition and non-communicable disease</li> </ul>
Consolidating	<ul style="list-style-type: none"> <li>- Food system industrialized and highly concentrated</li> <li>- Supermarkets dominate retail</li> <li>- High consumption of processed and packaged foods</li> <li>- Global procurement of food</li> <li>- Public and private standards influence all aspects of production, processing and retail</li> <li>- Small number of firms dominate midstream and retail</li> <li>- Complex contractual arrangements</li> <li>- Food system activities are highly mechanized, capital-intensive and low in employment opportunities</li> </ul>	<ul style="list-style-type: none"> <li>- Informal sector opportunities for small-scale producers decline</li> <li>- Opportunities limited to those who can meet stringent standards and supply at scale</li> <li>- Reduced employment opportunities, but regulated labour conditions</li> <li>- Agricultural production often reliant on migrant workers</li> <li>- Substantial price competition in global food market</li> <li>- Increased consumption of high-energy processed foods</li> <li>- Rapid rises in obesity and diet-related poor health</li> </ul>

*Note:* Draws on classifications by Reardon et al. (2019) and the Food Systems Dashboard. Terminology has been changed to avoid the connotation that food systems typical of high-income, industrialized countries, often referred to as “modern”, are necessarily more desirable.

## **Resilience: Reducing risk and anticipating and recovering from shocks**

Risk and uncertainty are inherent to food systems. Risks include incremental change processes (such as climate change, urbanization, evolving global trade regimes), infrequent catastrophic shocks (such as natural disasters, financial and political crises), and unexpected responses of food systems to these processes and events.

Global food security is at risk from the potential for multiple breadbasket failures due to drought, widespread disease and pest outbreaks, and price hikes in global markets (Tendall et al., 2015). Climate change only increases the risks (IPCC, 2019). There is a need to prepare for the risk of concurrent crises affecting the entire global food system and for severe crises that affect localities or regions. The coronavirus disease (COVID-19) pandemic, locust outbreaks and drought across East Africa and the food price crisis of 2008 underscore the vulnerability of food systems (Béné et al., 2021).

Poor people are highly vulnerable to food system shocks (Béné et al., 2021). By definition, poor people have few assets or savings to fall back on. So even minor shocks can push them into destitution. Vulnerability to shocks makes rural people poor, keeps them poor, and prevents them from moving out of poverty. Illness can have major effects on the household through direct and indirect impacts on family labour. Small-scale farmers rely heavily on rainfed agriculture, so flash floods, or even a short spell without rain, can cause harvests to fail, resulting in hunger and a lack of money for school or seeds for the next growing season. Chronic underinvestment in infrastructure, such as water storage, irrigation and food storage, leaves smallholder farmers particularly vulnerable.

When shocks occur, people turn to a range of coping strategies, often incurring debt or selling assets, leaving them ever more vulnerable to future shocks. As low-income rural households decide how to allocate and use cash, land and labour, they generally consider not only the available opportunities, but also the need to minimize exposure or vulnerability to shocks. And they are acutely aware that one slip could send them deeper into poverty, and so may be reluctant to engage in the higher risk, higher return activities that could lift them out of poverty.

A food system approach has to recognize that risks can be reduced but not eliminated. Risks can be reduced by investing in climate mitigation and adaptation, new crop varieties, water management and early warning systems for food shortages and pest and disease outbreaks. Food system transformation needs to create built-in capacities to mitigate the immediate effects of shocks and then rapidly recover.

Risk and resilience are at the core of the vision of rural food system entrepreneurship presented in this report. At its heart, entrepreneurship is about making investments and taking risks with the intention of generating a worthwhile benefit. Reducing risks and enhancing resilience are thus key to fostering the development of viable small-scale enterprise and entrepreneurship.

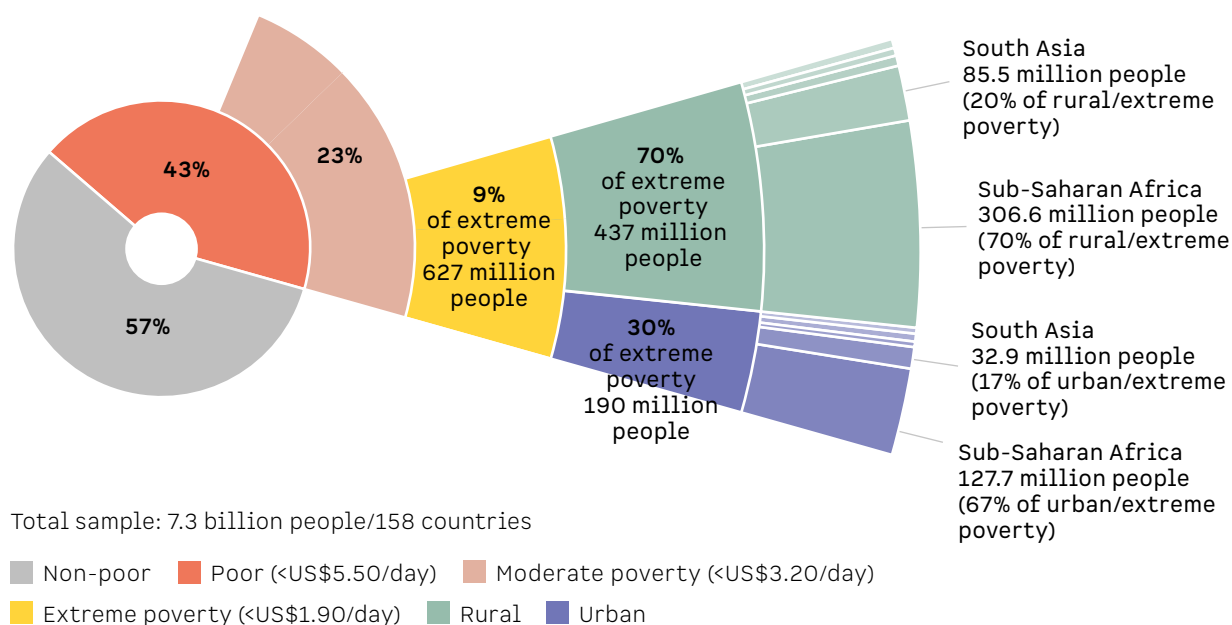
## Livelihoods: Overcoming rural poverty and inequality

The livelihoods of vast numbers of rural people are connected with food systems. In low- and middle-income countries, nearly 3.2 billion people live in rural areas, and most still depend to varying degrees on agriculture and food systems for their livelihoods. Relative to other sectors, the agriculture and food sectors are unique in their scale of employment and their scale of reliance on SMEs. That is why food systems are so critical for tackling poverty and equitably distributing economic opportunity (FAO, 2017; IFPRI, 2020).

The long-term goal for shared prosperity and rural development must go well beyond just lifting people out of extreme poverty (World Bank, 2018). Globally, 627 million people still live in extreme poverty, on less than US\$1.90 per day, while more than 3 billion are poor relative to the World Bank poverty rates for lower-middle- and upper-middle-income countries (**FIGURE 2**). Most poor people live in rural areas (**FIGURE 3**) and most earn their incomes, at least in part, from working in the food system.

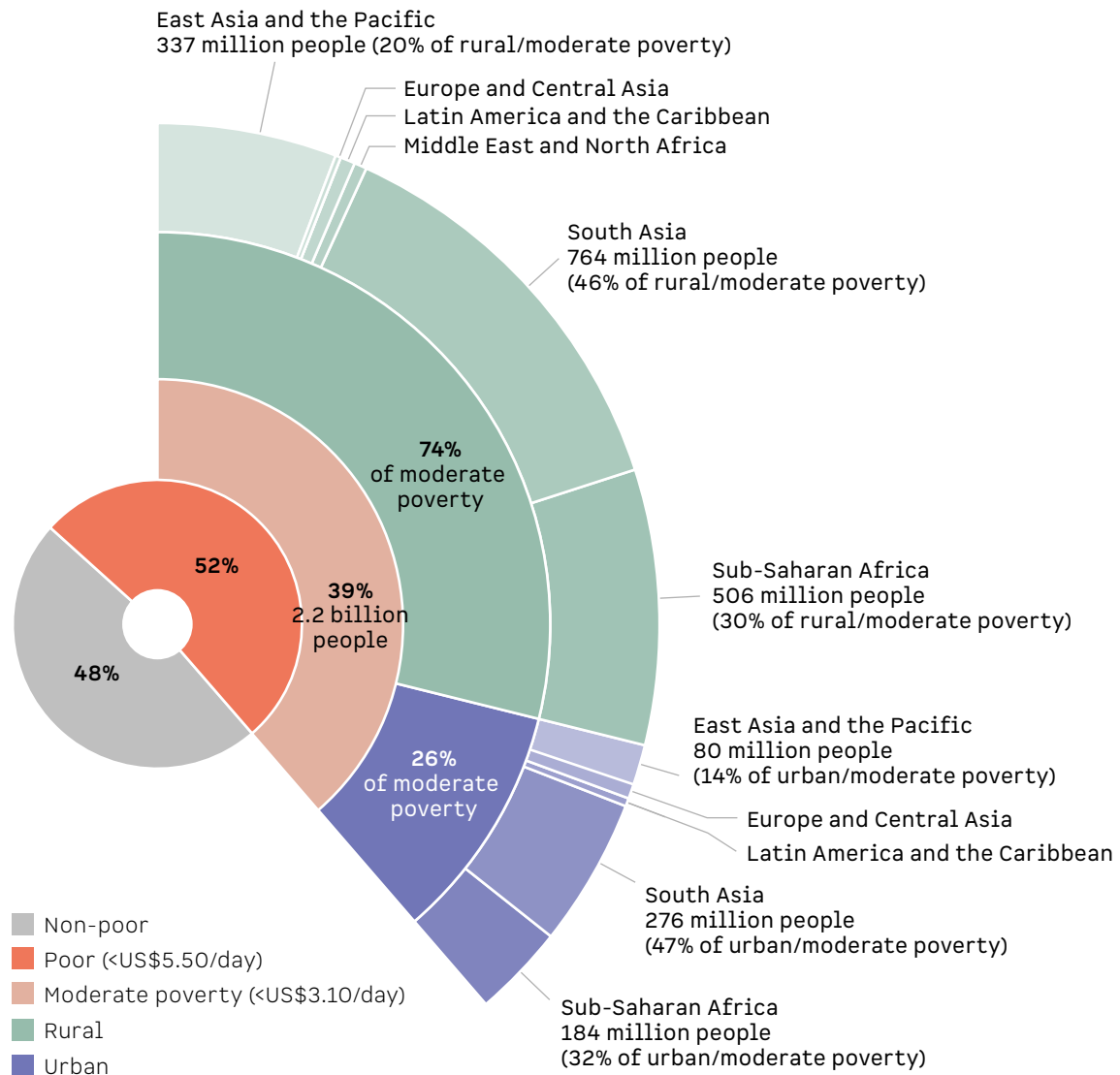
Extreme poverty rates are projected to drop to around 7 per cent of the global population by 2030, with 90 per cent of the extremely poor living in sub-Saharan Africa. Extreme poverty and hunger will also be increasingly concentrated in fragile countries. Moderate poverty will remain high across Asia and sub-Saharan Africa and will be predominantly in rural areas (**FIGURE 3**).

