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European Training Foundation

INCLUSIVE SKILLS FOR INNOVATIVE ENTERPRISE DEVELOPMENT IN THE AGRI-BUSINESS SECTOR

SUMMARY NOTE

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PREFACE

This summary note presents the main findings from a research project on inclusive skills for innovative enterprise development in the aftermath of Covid-19 in the agri-business sector – a project launched by the European Training Foundation (ETF) and the European Bank for Reconstruction and Development (EBRD) in September 2020 as a response to the outbreak of the Covid-19 pandemic and its subsequent impact, including economic downturns, labour market contraction and new challenges for enterprises.

The project aimed to (i) gather evidence on practice of innovative enterprises in the agri-business sector that aim at inclusive skills development; (ii) draw lessons from this practice; and (iii) provide recommendations to policy makers and enterprises to strengthen inclusive skills development at company and sector levels. It covered five countries – Georgia, Morocco, Serbia, Turkey and Uzbekistan – and produced a series of national reports[1] and a cross-country report[2].

The cross-country report aims to strengthen the knowledge base around innovation and skills development in and for the agri-business sector; to support and guide knowledge sharing and peer learning among relevant stakeholders; and to disseminate best practices in policy and private sector initiatives to promote the sustainable growth of agri-business across the EU neighbourhood and Central Asian countries through and beyond the Covid-19 recovery.

The report provides an overview of challenges, opportunities, and current policy and private sector experiences concerning innovation and inclusive skills development for sustainable agri-business development in the five countries covered by the research. In particular, it examines the practices and experiences of a range of agri-business companies in each country, from micro, small and medium-sized enterprises (MSMEs) to international retailer brands. The report also examines some of the public policy implications of the industry trends and specific private sector experiences and provides some broad 'pointers' for further policy and private sector interventions to promote innovation and inclusive skills development in and for enterprise development in agri-business.

The study was implemented and the reports prepared by Ergon Associates. A team of experts comprising Alastair Usher, Sam Kelly, Anya Marcelis, Catherine Morgans and Jans Mynbayeva have contributed to the report and country cases. The report also benefitted from inputs from ETF experts, including Manuela Prina and Anastasia Fetsi, and from EBRD economists, including Margherita Calderone and Biljana Radonjic Ker-Lindsay. (For a complete acknowledgement section, see the full report.)

The cross-country report aims to strengthen the knowledge base around innovation and skills development…

[1] Country case study reports – Georgia, Morocco, Serbia, Turkey and Uzbekistan (unpublished).
[2] See *Inclusive skills for innovative enterprise development in the aftermath of Covid-19 in the agri-business sector* (ETF and EBRD, 2021).

CONTENTS

1. TRENDS AND PROSPECTS

1.1 AGRI-FOOD: THE GLOBAL TRANSFORMATION

Over the past 50 years, agri-food systems have undergone rapid transformation, making significant progress towards providing increased food security for an expanding world population. New technologies and innovative production processes have driven impressive productivity gains in primary agriculture, alongside a new diversity of techniques, products, markets and trade in downstream agri-food activities.

Agri-food systems remain a vital source of employment worldwide, supporting the livelihoods of a substantial proportion of the global population, including many of the most economically vulnerable groups. As developing nations pursue their transformation towards manufacturing and service-oriented economies, downstream agri-food processing, trade and retail is accounting for an increasing share of employment.

Despite this progress, the sector is facing significant challenges.

- Food insecurity and nutritional deficiencies remain a global cause for concern.
- The quality of agri-food employment makes it hard to attract talented workers.
- Agri-food production and value-chain models pose a significant threat to the environment and the climate.

Supporting the transformation of the agri-food sector will be crucial for meeting the United Nations' Sustainable Development Goals (SDGs). Sustainably developing downstream agri-business and improving productivity along the entire agri-food value chain are key to accelerate structural transformation and ensure decent jobs – especially in developing economies.

1.2 INNOVATION, SKILLS AND INCLUSION: A KEY TRIANGLE

Progress in the sector's sustainable development depends on a triangle of innovation, investments in skills development, and adoption of inclusive policies. Technological innovation is a driver for increasing productivity and reducing the sector's environmental footprint, while skills development reinforces the process and fosters new downstream industries. In parallel, inclusive policies and practices ensure that the benefits of change are shared equally, while providing agri-business with the broadest possible talent pool.

The speed and scope of this transformation is as yet uneven across countries and regions. To ensure the world meets the challenges of the future, policy and investment needs to focus on promoting innovation in agri-business sectors, alongside inclusive skills development initiatives.

Innovation: the key to the future

Innovation is central to the sustainable transformation of agri-food systems. Developing and adopting new technologies and business practices will be key to ensuring the sector's long-term sustainability and creating more and better jobs. Technological innovations have already driven a transformation towards higher value, more diverse and better-quality products. But innovation also extends to new business models, value chains and distribution models, in which technology plays a role alongside other processes and forms of organisation.