**FIGURE 2** EXTREME POVERTY IS BECOMING CONCENTRATED IN RURAL AREAS, PARTICULARLY IN SUB-SAHARAN AFRICA



Source: Authors' elaboration using information from the World Poverty Clock and PovcalNet (<http://iresearch.worldbank.org/PovcalNet/povDuplicateWB.aspx>).

**FIGURE 3** MODERATE RURAL POVERTY AND INEQUALITY REMAIN HIGH ACROSS EAST ASIA AND THE PACIFIC, SOUTH ASIA AND SUB-SAHARAN AFRICA, PREDOMINANTLY IN RURAL AREAS

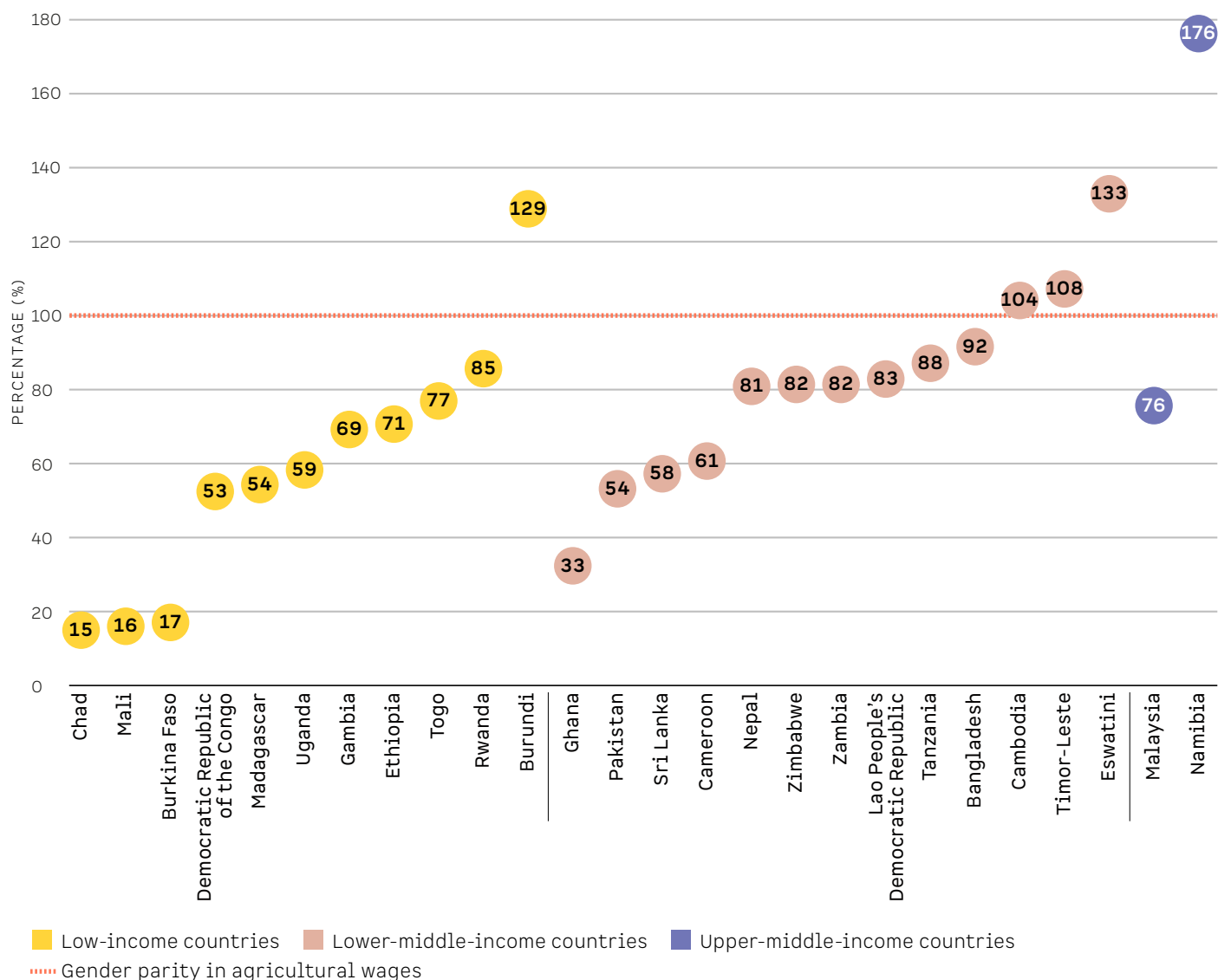


Source: FAO (2017) for moderate poverty and PovcalNet for poverty at US\$5.50 per day (<http://iresearch.worldbank.org/PovcalNet/povDuplicateWB.aspx>).

A focus on entrepreneurship for enhancing equitable rural livelihoods will work for all only if accompanied by ambitious strategies for gender equality and women’s economic empowerment. Gender inequalities in education, jobs, wages, physical safety and time poverty remain deeply embedded in rural societies (Commission on the Status of Women, 2018) and in how food systems function (Quisumbing et al., 2021). A substantial rural wage gap between rural women and men persists (**FIGURE 4**). Not only does this impact the rights of women and girls and diminish their life opportunities, it also represents a vast lost opportunity in terms of what women can contribute to economic progress in rural areas.

Indigenous communities make up 6 per cent of the global population but 18 per cent of the extreme poor, mostly in rural areas. They are the custodians of 80 per cent of the world's remaining biodiversity, and often their territories coincide with the best-preserved areas (Garnett et al., 2018). They often face discrimination and are deprived of their lands (ILO, 2020). Transforming food systems must take into account the needs of indigenous groups. At the same time, indigenous peoples have much to offer in helping to transform food systems, as their food systems represent a treasure trove of knowledge that contributes to health and well-being, benefiting communities, preserving a rich biodiversity and providing nutritious food.

**FIGURE 4** AGRICULTURAL WAGE GAP FOR WOMEN – SUBSTANTIAL AND PERSISTENT PROPORTION OF MALE AGRICULTURAL WAGES EARNED BY WOMEN



Source: ILO, 2019.

Youth-centred rural transformation needs to focus on connectivity to markets, information and social networks, productivity in education, skills and access to productive resources, and agency in civic and political participation and empowerment (IFAD, 2019). The current global rural youth population is 780 million if peri-urban areas are included, with 65 per cent in Asia and the Pacific and 20 per cent in sub-Saharan Africa. Demographic trends in sub-Saharan Africa mean that annual newcomers to the workforce will rise from 20 million today to 50 million by 2050. The rapidly growing numbers of rural youth in Africa present a huge employment challenge. Without employment opportunities, a whole generation will not escape poverty, with significant implications for rural well-being and social and political stability. Off-farm opportunities in food value chains and supporting services can provide attractive options for youth to engage in entrepreneurial activity that use their interest in digital technologies and offer the potential for a decent income.

### **Nutrition: Realizing a double dividend for rural people**

The world is facing a triple-burden nutrition crisis (Willet et al., 2019; FAO et al., 2020; GLOPAN, 2020). Continuing undernutrition, escalating overnutrition and high micronutrient deficiency can be resolved only if people produce and consume a more diverse and nutrient-dense diet. An ambitious focus on improving the nutrition of both rural and urban populations has a potential double dividend for rural livelihoods. Producing greater volumes of higher value fruits, vegetables and protein can drive growth in the rural food economy. In turn, this can contribute to rural households being able to access and afford more nutritious food – improving their health, productivity and quality of life.

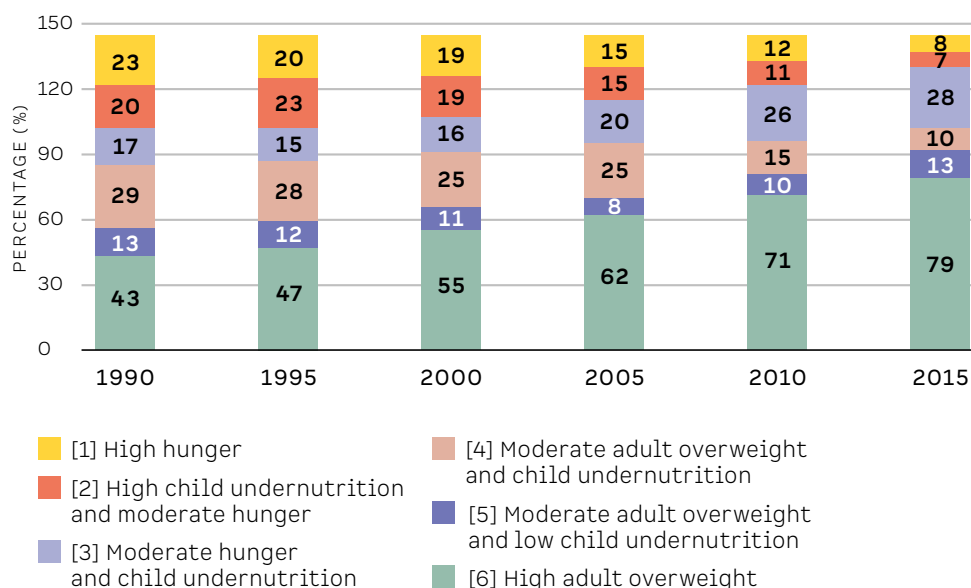
Hunger and food insecurity are on the rise for poor rural people. Following decades of decline, the number of hungry people is up 181 million in the last six years to a total of up to 811 million (FAO et al., 2021). COVID-19 is predicted to push a further 100 million into poverty and hunger and reverse progress on the Sustainable Development Goals (World Bank, 2020a). Critically, more than 3 billion people, mainly in Africa and Asia, are unable to afford a healthy diet (GLOPAN, 2020; Herforth et al., 2020).

Rural and urban diets are changing substantially. Over the last 25 years, a substantial reduction in hunger and undernutrition has been accompanied by a dramatic increase in overnutrition and obesity (**FIGURE 5**). For many low-income countries, overnutrition is not yet a dominant trend in rural areas, however child stunting often remains high. The challenge is to continue reducing undernutrition without flipping to overnutrition.

Better nutrition and improved livelihoods are interlinked. Demand for more diverse and nutrient-dense diets can create new business opportunities for small-scale agrifood entrepreneurs (GLOPAN, 2020). Producing nutrient-dense foods increases income per hectare and could lead to growing numbers of small enterprises capturing opportunities in processing, storing and retailing a wider variety of high-quality nutritious food products targeting various customer segments. But high-value perishables require quality, safety, traceability and reliable deliveries, which can create barriers for small-scale producers.



**FIGURE 5** UNDERNUTRITION UP – OVERNUTRITION ALSO UP



Source: Food Security Portal (<https://www.foodsecurityportal.org/node/62>).

### Environment: Creating value by feeding the world within planetary boundaries

The way food is currently produced contributes massively to environmental degradation and climate change (Springman et al., 2018; Willett et al., 2019; Dasgupta, 2021; Duku et al., 2021). Profound changes in the types of food produced, production practices and patterns of land use will be needed to feed the world within planetary boundaries. This shift presents substantial opportunities and risks for equitable rural livelihoods. Premiums for sustainably produced food or payments for ecosystem services and carbon sequestration can open up new economic opportunities. But the investments, technologies and management skills required may exclude less educated and poorer people. Another risk is that the costs of improving environmental performance will be pushed onto producers, rather than consumers paying the true environmental costs of their food, thus adding to the difficulty that farmers and rural communities experience in receiving an equitable share of value from the food economy.

Small-scale farmers are part of the solution in reducing the environmental footprint of food production. At least 30 per cent of global farmland is managed by small-scale farmers with less than 20 hectares, and in low- and middle-income countries the share is much higher.

## Pathways to an inclusive agrifood economy for the next generation

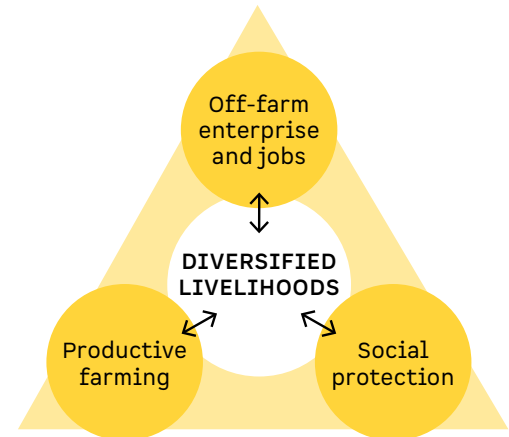
Just as feeding the world well requires more diverse and nutritious diets, tackling rural poverty requires more diverse livelihoods. The pathways of productive farming, off-farm enterprise and jobs, and social protection must reinforce each other to provide equitable rural livelihoods. Farming will remain vital. But for many of the next generation of rural women and men, opportunities will come from branching out from primary production into the midstream of food processing, distribution and retail, as well as finance, equipment and other supporting services. To support their transition to new livelihood opportunities and to protect those stuck in poverty or hit by crisis, social protection will also be critical.

Equitable rural livelihoods will require creating and capturing more value from the food system for the rural economy. Three trends suggest great potential for value creation from the food system in rural communities. First is substantially increasing the production of nutrient-dense and diverse foods, in particular fruits and vegetables, that have higher monetary value than staple crops (GLOPAN, 2020). Second is rapid urbanization in low- and middle-income countries, which increases access to markets and demand for high-value niche food products and services. Third is growing acceptance that society must pay for ecosystem and carbon sequestration services, creating potential income streams for those preserving and caring for land, water and biodiversity (Willet et al., 2017; Blended Finance, 2019; Lipper et al., 2021).

Even if a relatively small proportion of these new economic opportunities can be created and captured by rural communities, it can make a big difference in tackling poverty and inequality. The potential for new income opportunities is especially strong in the midstream of food systems.

Entrepreneurship by small-scale producers and enterprises is key to an inclusive rural agrifood economy. Food systems are largely a private activity. They function, evolve and adapt through the entrepreneurial activities of small-scale producers, the vast network of microenterprises and SMEs, and the larger domestic and international firms.

The opportunities and constraints in creating equitable rural livelihoods are heavily influenced by the country context (IFAD, 2016). A country's income status, the role of agriculture in the economy, dominances of different food system types, employment in the agriculture and food sectors, and the financial and administrative capacity of governments all combine to shape pathways for diversified livelihoods (**TABLE 2** and **FIGURE 6**).