Focus areas for innovation include food processing, packaging and preservation, supply-chain management, and sales. Technological innovations are creating new possibilities for transforming and profiling products. Processing, measurement, packing and transportation are being transformed by automation, artificial intelligence and robotics, while data analytics is making it possible to self-modify equipment. New smart packaging needs to be recyclable, biodegradable and compostable, and reduced in volume. Production and sales are undergoing a digital revolution, which extends to the supply chain and e-commerce.

Meanwhile, blockchains offer huge opportunities for increasing traceability, improving efficiency and avoiding waste.

However, three factors are still impeding the potential for innovation – and related job creation – in agri-food industries: a fragmented value chain, an overarching focus on price competition, and significant skills deficits.

Skills development: an essential part of the puzzle

Skills are an important entry point to build resilience, support innovation, and create inclusive economic opportunities for the future. A skilled workforce is a driver of innovation, and a prerequisite for the development and adoption of new technologies. Developing workforce skills is therefore essential to enabling innovation-led growth of higher-value agri-food systems (skills supply) and, by extension, promoting the creation of decent employment opportunities throughout agri-food value chains.

Recruiting workers with the requisite skills is a key challenge for agri-food enterprises worldwide. Successful businesses in the sector require not only the technical skills to support new technologies, but also the soft skills to develop new business practices: these needs are increased as productivity gains in the sector shift employment away from primary agriculture and towards downstream segments.

Inclusive policies and practices in agri-business

A significant source of employment all over the world, agri-business is highly relevant for inclusion: it sustains the livelihoods of some of the most vulnerable population groups and is often the only viable activity in rural and remote areas. It is also a key source of formal, flexible work for women and young people, although evidence shows that women remain concentrated in lower-skilled segments. Focussing on inclusion brings benefits in the context of labour shortages, while inclusive business practices can improve the resilience of agri-businesses by fostering innovation.

1.3 EFFECTS OF THE COVID-19 PANDEMIC

The Covid-19 pandemic has had a significant, yet uneven effect on agri-food systems, with some sub-sectors seeing a surge in demand while others have been decimated. Some businesses report that the pandemic has acted as a catalyst for innovation and new business practices. For others, the crisis has hindered innovation, forcing companies to cut back on planned expenditures. The impact on labour supply has been mixed, with Covid-19 exacerbating shortages in some areas and alleviating issues in others. Crucially, it has prompted a huge shift in the way vocational training is organised and delivered. The transition to an increased role for remote learning is likely to endure and will facilitate the inclusion of rural populations and people with family responsibilities.

According to stakeholders, **key effects of the pandemic** include:

- **E-commerce:** The pandemic's most significant impact has been to change the way people buy and consume food. Introducing e-commerce tools has enabled consumers to buy food via web platforms, without physically entering a shop. A shift to e-commerce has been observed in food retail in all the countries that took part in the research.
- **Digitisation:** A number of firms reported how the accelerated adoption of digital technologies has rapidly transformed how their companies work, reducing information, transaction and supervision costs.
- **Remote learning:** Online training has been scaled up in all the countries of study, with improved access to skills development tools and increased use of digital solutions for distance learning.
- **New recruitment strategies:** Pandemic-related restrictions brought challenges in ensuring a seasonal labour supply. Responses have included proactive planning, using third parties to assist the recruitment process, absorbing increased transport and employment costs, segregating new arrivals for a quarantine period, and coordinating with local authorities on migrant worker movement.
- **Repositioning agri-business employment:** In some cases, disruptions in other sectors of the economy have brought opportunities for agri-businesses to position themselves as employers of choice.
- **Product innovation:** Firms reported exploring new product offerings, in line with consumer demand and increased interest in health, nutrition and local food.

The Covid-19 pandemic has had a significant, yet uneven effect on agri-food systems ...