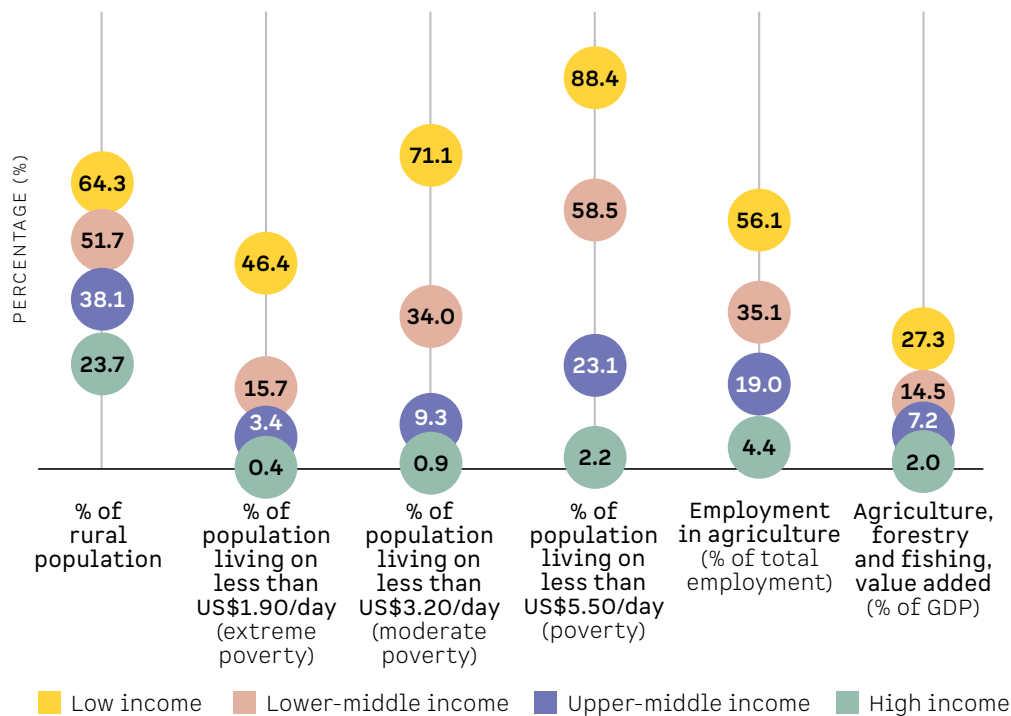


Pathways for an inclusive agrifood economy

**TABLE 2 COUNTRY CONTEXT SHAPES IMPLICATIONS FOR EQUITABLE RURAL LIVELIHOODS**

COUNTRY TYPE	KEY FEATURES OF RURAL POVERTY AND LIVELIHOODS	DOMINANT FOOD SYSTEM TYPES	POLICY ENTRY POINTS/ OPPORTUNITIES FOR EQUITABLE RURAL LIVELIHOODS
Low-income	<ul style="list-style-type: none"> <li>- High extreme poverty and malnutrition.</li> <li>- Economy dominated by agriculture, with slow development of other sectors.</li> <li>- Agriculture remains dominant employer.</li> <li>- High youth unemployment.</li> <li>- Limited opportunities for livelihood diversification.</li> <li>- Food insecurity may be high.</li> </ul>	<ul style="list-style-type: none"> <li>- Traditional systems still heavily present, but with diversifying systems emerging, driven by urbanization.</li> <li>- Restricted urban wealth not yet leading to substantial increases in high-value food demands.</li> <li>- Limited penetration of supermarkets, mostly catering to elite urban consumers.</li> </ul>	<ul style="list-style-type: none"> <li>- Agriculture remains critical to overall economy and rural development.</li> <li>- Constrained capacity of state to invest in rural development, including capacity development, infrastructure, technology and social protection.</li> </ul>
Lower-middle-income	<ul style="list-style-type: none"> <li>- Extreme poverty is being significantly reduced but substantial moderate poverty and rural inequality continue.</li> <li>- Rapid urbanization and increasing urban wealth, driving diversified livelihood options.</li> <li>- Growing opportunities for livelihood diversification.</li> <li>- Food insecurity significantly reduced, but undernutrition still present, combined with micronutrient deficiency.</li> </ul>	<ul style="list-style-type: none"> <li>- Rapid shift to diversifying food system, while traditional systems still common in rural areas.</li> <li>- Modern systems expanding and present in some rural areas.</li> <li>- Urban wealth has significant impact on types of food demand.</li> </ul>	<ul style="list-style-type: none"> <li>- Diversifying economy makes agriculture less important for GDP, but levels of employment still high in agriculture and food sectors.</li> <li>- Opportunities to diversify in the peri-urban space.</li> <li>- Increased but still constrained capacity of state to invest in rural development, particularly in countries with large poor rural populations.</li> <li>- Increased and easier access to agricultural markets.</li> </ul>
Upper-middle-income	<ul style="list-style-type: none"> <li>- Extreme poverty and hunger rapidly declining or largely non-existent, but rural inequality still significant.</li> <li>- Some marginal groups and areas not benefiting from wider economic development.</li> <li>- Significant opportunities for livelihood diversification.</li> <li>- Limited food insecurity, but increasing overnutrition and obesity.</li> </ul>	<ul style="list-style-type: none"> <li>- Diversified food system advances rapidly and coexists with increased prevalence of consolidated food systems.</li> <li>- Pockets of traditional systems in rural areas.</li> </ul>	<ul style="list-style-type: none"> <li>- Increasingly diversified economy with agriculture dropping in GDP and much lower agricultural employment.</li> <li>- Countries have significant resources to support rural development. Food imports from other countries may become significant.</li> </ul>
High-income (Organisation for Economic Co-operation and Development)	<ul style="list-style-type: none"> <li>- Some rural inequality still present.</li> <li>- Obesity and poor nutritional quality diets become major issues.</li> </ul>	<ul style="list-style-type: none"> <li>- Transformed food systems completely dominate.</li> <li>- Niche traditional/diversifying systems are attractive to some consumers and localized markets.</li> </ul>	<ul style="list-style-type: none"> <li>- Imports from low- and middle-income countries provide development opportunities.</li> <li>- Subsidies and tariffs have significant effects on the food economy in low- and middle-income countries.</li> <li>- Official development assistance contributions are important for food system development.</li> </ul>
Fragile states and areas of conflict	<ul style="list-style-type: none"> <li>- High extreme poverty, malnutrition, food insecurity and vulnerability.</li> <li>- Economy generally dominated by agriculture.</li> <li>- Limited capacity of state to support development.</li> </ul>	<ul style="list-style-type: none"> <li>- Traditional food systems remain important, combined with diversifying systems depending on country and type of fragility.</li> <li>- Humanitarian and food aid can have significant implications for food systems.</li> </ul>	<ul style="list-style-type: none"> <li>- Humanitarian aid is needed, and social protection programmes are crucial.</li> </ul>

**FIGURE 6** FOOD SYSTEMS VARY SUBSTANTIALLY BY COUNTRY INCOME, SHAPING THE OPPORTUNITIES AND CONSTRAINTS FOR DIVERSIFIED RURAL LIVELIHOODS



Note: Covers 152 countries with 7.3 billion people.

Source: World Bank, 2020b, and PovcalNet (<http://iresearch.worldbank.org/PovcalNet/povDuplicateWB.aspx>).

### Diversified rural livelihoods

Rural people's livelihoods have diversified rapidly in recent decades. While most rural households still farm, many now combine farming with other sources of income to meet their needs. This diversification includes labouring on other farms, operating a wide variety of SMEs in the agrifood sector or wider economy, salaried employment and remittances from family members who have migrated to urban areas or abroad. Poorer households may also benefit from social protection. Many small-scale farmers are actually rural householders who also farm alongside their other non-farm income earning activities. The most marginalized – including female-headed households, youth, and indigenous peoples – are often landless and depend entirely on non-farm income. A study based on 13 low- and middle-income countries across different regions (Dolislager et al., 2019 and 2020) shows that farming accounts for no more than half of people's labour (**FIGURE 7**). It also shows that, while 70-80 per cent of rural Africans engage in farming in some way, this accounts for only 41 per cent of their working time. Despite this diversification, with farming complemented by off-farm activities, small-scale agriculture remains a cornerstone of rural livelihoods. Large household surveys across multiple countries also show substantial income diversification and the continued importance of agriculture (see the data annex).

**FIGURE 7 ESTIMATED TIME ALLOCATION BY LABOUR CATEGORY IN RURAL AREAS**



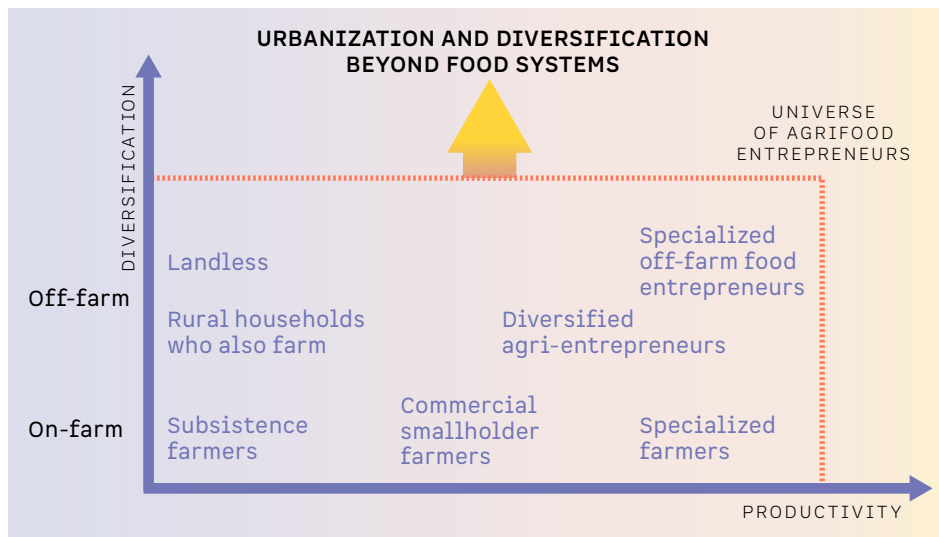
*Note:* Agrifood system employment is all food system activities other than on-farm production. The figures are population-weighted estimates from household surveys in 13 countries: Bangladesh, Cambodia, Ethiopia, Indonesia, Malawi, Mexico, Nepal, Nicaragua, Niger, Nigeria, Peru, Tanzania and Uganda.

*Source:* Authors' elaboration based on Dolislager et al., 2019, 2020.

A better understanding of patterns and types of livelihood diversification can guide policies aimed at improving rural well-being. Rural people can diversify into different types of jobs and enterprises, and they can specialize as farmers, as rural entrepreneurs or in full-time employment (**FIGURE 8**). A growing number of diversified agroentrepreneurs combine on- and off-farm enterprise opportunities in processing, packaging, distribution and even direct marketing to consumers. Realizing synergies between on- and off-farm livelihood opportunities is a key feature of inclusive food system transformation. It calls for new, broader and more integrated approaches to rural development (FAO, 2017; IFPRI, 2020).

Diversified livelihoods help, but they do not guarantee a living income. Off-farm labouring on other farms or in the agrifood midstream often commands very low wages. With the informal sector dominant, poor labour conditions and exploitation are common. The profits from microenterprises are often small, and women and men operators may be exploited by larger enterprises that have more market power. Households often diversify simply to survive and may be working long hours in different jobs and enterprises and still not meeting all their basic needs. Much needs to be done to ensure that those working in the off-farm agrifood sector get a fair deal.

**FIGURE 8** PATTERNS OF LIVELIHOOD DIVERSIFICATION AND INTENSIFICATION



Household diversity and livelihood options intersect. Rural households have vastly different access to financial, physical, social, human and natural capital. They also vary greatly in gender dynamics, proportion of household members of different ages and gender, and ethnic and religious background (Doss, 2018). Households live in varied contexts that provide more or fewer livelihood opportunities depending on distance from markets and urban centres, access to infrastructure and services, and the productive potential of land and water resources. Increasingly, the extreme rural poor live in fragile states or conflict-affected areas where government services are negligible and the rule of law is weak. This diversity in contexts dramatically determines their livelihood options and their capacity to take up the opportunities that do exist.

For an increasing number of households, remittances from family members who have moved to urban or even overseas employment enable them to finance new enterprises. Even when households are earning most or all of their income off the farm, it is common for them to maintain ownership of land for security. Sometimes they will rent their land to those who need more land to become commercially viable. In some areas, this is leading to rapidly growing formal and informal land rental markets.

Support mechanisms are needed for those transitioning from farming to other livelihood options. These include appropriate education and skills training, financial and business support for establishing successful enterprises, enabling more flexible use of land, and schemes to reduce the risk that entrepreneurship entails. Social protection and subsidy schemes, along with secure tenure arrangements for rural people, need to support a just transition and avoid locking people into a farming poverty trap.

## Off-farm enterprise: Realizing the potential of the agrifood midstream

Equitable rural livelihoods of the future will depend heavily on the food system midstream to provide diversified employment and enterprise options, to better connect farmers to input and output markets, and to add value to farm produce. Refocused rural development strategies and policies will be required to optimize this potential (Swinnen and Kuijper, 2020).

The midstream of the agrifood sector, dominated by SMEs, has grown rapidly. The last several decades have seen a quiet revolution in the agricultural and food markets of low- and middle-income countries, with a rapid growth in value (Reardon, Liverpool-Tasie and Minten, 2020; Vos and Cattaneo, 2020). The volume and value of food products transported from rural to urban areas has increased in the order of 1,000 per cent. The emergence of a vast number of microenterprises and SMEs in the midstream has created many new employment opportunities.