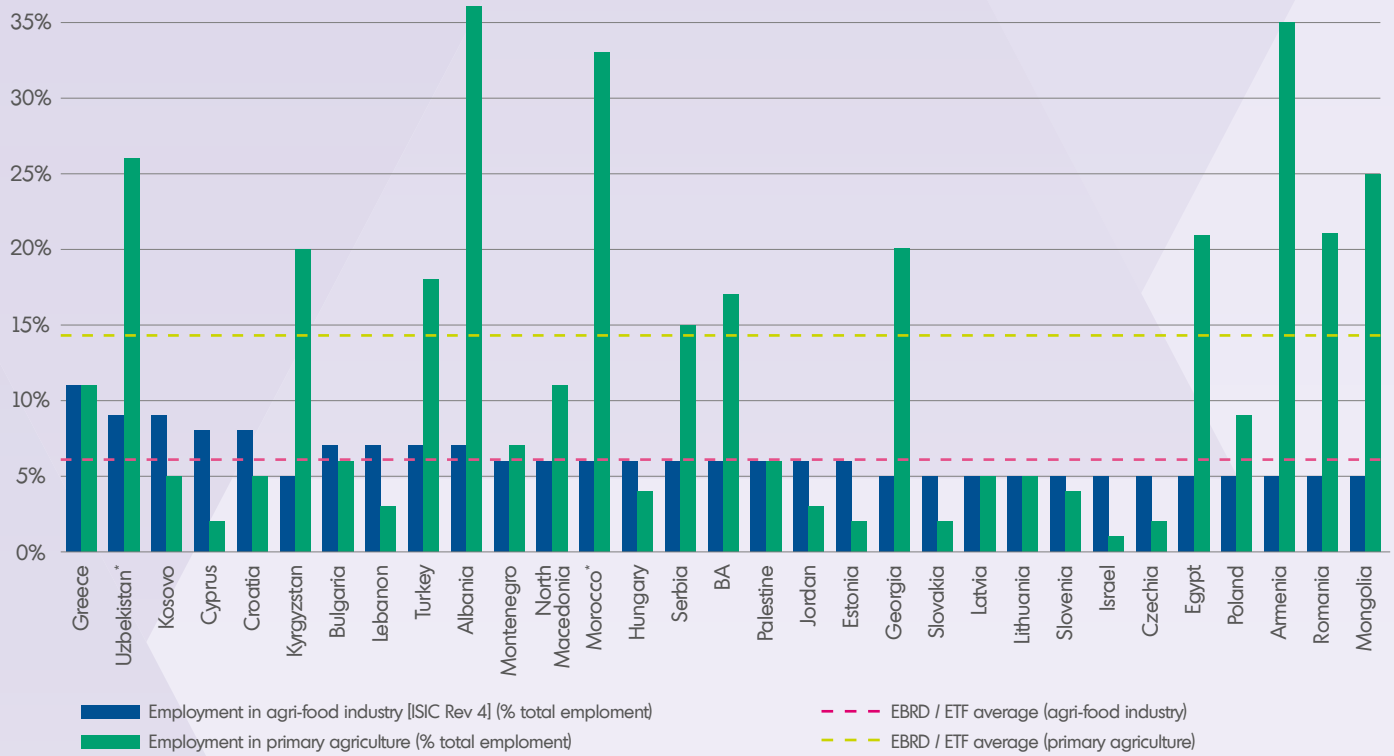
2. AGRI-BUSINESS IN GEORGIA, MOROCCO, SERBIA, TURKEY AND UZBEKISTAN

2.1 OVERVIEW

Agri-food is a strategic sector in all five countries covered by the research, making a significant contribution to the gross domestic product (GDP) and providing a key source of employment for a substantial share of the national population. In all these countries, the increasing importance of downstream agri-food processing, trade and retail compared with primary agriculture reflects an ongoing structural transformation towards more manufacturing and service-oriented economies.

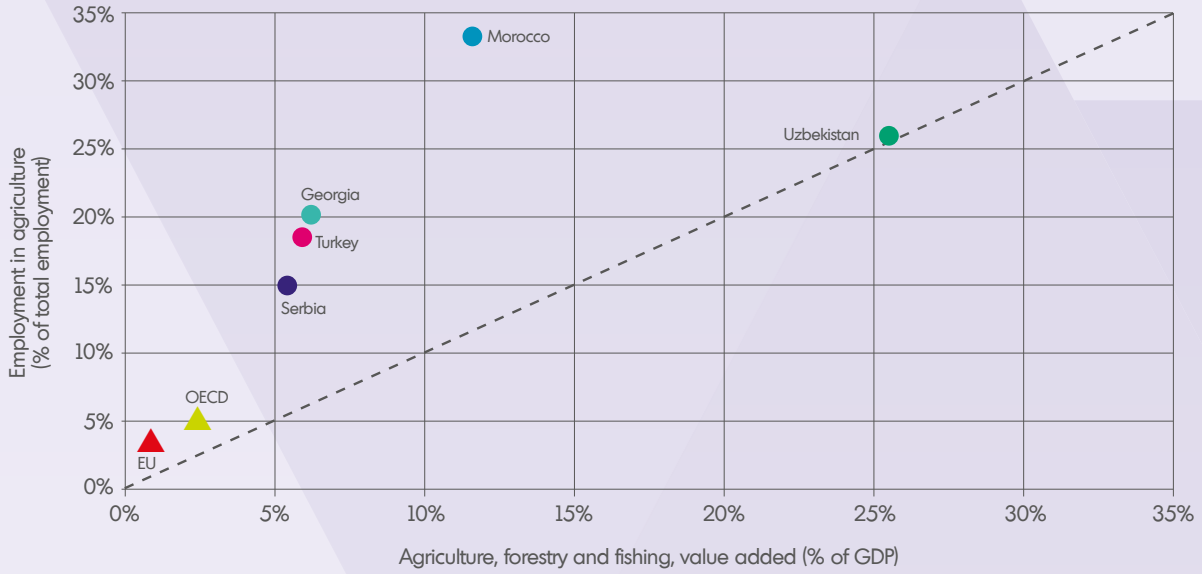
Primary agriculture is a major source of employment in all five countries, ranging from 15% (Serbia) to 33% (Morocco) of total employment. Downstream agri-food sectors contribute an important, but smaller, share of jobs: 5% in Georgia, 6% in Serbia and 7% in Turkey (World Bank, Enterprise Surveys, 2020). Although primary agriculture accounts for a substantial share of employment, the scale of employment is not commensurate with the sector's more modest contribution to the GDP. The result is a significant productivity challenge for agriculture relative to other sectors.

Figure 1.
Employment in primary agriculture and agri-food industry (% total employment, EBRD and ETF partner countries)



Notes: *Data for Uzbekistan and Morocco are based on ILO modelled estimates of employment in agriculture and World Bank Survey estimates of employment share in the 'food' industry. BA – Bosnia and Herzegovina.

Figure 2.
Relation between employment in agriculture (% of total employment) and agricultural value added as a % of GDP



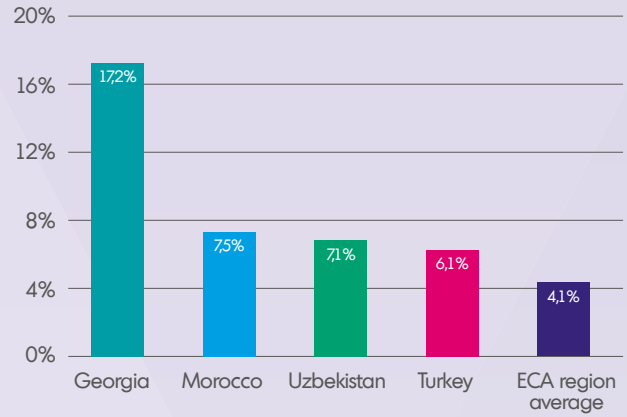
Source: ILOSTAT, Employment by sex and economic activity (most recent year available). Industry definition for agriculture is based on ISIC Rev. 4, 01 – Crop and animal production, hunting and related service activities; World Bank, World Bank Open Data [online]: https://data.worldbank.org/; ILOSTAT, Employment in agriculture (% of total employment), ILO modelled estimate; World Bank, Enterprise Surveys, 2020. Retrieved April 2021.

Enhancing agricultural productivity is vital for longer-term economic development but has significant implications for jobs. Given the importance of agriculture as a source of employment in all five countries, productivity gains achieved through a reduction in labour have potentially severe adverse implications for the livelihoods of agricultural workers and farmers. Yet the sector's low productivity compared to other sectors limits its capacity to support any increase in job quality and wages.

Although increased productivity necessarily implies a reduction in the number of primary agriculture jobs, more productive primary agriculture can also support job creation elsewhere along the agri-food value chain, with downstream industries benefitting from increased volumes, quality and supply reliability of raw materials at lower cost. This places a strategic focus on downstream agri-business to drive demand for the creation of more and better jobs. World Bank data (Enterprise Surveys, 2020) show that downstream agri-food sectors across the project countries have exhibited significant jobs growth in recent years, suggesting that at least some jobs lost in primary agriculture due to productivity gains can be offset by new employment opportunities created in downstream activities.

Enhancing agricultural productivity is vital for longer-term economic development but has significant implications for jobs …

Figure 3.
Net job creation in the food sector (%, most recent year)



Notes: The countries' scope includes those where the breakdown of 'food' as an industry was available. ECA – Europe and Central Asia.

Source: World Bank, Enterprise Surveys, 2020. Retrieved April 2021.

The growth prospects for agri-food processing and retail are positive in all five countries, with the expansion of international trade enhancing access to higher-value external markets. Turkey – the main exporter of agri-food products to the Middle East and Central Asia – has significant potential to produce food efficiently and increase exports. Georgia, Morocco and Serbia stand to gain from further raising food quality and safety standards. Morocco can also improve its resource use, while Uzbekistan can further improve productivity by adopting technology.

Georgia and Morocco have significantly expanded their food exports in recent years, reinforcing the growth of downstream agri-business industries. Yet despite national variations, the composition of the agri-food industry in all five countries shares some common characteristics. Their agri-food sectors are typically divided between a few large, vertically-integrated firms and a large number of (M)SMEs. While the former often employ modern technologies and business practices, the latter face significant financial and human capital constraints that limit their capacity to innovate. The result is a tendency towards highly fragmented agri-food industries that are not conducive to coordinated action on innovation and skills development.