Enabling and supporting SME entrepreneurship in the midstream is essential for creating inclusive opportunities. Farmers depend heavily on SMEs for their input and output markets (Reardon, Liverpool-Tasie and Minten, 2020). A study by Dolislager et al. (2020) shows that on average midstream employment accounts for 25 per cent of rural employment, compared with 29 per cent for own farming, and that the midstream is more important for women's employment than men's. Developing the entrepreneurial skills of rural people, particularly youth, can ensure equality of opportunity in the midstream sector.

To date, most of the midstream in low- and lower-middle-income countries is part of the informal economy. It has been highly successful in keeping urban centres supplied and creating much employment and economic activity. But fragmentation and poor quality standards mean that the full potential for creating and capturing value from food markets is not being realized. The spread of benefits across rural areas and households is also very uneven, with some benefiting tremendously and others hardly at all, or even being adversely affected.

Policymakers can support this transition in four ways. The first is through upgrading entire value chain processes to improve efficiency and profitability. Only then can greater value be created, waste be reduced, and food quality and safety demands be met. The second is through policies to embed responsible investment principles and practices related to labour conditions, gender equality, the environment and climate. The third is by maintaining opportunities for large numbers of smaller-scale entrepreneurs and enterprises, and avoiding the concentration of power and ownership that seeks efficiency through reduced labour while actually withdrawing profits from rural economies. The fourth is by stepping up skill-building and accessible finance and business support so that rural people can take up entrepreneurial opportunities.

As with the midstream employment and enterprise opportunities so vital for women, gender inequalities need to be seriously addressed. Despite the opportunities for women along food value chains, women face discrimination, inequality and insecurity (Rubin, Boonabaan and Manfre, 2019). Their time poverty due to gender norms on care hinders many from taking up economic empowerment opportunities. But there are many practical ways to make a difference: infrastructure (health, childcare, water) to reduce their time poverty, access to banking and digital services, support groups for saving and enterprise development, land tenure rights, appointments to decision-making bodies at all levels – and engagement in economic decisions in the household, ensuring physical security and appropriate amenities in markets, and providing girls' education. Good examples of these measures are being put into practice, often with inspirational results. But a vast challenge remains to dramatically scale up such work and see educational parity translated into wage equality.

Policies and investments must foster entrepreneurship, create supportive conditions and promote inclusive access to opportunities. Ongoing and rapid evolution of the midstream will continue apace for the foreseeable future, driven by market demands and technological developments. But to what degree will it support or diverge from the goals of a food system transformation for better nutrition, sustainability and equitable livelihoods? Realizing the midstream's potential will require substantial policy innovation and refocused development investments. Public investment for the rural sector needs to balance support for agriculture with support that optimizes the potential of the midstream to reduce poverty and inequality.

### **Productive farming: A just transition for small-scale agriculture**

With about 525 million small-scale farms of less than 20 hectares (Lowder et al., 2019), 2-3 billion people, or about 60 per cent of the rural population, live in households that farm. A viable and productive small-scale farming sector with strong market connections is a critical foundation for more inclusive rural economic and livelihood development, as well as being the basis for a thriving midstream of food systems (AGRA, 2017; IFPRI, 2020).

Creating the conditions for small-scale farmers to commercialize is a critical policy priority. Small-scale farmers need better access to inputs, services, finance, markets and infrastructure (Meemken, 2020; Ogutu, Ochieng and Qaim, 2020). There is also a need to reduce transaction costs and increase productivity and profitability so that small-scale farmers can be competitive and take the risk of responding to new opportunities. Without such support, opportunities are more easily taken up by better endowed and larger-scale farmers (Jayne et al., 2019). However, policymakers must also be realistic about what proportion of small-scale farmers – given land sizes, types of farming and markets – can commercialize in ways that would give them a decent living from just farming. In many areas, this may be a minority of farmers.



Small-scale agriculture may produce as much as 70 per cent of the food consumed in a low- or middle-income country.<sup>1</sup> Many of the world's smallest farms are surprisingly productive (**TABLE 3** and **FIGURE 9**<sup>2</sup>). There are 374 million farms (70.4 per cent of all farms globally) of less than 1 hectare, and many are much smaller still. These farms operate less than 7 per cent of the world's farmland but contribute 15 per cent of the world's calories. However, for some farmers growing staple crops – or even traditional cash crops such as coffee and cocoa – on these small areas of land, with often poor market prices, it may be extremely difficult to make a living income from farming alone. Even so, the food that this larger group of very small-scale farmers produces is critical for their own food and nutrition security, and for localized markets.

**TABLE 3** INDICATIVE CHARACTERISTICS OF FARM NUMBERS, AREA FARMED AND FOOD PRODUCTION RELATED TO FARM SIZE

SCALE	FARM SIZE DISTRIBUTION <sup>a</sup>					GLOBAL FOOD PRODUCTION TYPE BY WEIGHT (%) <sup>b</sup>										TYPE <sup>e</sup>
	FARM SIZE (HA)	% FARMS	NO. FARMS (MILLION)	% FARMLAND <sup>c</sup>	% GLOBAL PRODUCTION (KCAL) <sup>d</sup>	CEREALS	VEGETABLES	FRUIT	SUGAR CROPS	ROOTS/TUBERS	OIL CROPS	PULSES	LIVESTOCK	AVERAGE		
Large	>200	0.2	1	57.0	18	18	11	18	35	9	39	18	18	21	Corporate (10%) Family (90%)	
	50-200	0.4	2	12.8	19	22	19	17	14	15	25	18	23	19		
Medium	20-50	0.7	4	4.6	4	8	9	10	9	8	6	8	10	9		
	5-20	4.3	23	8.8	14	31	33	34	30	38	19	37	31	32		
	2-5	10.4	55	6.1	14	21	28	21	13	30	11	19	18	20		
Small	1-2	13.8	73	4.0	16											
	<1	70.4	374	6.7	15											

<sup>a</sup> Data from Lowder et al. (2019), table A2 – estimates based on 129 countries.

<sup>b</sup> Data from Herrero et al. (2017), values estimated from figure 1 – based on 161 countries.

<sup>c</sup> Data from Lowder et al. (2019) show that farms of < 2 ha use around 11% of farmland while Ricciardi et al. (2018) estimate this to be about 24%.

<sup>d</sup> Data from Ricciardi et al. (2018), values estimated from figure 2H – based on 55 countries.

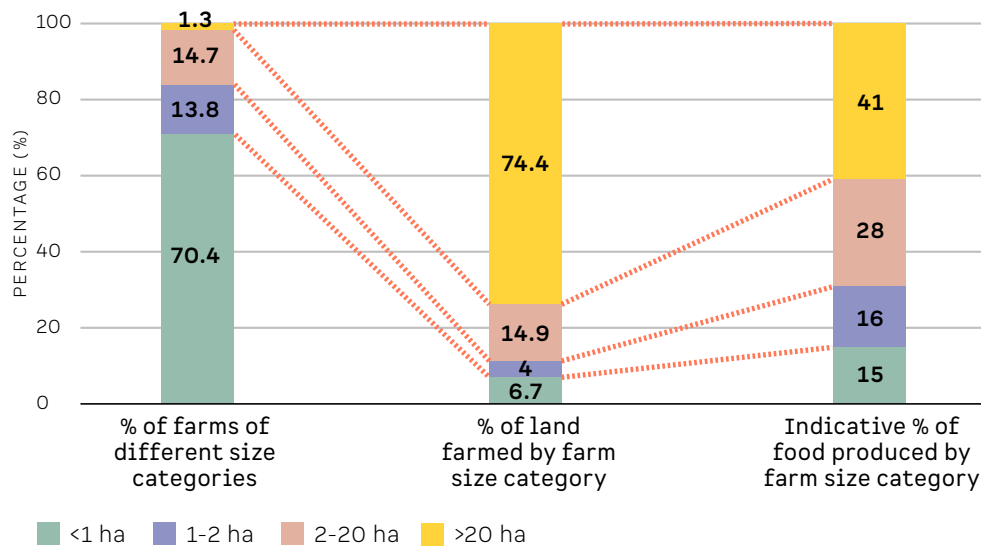
<sup>e</sup> Data from Lowder et al. (2019).

Source: Woodhill et al. (2021), modified from Woodhill et al. (2020), based on data from Lowder et al. (2019), Ricciardi et al. (2018) and Herrero et al. (2017).

<sup>1</sup> That small-scale farmers produce 70 per cent of the world's food (or of food consumed in low- and middle-income countries) is an often used statistic, but it appears to have no factual basis (Glover, 2014). Ricciardi et al. (2018) estimate that farmers with less than 2 hectares produce 30-34 per cent of global food. If production from 2-20 hectares farms is included, and the focus is on low- and middle-income countries, it is plausible that small-scale farmers may produce 50-70 per cent of food consumed in these countries.

<sup>2</sup> Data presented in table 3 and figure 9 are estimates from the cited sources, which use different estimation methods. Most countries lack recent and detailed data. Global averages hide significant national and regional variations.

**FIGURE 9** INDICATIVE RELATIONSHIPS BETWEEN FARM SIZE CATEGORY, AREAS OF LAND FARMED AND FOOD PRODUCTION



Source: Lowder et al. (2019) and Ricciardi et al. (2018) compiled in table 3.

In areas of population growth, high population density and limited land resources, it is impossible to keep dividing land with each new generation and still assume that farming can offer a decent living. Difficult issues of land tenure and land consolidation will have to be tackled in ways that are just and equitable. Already, the top 10 per cent of rural populations across a sample of countries captures 60 per cent of the agricultural land value, while the bottom 50 per cent of rural populations captures only 3 per cent of the land value (Bauluz, Govind and Novokmet, 2020). At the same time, good practices in enabling youth to access land have been documented and it is important that approaches to rural development identify where the next generation of farmers is going to come from (IFAD, 2021).

In many areas and for the foreseeable future, a significant group of rural households will be “hanging on”, still heavily dependent for their income and food security on what little land they do have (Dorward et al., 2009). However, large numbers of people gleaning a marginal existence from farming is neither just nor equitable. Nor should it be assumed that all small-scale farmers want to remain farmers or see farming as a future for their children.

A just transition for small-scale agriculture will require maximizing opportunities for commercialization, enabling productive farming as part of a mixed livelihood and providing support for those who transition out of agriculture.

Livelihood diversification and off-farm income change the incentives for farmers. If farming households have diverse incomes, what becomes important is not total farm income but the return on farm labour relative

to other income-earning activities and how farming fits within diversified livelihoods. Having a very small plot of land is not necessarily a problem if it complements other sources of income, provided it gives a worthwhile return on labour. However, less dependence on farm income, or receiving very marginal returns, can be a disincentive to adopt productivity-increasing measures. This can create a negative spiral of low returns and low interest in farming. Across many farmers, this affects a country's overall food production.

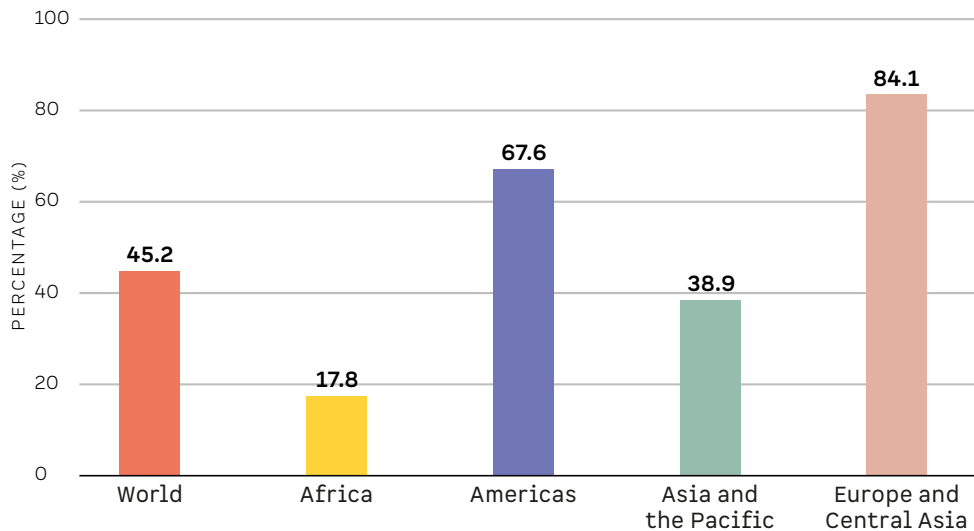
Yet farming can make a vital contribution to household livelihoods, even if not fully commercial (Frelat et al., 2016). When households have off-farm sources of income, it can become more economically rational for them to produce food for their own consumption, enabling them to reduce food expenditures, increase cash availability for other expenses and improve household nutrition. For very poor households that predominantly depend on producing their own food and on semi-commercial production for local markets, even small increases in farm productivity and income can keep families from going hungry and able to afford health and education costs.

For all these reasons, food system transformations need to take a broader look at the current and potential contribution of small-scale farming to rural people's overall livelihood. Support needs to be provided in a balanced way for commercialized small-scale agriculture, to improve semi-commercial farming and to enhance food production for self-consumption.

### **Social protection: Ensuring that people are not left behind**

Even the best efforts to create more inclusive economic opportunities in the food system and wider rural economy will not lift everyone out of poverty. National governments and the international community must come to terms with the large numbers of rural people who are marginalized and vulnerable, and whose livelihoods will be hard to improve through wider economic progress alone. They include people living in conflict-affected areas and fragile states, or in marginal areas with poor resources and infrastructure. They also include some excluded and disadvantaged religious minorities, ethnic groups, indigenous peoples, and people living with disabilities. There is strong evidence that social protection is critical in lifting people out of extreme poverty (FAO, 2017; ILO, 2019), yet few people in low- and middle-income countries have access to adequate social protection (ILO, 2019) (**FIGURE 10**).

**FIGURE 10** THE SMALL PROPORTION OF POPULATION COVERED BY AT LEAST ONE SOCIAL PROTECTION BENEFIT



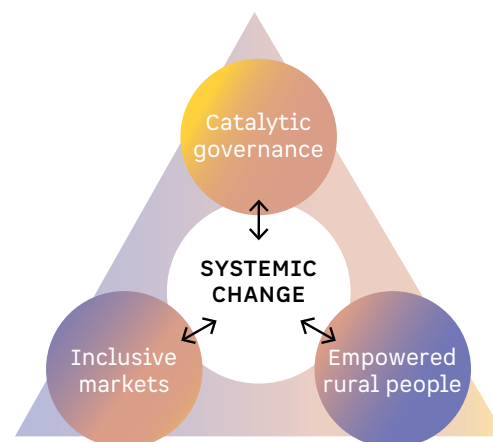
Source: ILO, 2017.

Innovative and productive forms of social protection that build resilience can be strengthened (FAO, 2017; IFPRI, 2020). Creating economic opportunities and viable livelihoods for those who are extremely marginalized due to geographic location or personal circumstance is undeniably difficult, but not impossible. Food is essential in all contexts, so food production and distribution always provide some opportunities for economic and market activity. More entrepreneurial approaches – such as the World Food Programme initiative on smallholder market support – can work for groups hitherto excluded from food-related economic activity. Such innovation has three benefits. First, linking public social protection investments to entrepreneurial and economic activity can improve the impact of limited public resources. Second, engaging in work through entrepreneurship offers people dignity, self-respect and independence. Third, such approaches can build household and community resilience.

Scaling up innovative and effective social protection schemes needs to be an integral part of the food system transformation agenda. Comprehensive approaches to social protection can work to protect those in poverty or crisis and prevent people from falling deeper into poverty. Approaches need to support the development of livelihood opportunities to ensure that poor and excluded groups have social and economic rights. Increased investments in social protection are clearly needed, but just as importantly, much more can be done to link social protection policies more effectively with policies to support diversified rural livelihoods (FAO, 2015).

# Foundations for change so rural people prosper

The well-being of rural women and men is inextricably connected with how the entire food system functions, from the local to the global level. In turn, the food system is driven by a wider set of demographic changes, political economic conditions and consumer choices. Rural poverty, hunger and inequality cannot be overcome without bringing about systemic change in these wider conditions. Three foundations for change need to align: food system governance, inclusive markets that incentivize desired food system outcomes and empowered rural people.



## Aligning the foundations for change

### The need for systemic change

The required changes are far-reaching. The global agenda for transforming food systems can help us to rethink pathways out of rural poverty and inequality.

Systemic change will be needed to reshape the deeper structural economic, political and cultural factors that inhibit the creation of equitable livelihoods for rural people and healthy and sustainable food systems. Transforming food systems will challenge established assumptions, mindsets, procedures, political and economic interests, and power relations. Deep policy reform and substantial investment will be needed. Such change can happen only with extraordinary collaboration, coordination and communication across sectors, and across government, business, civil society, rural people's organizations and the scientific community.

Opportunities for rapid progress abound. Much knowledge exists about what has worked, and why, from countries that have reduced poverty, hunger and malnutrition, including Brazil, China and Ethiopia. One economic driver is the growing demand for safe, nutritious, convenient and sustainably produced food. Over the last decade, frameworks for responsible investment have been developed, with many private firms far more conscious and proactive about social and environmental responsibilities. A tremendous amount has been learned about creating sustainable and equitable value chains and about market approaches to tackling poverty. The critical need for women's and girls' empowerment has been unambiguously established, with numerous initiatives showing progress. The widespread uptake of mobile phones in remote areas offers the prospect of putting information and banking services at the fingertips of all rural people. There is extensive collaboration between scientific institutions to work on the core challenges of food system change. The experience from a wide range of existing social protection mechanisms provides a foundation to build on.

Optimizing the potential of digital and frontier technologies can support system change. Technology offers much potential to transform food systems – opening up inclusive market opportunities, providing rural services and enabling climate-smart production (Deichmann, Goyal and Mishra, 2016; Torero, 2019; Ceccarelli et al., 2020). Rapid technological developments in Asia, East Africa and Latin America have started to level the playing field for small-scale entrepreneurs. Progress has been significant in digitally enabled rural financial services, for example. But progress is uneven across regions, due to gender inequalities. Women continue to have less access to digital technologies, hindered by gender norms, lack of digital literacy and financial inequalities. For instance, many East African countries are years ahead of West and Central African countries in mobile coverage and digital uptake. Inclusive public policies and investments will be essential to bring the full potential of the digital and technological revolution to bear on rural food systems and rural entrepreneurship in all areas.

### **Catalytic governance to mobilize engagement and drive change**

**Engaging a wide constituency and building momentum.** Ultimately, a failure of food systems is a failure of governance. Power relations and vested interests have locked in today's institutional arrangements, policy priorities and incentive mechanisms (Leeuwis, Boogaard and Atta-Krah, 2021). National governments play a central role as drivers and implementers of change. However, action generally needs to be implemented at a local level by a broad range of actors. At the same time, what is possible for a national government is constrained by global markets and geopolitical considerations. To catalyse change, measures in the public and private sectors need to coalesce around a shared vision underpinned by societal understanding and political commitment for action, and the voices of poor and vulnerable rural people must be heard at the table (AGRA, 2018).

A key to building momentum for systemic change is to start where there is a powerful need and a demonstrated demand for action.

History has shown that space for rapid change is often opened up by a crisis that affects large numbers and makes the status quo untenable, be it financial collapse, natural disaster, conflict or an outbreak of disease. A possible silver lining of the current climate and COVID-19 crises is the strong impetus for change that they are triggering. But the narrative for food systems change must be framed by issues and goals that stakeholders recognize and care about and in language they can relate to. A key to building momentum for systemic change is to show progress, to start where there is a powerful need and a demonstrated demand for action.