Governments in all five countries have also taken steps to enhance the policy environment…

2.2 INNOVATION IN AGRI-FOOD: TRENDS AND CHALLENGES

In all the countries, there is recognition among stakeholders that adopting new technologies and upgrading business processes is both necessary and inevitable. Covid-19 has been a key driver of rapid innovative adaptations. Yet in general, the rate of adoption of technological and other innovations in the five countries has been slow, limiting increases in productivity and profitability, and thus the sector's ability to support better jobs and wages.

Despite these constraints, innovation is increasing. Data from Serbia's national statistical office suggests that the share of 'innovative enterprises' active in primary agriculture increased from 23% to 49% between 2012–14 and 2016–18. To date, most innovation at enterprise level has been focussed on enhancing manufacturing and production methods. Enhanced access to external markets is also contributing to innovation in product quality and design, as well as in business processes, sales and marketing.

Governments in all five countries have also taken steps to enhance the policy environment to promote innovation in agri-food, with particular emphasis on research and development, technology transfer and human capital development. Governments are also supporting other forms of business process and product innovation: through the development of regulations to establish geographic indications, for example. In Turkey, Serbia and Morocco, higher education institutions and/or industry associations have taken leadership positions in agri-business innovation, focussing both on developing new technology and providing training for agri-producers and downstream enterprises.

However, a significant 'innovation gap' remains between a small number of large, commercial agri-food enterprises, and the SMEs that dominate the sector. Innovation is typically concentrated in the larger enterprises that are integrated into international markets, while smaller businesses face self-perpetuating constraints of low innovation and low productivity. Limited value-chain infrastructure and services may also impede growth and innovation in the agri-food sectors in some countries, notably in Georgia and Uzbekistan.

In the context of highly fragmented agri-food systems, enhancing coordination and integration within value chains is thus a key area of focus for public and private sector initiatives to promote innovation. Regional clusters in Morocco and Uzbekistan have acted as 'innovation eco-systems', while Turkey provides examples of larger enterprises supporting smaller producers to become more efficient and profitable. Despite some state policy and programmes aimed at promoting innovation in agri-food, it should be noted that most innovation is still firm-led, and that the links between state and private initiatives are often weak.

2.3 SKILLS DEVELOPMENT: TRENDS AND CHALLENGES

Labour shortages and the absence of necessary skills within the labour market are a central concern for many agri-business enterprises. A range of agri-business companies reported challenges in recruiting workers with the skills and experience required for innovation and technology adoption, including skills related to the development and use of new technologies, (digital) sales and marketing, supply chain management, and skills adequate to the demands of new and emerging occupations (such as roles relating to supply chain traceability). Companies also noted shortages of recruits with adequate managerial skills to support innovative business process, organisational and human capital innovations.

Matching labour with skills demand from food and agriculture is a growing issue in all five countries. The skills required by agri-business are evolving and becoming more diverse, and sometimes less specific to the sector (such as digital and management skills). Vocational training has a role to play by anticipating new skills demand and offering lifelong learning. All five countries have made significant efforts to encourage skills development, particularly by establishing sector skills councils to address skills mismatches and promote coordination around skills development.

Reskilling and upskilling workers is an important and ongoing priority for employers and policy makers alike...

Yet agri-food industries across all five countries face significant supply- and demand-side skills challenges: skills mismatches leave employers with a shortage of suitable workers to fill vacancies, while graduates are frequently unable to find employment commensurate with their qualifications. In addition, skills shortages remain an overarching constraint in developing and absorbing new technologies and innovative business practices in most of the countries. Skills and knowledge gaps may well limit the effectiveness of broader sector-promotion activities.

Supply-side challenges

Some countries have particular concerns over the consistency and quality of outputs from national technical and vocational education and training (TVET) systems. Investment in TVET resources is a further constraint. Although some larger agri-food enterprises provide their own training programmes, few smaller enterprises are not able to do so. In addition, agri-food (and agri-TVET) is commonly perceived as an unattractive career option for young people, because of the industry's association with low-wage and low-skill work, and lack of career development. Stakeholders in all the countries also report inadequate contact points between young people and the agri-business sector prior to labour market entry.

Skills mismatches

There are mismatches between the outputs of education and training systems, and the skills required in private-sector agri-business. Initiatives to address these mismatches rely on the availability of adequate and reliable information on existing and future skills needs. The mismatches result both from students choosing non-sector-relevant fields of study, and poor alignment of curricula with the specific skills required by the sector. The matching of skills with jobs is further hindered by limited job placement services and information. In addition, the greater uptake of new technology throughout value chains has significant implications for reskilling and upskilling the existing workforce. Reskilling and upskilling workers is an important and ongoing priority for employers and policy makers alike.

Demand-side challenges

The structure of agri-food sectors in most of the project countries creates significant demand-side challenges for skills development, with formal job creation typically limited to a small number of larger enterprises. Agri-food is not perceived as an attractive career option for young people, due to associations of the industry with low-wage and low-skill work, and with restricted opportunities for career development. These structural conditions undermine efforts to pursue transformation towards a higher-productivity, higher-value agri-system that can support and promote demand for a higher skills base.

2.4 INCLUSIVE POLICIES AND PRACTICES IN AGRI-BUSINESS

The economic inclusion of young people is a key issue in all five countries. Despite the potential for agri-food industries to benefit from higher-skilled young workers, the sector continues to face challenges in attracting youth.

The agri-food sector is an important source of employment for women in all the countries, but they face persistent inclusion challenges with respect to occupation, career progression and pay. Uneven access to childcare is another potential barrier to women's participation in the labour market, especially in rural areas. Socio-cultural norms may also restrict women's access to more specialised occupations in agri-food, particularly in North Africa.

Despite these challenges, opportunities for enhanced inclusion exist. There is significant potential for the agri-food sector to boost youth inclusion by offering entry-level job opportunities at various skills levels. Several countries covered by the ETF-EBRD research have also implemented measures to enhance access to agri-food employment – along with related skills and training opportunities – fort vulnerable groups, including people with disabilities and linguistic/ethnic minorities. Although most female entrepreneurs own micro-businesses in low-productivity sub-sectors, there are also examples of female leadership in more productive downstream sectors. A number of promising initiatives focus on upgrading production and marketing capacity among female business owners and cooperatives to enhance market access.

2.5 ADAPTING TO COVID-19

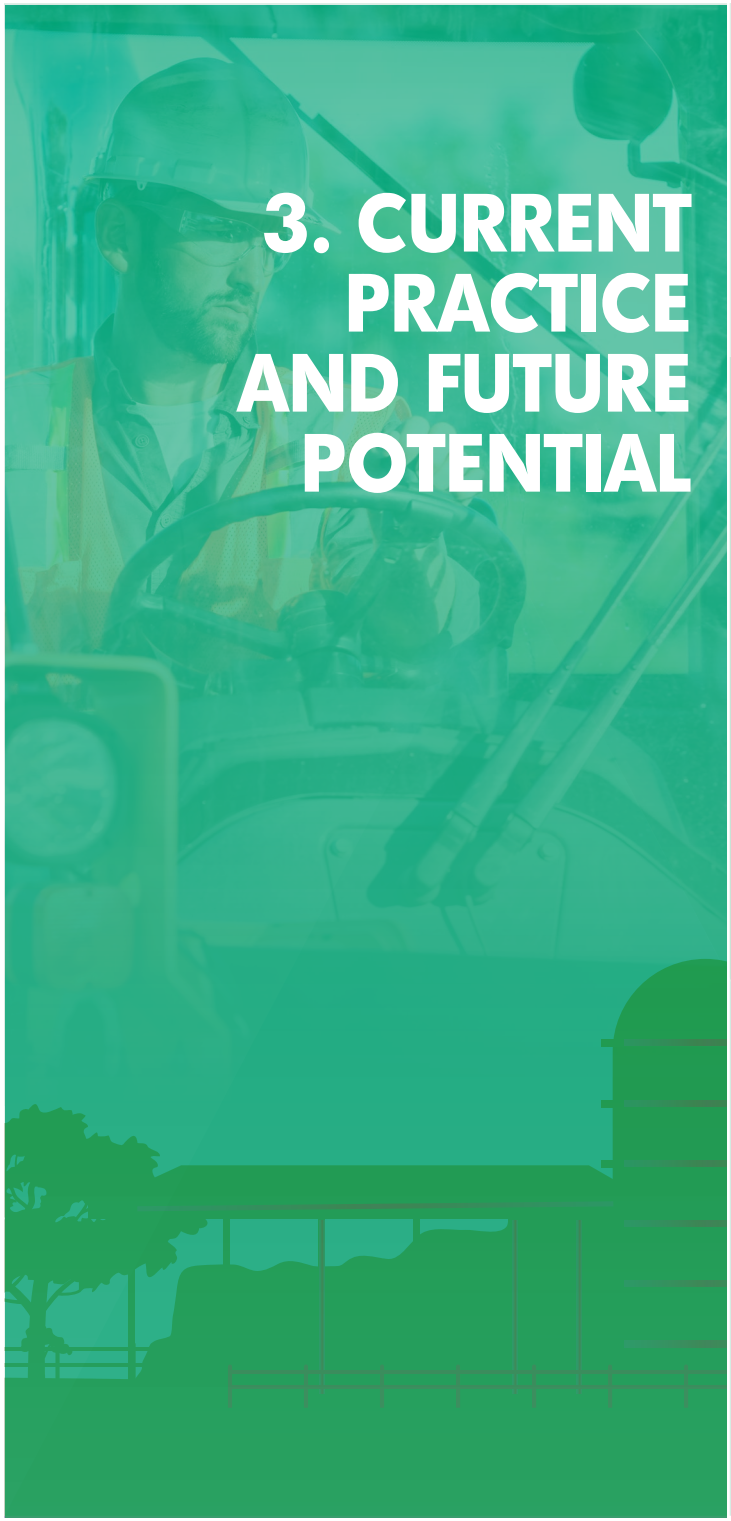
Overall, the agri-business sector has been insulated from the worst effects of the Covid-19 crisis. The impact of the pandemic has differed by sector and by country, with demand-side effects generally more significant than
supply-side impacts.