**Setting direction together with a systems mindset.** Any journey requires knowledge of the destination and a road map for getting there. So it is with transforming food systems. Governments, businesses, science and civil society need to collaborate on setting directions and taking actions. Over the last two years, the Food Systems Dialogues initiative has brought together

leaders from government, business, civil society, producer organizations and science. Numerous national dialogues have built momentum that will be furthered by the United Nations Food Systems Summit. Transforming food systems requires various parts of the government to work together, including ministries of agriculture, health, environment, social welfare, trade and industry, and finance. This can happen through strong leadership from the top and through interministerial working groups to collectively address trade-offs and synergies.

**Food systems are complex, adaptive systems.** To intervene in them calls for forms of policymaking that are adaptive, consultative and rooted in the principles of how complex systems behave, rather than assuming hierarchical and linear modes of control. Since change is always difficult, it is imperative to start making changes where there is a powerful need and a demonstrated demand for change. A concept like food system transformation appeals to professionals, but is unlikely to drive organizations and people to change the way they behave. The change narrative must be framed by issues and goals that resonate with stakeholders, and that can provide a basis for brokering synergies and trade-offs between the interests of different groups. People are always apprehensive about change, even though the consequences of maintaining the status quo may be far worse. When it involves something as sensitive as food and livelihoods, communication becomes a central element in any change process.

**Tackling political economic barriers.** Food system transformation needs to be driven by a strong, capable and committed public sector. But national governments are constrained by political economic factors including global markets, geopolitical considerations, domestic political influences, the interests of elites and the way citizens see the issues. Limited capacities within the public sector and corruption can combine to make investment and doing business in the agrifood sector difficult (World Bank, 2020a). Overcoming these interferences will have to start with easy wins and gradually make progress on the underlying structural constraints to change. What matters is identifying improvements that can actually be implemented, and implementing them consistently. Positive change can come through an almost unnoticed series of small changes as often as through large-scale and dramatic advances that are instantly noticeable.

Governments of low-income countries with an agricultural economy have a particularly challenging task, as they face difficult trade-offs to balance livelihood, nutrition and environmental outcomes with limited public resources – amid high levels of extreme and moderate poverty. The risk is stagnation in a low-level equilibrium. Lower-middle-income countries with a diversifying economy are going through rapid transformation in which stakeholder relationships are evolving. The challenge for their governments lies in maintaining and equally distributing the gains of ongoing transformation through inclusive policy mechanisms. Upper-middle-income countries have the scope to invest substantially in rural areas to largely eliminate extreme poverty and dramatically reduce rural inequality.

**Using evidence to guide action and demonstrate progress.** Good governance and effective policymaking need to be informed by evidence – with up-to-date, real-time data. Many countries lack basic information on what is happening for rural people, in relation to their livelihoods, poverty, nutrition, what is happening in the rural economy and what is happening to natural resources. Insufficiently granular and poorly disaggregated, the existing data give insufficient insight into the circumstances of different groups. And data and analysis tend to be focused on sectors – health, agriculture, the environment or the economy – making food system analysis difficult. Strengthening national data, statistical systems and integrated analysis and using the potential of big data and innovative digital technologies requires international collaboration and support. The 50 x 2030 initiative to close the agricultural data gap is an example of a multipartner programme that seeks to build strong national agricultural data systems so that policymakers can make sound decisions to drive their country’s economic growth and reduce poverty.

### **Inclusive markets rooted in local economies**

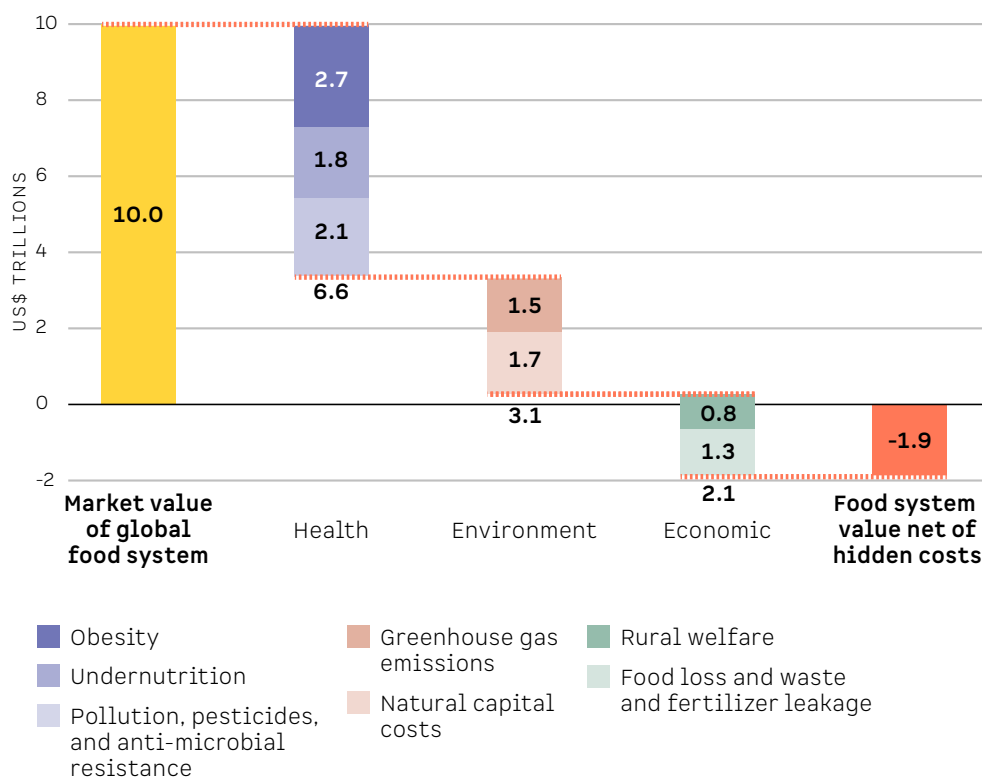
To benefit rural people, food markets need to be accessible on fair terms. Incentives need to be in place that reward shared prosperity, healthy diets and environmental sustainability. A fundamental rethink of the incentive structure that drives food markets and trade should cut across global, national and local scales. A 2019 Food and Land Use Coalition (FOLU) report estimated that the “hidden” environmental, health and economic costs of food production and consumption actually exceed the total market value of the food system (FOLU, 2019; **FIGURE 11**). Rural entrepreneurship in the agrifood economy depends on more than the right incentives and trading conditions. It needs good infrastructure and services, an enabling business environment, and inclusive business and investment practices by larger firms (FAO, 2017; Bellmann, Lee and Hepburn, 2018; Mooney, 2018; López-Cálix, 2020).

**Aligning incentives and trade for desired food system outcomes.** Incentives can steer market actors towards investments and business practices that are in the collective interests of the entire food system (Clapp, 2017). Governments can use regulations, taxation, subsidies and price controls to ensure that market opportunities are not inequitably captured by elites and to correct market externalities (Searchinger, Waite and Ranganathan, 2019;). However, targeted market-based incentives have often led to perverse social, environmental and economic outcomes. The severity of challenges facing food systems calls for much more than tinkering at the edges. Large-scale policy reform coordinated across countries is needed, designed for a transition that is politically feasible, economically fair and socially just.

A key feature of the existing regime of food market incentives is agricultural subsidies, which aim to protect farmer incomes and stimulate agricultural production for domestic food security and export opportunities (OECD, 2020a). These subsidies distort markets, reduce overall economic efficiency, lead to overproduction and create perverse health and environmental outcomes.



**FIGURE 11 THE HIDDEN COSTS IN THE FOOD SYSTEM ARE ESTIMATED TO EXCEED ITS TOTAL MARKET VALUE, 2018 PRICES**



Source: FOLU, 2019.

Subsidies by richer countries for specific commodities have put producers from lower-income countries at a significant competitive disadvantage in both domestic and international markets.

Recent decades have seen substantial reform of agricultural subsidies, particularly by the European Union, to make them less market-distorting. Yet governments still provide more than US\$600 billion per year in agricultural subsidies – 60 times more than total official development assistance support to agriculture and rural development (OECD, 2020a). The subsidies disproportionately target products with high emission intensities, such as rice, milk and meat. In low- and middle-income countries, agricultural subsidies are often geared towards staple food production at the expense of more nutritious vegetables, fruits, beans, eggs and fish (FAO et al., 2020). Lower-income countries have to trade off using limited public resources for agricultural subsidies or for rural infrastructure, education and social protection.

Rural livelihoods are highly influenced by global and regional food trade regimes (Mary, 2019) and the associated framework of trade subsidies, tariffs and non-tariff barriers. While only 15 per cent of food is traded globally, the globalized food market influences prices, returns and competitiveness across

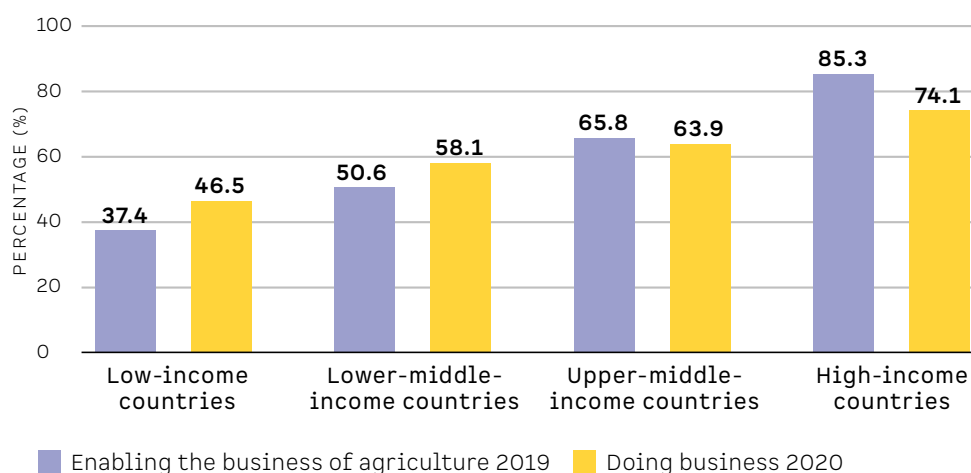
the board (European Commission, 2019). The agricultural trade landscape is in flux, with protectionism on the rise. Tariffs on agricultural products have been at the core of recent US-China trade disputes, which has helped countries in the Association of Southeast Asian Nations (ASEAN) and Latin American countries boost exports of some agricultural products. Regional trade agreements are also on the rise. East and South-East Asian countries are working to deepen regional economic integration through the China-ASEAN free trade agreement and the Regional Comprehensive Economic Partnership agreement between ASEAN and six other countries. The recently established African Continental Free Trade Area is expected to allow African countries to increase exports, better weather economic shocks and improve food security. These shifts in trade regimes will lead to a geographic reallocation of production and other activities along the value chain, and thus create winners and losers.