In Turkey, with its significant tourist industry, the effects have been significant; Covid-19 has also driven innovation and change, accelerating nascent developments like e-commerce. In Georgia, the pandemic and resulting economic shock has accentuated existing labour market challenges. The Moroccan agro-industry has been less impacted and has demonstrated strong resilience. In Serbia, the economic significance of agriculture and food processing has helped the national economy mitigate the adverse impacts of the crisis. And in Uzbekistan, the pandemic has brought new attention and emphasis to jobs in agriculture, as the sector has been much more resilient than other sectors of the economy.

Impacts on agri-business segments were also differentiated. Restrictions in labour mobility have caused labour shortages in primary production, while exports have been impacted by lower demand and logistics challenges. In processing segments, most companies have implemented new measures to keep factories open and workers safe. As a result of the pandemic, safety and traceability have become the main drivers in maintaining food exports. In addition, it has posed a challenge to the smooth running of operations, especially with regard to supplying demand while conforming to new sanitary norms: typically, this has hastened the introduction of e-commerce and digital tools.

In general, the experience of the pandemic has brought about a shift in mindset, towards increased resilience and innovation. There is now an opportunity to build on the innovations 'forced' by the Covid-19 pandemic. These include e-commerce and delivery, alongside automation and flexible work arrangements.

The crisis has also prompted a huge shift in the way vocational training is organised and delivered. Many vocational education colleges closed, with learning either suspended or moved online. There is now an expectation that elements of distance learning will become a permanent feature of vocational education programmes. Although the pandemic has caused challenges for national education and training systems, there is also potential for permanent change towards training models that can offer greater effectiveness and inclusiveness.



3. CURRENT PRACTICE AND FUTURE POTENTIAL

3.1 INNOVATION

In all five countries, the main driver for innovation is the pursuit of new market opportunities. Changing consumer demand is creating new opportunities, while the positive reputational effects associated with improved sustainability is also driving a transition to enhanced business practices. More recently, the Covid-19 pandemic has 'forced' innovation, especially with regard to accelerated digitalisation and increased connectivity. The crisis has also brought changes in consumer behaviour that are likely to extend beyond the pandemic and will require innovative responses from the agri-food sector.

Technology-driven innovation – Agrocity, UZBEKISTAN

Agrocity is a Tashkent-based company specialised in processing, wholesaling and exporting beans and legumes. Founded in 2015, it considers itself a leader in terms of applying high-end technology to production. This technological approach enables Agrocity to merge processes, including the drying, cleaning, peeling, calibration, filtering, separation, polishing, photo-sorting, weighing and packing of products. It has also created a more uniform process, allowing for more effective quality control. The sophisticated equipment translates into a reduced requirement for human resources: with only two members of staff required to oversee the process, the total employee headcount is only 12, including management, processing, supply and logistics. Despite its small staff, Agrocity has secured a 5% total market share of bean processing in Uzbekistan.

New products – Yayla, TURKEY

Based in Ankara, Yayla Agro Food Industry and Transportation Inc. is a leading food manufacturer specialised in pulses and rice. Using state-of-the-art technology and facilities, Yayla is able to produce high-quality food products without the need for cold-chain technology. Recently, one of Yayla's key innovations has been the development and distribution of convenience, ready-to-eat products. Its ready-to-eat facility in Mersin was launched in 2018 and paved the way for the distribution of innovative and healthy products on the Turkish market. These products have proved popular, with a marked increase in demand as a result of the Covid-19 pandemic.

Sustainable innovation – Oreka, TURKEY

The total cost of Turkey's food waste is estimated at EUR 23 billion each year. The start-up platform Oreka was launched in September 2020 – in the wake of Covid-19 – with the goal of slashing that figure. Oreka is an app-based marketplace where restaurants, bakeries, cafés and groceries sell their surplus foods to consumers at discounts of 50% or more. The result: a win-win situation that generates sales for food retailers while introducing them to new customers, provides fresh foods to consumers at very reasonable prices, and protects the environment by reducing waste.

3.2 SKILLS DEVELOPMENT

Labour shortages and the absence of necessary skills within the labour market are a central concern for many agri-business enterprises. As a result, many larger firms have established their own skills development initiatives. In all five countries, there is an overarching concern about the lack of consistency and quality of outputs from national TVET systems.