Improvements in nutrition and the environment might unintentionally set back rural livelihoods as large firms take a larger share of the overall processing sector. The World Trade Organization now recognizes that environmental and health requirements can impede trade and even be used as an excuse for protectionism. By hindering exports, they could cause unwarranted economic and social costs to others, particularly developing countries. SMEs are especially vulnerable. Similarly, SMEs and smallholders are likely to face growing challenges in meeting the food safety and environmental standards set by supermarkets and large processors (AGRA, 2019; Meemken, 2020).

**Ensuring an enabling and inclusive business environment.** An enabling business environment for on-farm and off-farm agrifood enterprises will help people set up and profitably run a viable small-scale food business. It entails a wide range of government regulations and procedures, and adherence to the rule of law: taxation, permits, financial regulations, cooperative law, quality and safety standards, import and export procedures, costs and time spent in adhering to government regulations, tackling corruption, and increasing the degree to which contracts are enforced. These factors have direct and indirect impacts on small-scale producers and entrepreneurs and other businesses with whom smaller-scale operators interact.

World Bank scores for ease of doing business and ease of doing agribusiness show that it is more difficult to do business in low- and middle-income countries (**FIGURE 12**). Business regulations and standards related to food quality and safety, environmental impacts and labour conditions need to be upgraded to add value and meet changing consumer demands – in ways that do not limit opportunities in the informal economy or for smaller-scale operators. Improved regulations and conditions for rural labour, on and off the farm, will be needed to improve incomes. However, such changes need to be managed carefully to avoid excluding people from employment, for example by employees shifting away from labour-intensive and towards capital-intensive production systems.

**FIGURE 12 DOING BUSINESS IS MORE DIFFICULT IN LOW- AND MIDDLE-INCOME COUNTRIES**



Source: World Bank, 2019, 2020a and 2020c.

**Putting in place rural infrastructure and services.** Inadequate rural infrastructure leaves communities isolated, holds back food value chain development, contributes to post-harvest food losses, and is associated with poverty and poor nutrition. Adequate rural infrastructure – including good-quality rural and feeder roads, reliable electricity, marketing and storage facilities, and digital networks – is essential for pro-poor growth and better rural livelihoods. Investments also need to be made in human capacity, with rural people supported to take up new opportunities in, for example, agricultural advisory, financial, business development, health and education services. Investments in infrastructure will create a positive cycle of economic development. The pay-off is often longer-term and so does not deal with the short-term food security and poverty issues that have a highly political influence over government expenditures. International financial institutions can help by providing loans and guarantees with long tenures that can be blended with private financing.

**Strengthening private-sector partnerships for inclusive business operations.** Private investment helps drive a country's overall agrifood sector development. Countries with agricultural and diversifying economies, with high levels of employment in the agriculture and food sectors, need to balance the interests and synergies of larger and smaller enterprises in the agrifood sector through policies that support the competitiveness of the SME sector. Larger-scale domestic and multinational agrifood firms play a critical role in the food system, including as retailers, seed and agrochemical suppliers, processors and financiers. While SMEs dominate the midstream of domestic food processing and distribution in countries with agricultural and diversifying economies, larger firms still have a significant and influential role. As economies transform, considerable concentration occurs in food value chains. Inclusive agrifood markets require a synergistic and complementary

interface between larger firms and smaller enterprises and entrepreneurs. Agricultural inputs are largely dependent on larger firms, which often depend highly on small-scale producers and intermediaries for their supply base.

## **Empowering and equipping rural women and men**

Even if catalytic governance and inclusive markets rooted in local economies are in place, some rural people will still be unable to benefit from potential opportunities. For many, a lack of agency, assets and skills creates too much of a barrier. To ensure that vulnerable and marginalized rural people are not left behind, focused public investments and programmes should create the stepping stones from economic exclusion to economic inclusion.

**Targeting rural poverty reduction.** Governments in low-income countries with largely agricultural economies need to support almost 50 per cent of their populations living in extreme poverty (Bharali et al., 2020; Laborde, Parent and Smaller, 2020). They can do this only with a substantial amount of overseas development aid and by creating conditions for wider economic development. Governments in middle- and upper-middle-income countries must combine targeted support to the few extreme poor (5-7 per cent of the population on average) with broad-based economic development in rural areas to ensure people living in moderate poverty can also improve their livelihoods and are not left behind.

**Using digital opportunities to increase voice and agency.** Building the agency of rural people in food systems requires access to knowledge and financial services, as well greater bargaining power for small-scale producers and agrifood entrepreneurs, facilitated through the digital revolution. Today's rural youth in low- and middle-income countries are the first generation whose entire working lives will be permeated by digital technology. By reducing the cost of information and massively increasing its availability, technology has dramatically sped up the pace and altered the nature of change. The COVID-19 pandemic has further accelerated the digital revolution, but it has also shown that marginalized socio-economic groups are also those with less access to digital services. Such services often are not aligned with their needs, creating further marginalization, so focused government policies and programmes are needed to avoid a digital divide between wealthier and poorer people.

**Creating services to support small-scale rural entrepreneurship.** Broadening donor support for a food systems approach can help the next generation of small agrifood entrepreneurs by providing them with the necessary education and access to financial and advisory services. To date, governments and international agencies have often focused rural development investments on supporting small-scale agriculture and on increasing agricultural productivity. In a rapidly transforming global food system, it will be critical to increase support for livelihoods in off-farm agrifood businesses. Not doing so risks locking the next generation into a context of farming in which it will be virtually impossible to escape poverty.

Business support networks, which complement farmers' organizations, can further participation of small-scale entrepreneurs, especially women, and influence policymaking. Uniting small enterprises active in food processing, distribution and retail in agrifood organizations can increase their bargaining power and reduce high transaction costs that prevent larger players from doing business with them. Such networks can also provide economic services to their members, including access to finance, market information, skills development and transportation to larger markets.

Reconfiguring and expanding rural financial services is essential for the transition to inclusive food systems. Governments and private entities can establish and finance support structures that enable rural women and men to develop the business, financial and technical skills to identify opportunities, undertake business planning and manage business operations. The near universal presence of mobile phones and digital services in rural areas provides new entry points for rural people to access financial services. The management and governance capacity of established financial institutions can be linked with the local know-how and agility of informal and semi-formal financial service providers, such as savings and credit cooperatives, village banks or informal savings groups. Such partnerships can help break the barriers to growth that innovative rural finance initiatives have faced in recent years. New forms of agrifood enterprise require new financial instruments, including climate insurance and blended finance.

Providing knowledge and information services through digitally enabled tools or services has been shown to be more cost-effective than many traditional extension organizations and programmes. In-person extension services with on-the-field approaches, such as demonstration plots, group training and farm visits, are expensive, severely restricting access and reach. Digital knowledge services to empower farmers and off-farm entrepreneurs include advisory and information services, market linkages, supply chain management, financial services and macroagricultural intelligence. Digitization can better connect buyers, sellers and producers, including through digital marketplaces and end-to-end supply chain management solutions.

**Investing in a new generation of agrifood education, skills and capabilities.** The next generation of rural women and men need capacities and skills very different from those of their parents. Old-style vocational programmes will not prepare them for new economic opportunities. The pace of change in education will need to be in step with the pace and nature of transformation in a country's food system. The nature of work is changing fast and creating demand for new sets of skills related to food transport and processing, support services, and nutrition and environmental services.

The next generation of rural women and men need capacities and skills very different from those of their parents.

The new digital era puts new demands on rural people. Evidence on soft skills is emerging in both wage employment and self-employment and in the establishment of microenterprises in rural and other areas in developing

countries. Educational institutions have to teach not only basic technical digital skills but also advanced cognitive and non-cognitive skills to enable those they teach to become successful agrifood entrepreneurs.

## Conclusion

Past rural development policies and investments have focused heavily on improving agricultural productivity and less so on opportunities across the entire food system. The global food systems agenda provides an opportunity to reframe improving rural people's well-being. It also enables linking livelihoods to the environment and nutrition to create resilience.

The vision of this report is one of change driven by a new generation of rural agrifood entrepreneurs – young women and men who use their innovative energy, digital skills and voice to capitalize on opportunities to drive rural prosperity for all. Much of what needs to be done to improve food systems and the lives of rural women and men is well understood. The challenge lies in bringing about the required scale of systemic change. This requires political innovation to take decisions for the long term. Inclusive and forward-looking dialogue, while no panacea, is a starting point.

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International Fund for Agricultural Development  
Via Paolo di Dono, 44 - 00142 Rome, Italy  
Tel: +39 06 54591 - Fax: +39 06 5043463  
Email: [ifad@ifad.org](mailto:ifad@ifad.org)  
[www.ifad.org](http://www.ifad.org)

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