In-company training – TAB Gida, TURKEY
Established in 1994, TAB Gida is Turkey's leading fast-food operator with 1 200 restaurants across the country. The TAB Academy is its employee training platform, supporting and developing human capital and ensuring that employees are fully equipped with the skills they and the company need. The TAB Academy takes the form of an e-learning platform, with training content designed, developed and constantly updated by experienced academic professionals. The platform enables TAB Gida to reach a large number of employees simultaneously and offers a wide range of skills development content.

Links with higher education – Agromir, UZBEKISTAN
Established in 2003, the JV Agromir group is Uzbekistan's largest juice producer. The most significant skills gap facing the company in recent years has not been in technical skills, but rather in the field of finance and business management. In response, Agromir has established a cooperation agreement with Tashkent Finance Institute and Tashkent University of Economy, whereby senior company staff give guest lectures at the university. The partnership is an effective way of creating stronger ties and promoting the company among students, with Agromir offering regular student internships.

Integrating skills planning into decision making – LCM, MOROCCO
Established in 1929, Les Conserves de Meknès – Aïcha (LCM) is a long-standing Moroccan brand focussed on the production of preserved foods. Like a growing number of agri-business enterprises, it has made skills planning a priority component of its business strategy. The company is conscious that innovation – such as promoting new management models or introducing new technologies – requires dedicated human resources strategies and human capital development to maximise the benefit. As a result, LCM analyses its skills and personnel needs at the planning stage for all new projects and innovations.

3.3 INCLUSIVE POLICIES AND PRACTICES

Although women and young people make up a significant part of the agri-business workforce, few of the enterprises surveyed in the research reported specific initiatives aimed at improving inclusion outcomes. A key driver of inclusion and diversity for agri-business companies is the need to meet labour and skills shortfalls. But a diverse workforce brings other positive benefits. Georgia's Cartlis Agrosystems has found that professional development processes based on equal opportunities have resulted in higher productivity and retention among women employees. In addition, reputational concerns drive companies' interest in inclusion and diversity.

Developing the internal talent pipeline – Tbilvino, GEORGIA
Tbilvino is a leading wine producer in Georgia, focussed on producing high-quality wines for export. The majority of the workforce are women, who are present at all levels of the company including senior management positions. The company is very keen to recruit and promote women, having had very positive experiences with the innovative practices introduced by female employees. Recruiting employees with the necessary technical skills has been a challenge. As a result, Tbilvino has developed a comprehensive recruitment, training and retention strategy to build the skills of their staff in-house. The process has proved extremely helpful in selecting employees who have significant potential to develop within the company, even when they do not have the skills prior to being employed.

Nurturing graduate talent – Marbo, SERBIA
Marbo, a Serbian snack producer and member of the multinational Pepsico, invests in talent development via an internship programme aimed at young university graduates with no prior work experience. Selected candidates are taken on for a two-year internship, which is tailored to include a range of skills development practices. In addition, Marbo has set up a one-month programme to provide practical opportunities for final-year agricultural students at Belgrade and Novi Sad universities. Selected students receive training from Marbo company experts, and practical experience through work placements throughout Marbo's value chain.

Using smallholders to future-proof supply chains – Delta Agrar, SERBIA
Delta Agrar, a diversified Serbian agri-business, is engaged in a broad range of corporate social responsibility activities, including projects to support local communities engaged in primary production. In 2018–19, it piloted a project called 'Our Village' in two villages in East Serbia. Experts and specialists from Delta Agrar supported local farm owners with advice and technical training in primary production, including management systems. The company also offered financial support via a local financial institution and purchased goods produced under the project. By investing in the development of local communities and producer skills, Delta Agrar hopes to establish a more resilient agri-business sector in Serbia and make agriculture more attractive to younger generations.

3.4 RESPONSES TO COVID-19

Given the unpredictable trajectory of Covid-19, including recurring lockdowns and restrictions, agri-business firms have had to transition their workforces to new forms of operations. This has often been accompanied by workforce skills development to develop internal capacity and create an agile workforce that can respond to rapid change. As firms have adapted to the short- and medium-term consequences of Covid-19, there have also been opportunities to introduce changes based on a longer-term perspective.

Implementing digital solutions – Cosumar Group, MOROCCO
The Cosumar Group is Morocco's sole sugar producer, extracting, refining, packaging, distributing and exporting sugar. Covid-19 has led to an acceleration of the introduction of digital working methods and increased mechanisation of the company's operations. This has included strengthening virtual communications with out-grower farmers, and the experimental introduction of technologies such as drones. Most notably, the company distinguished itself by introducing a digital solution called Attaissir: all programming operations – from sugar harvesting, automatic encoding of plots, allocation of agricultural machinery, and transportation and delivery of sugar plants, to payment of farmers by bank transfer – have been digitalised using this system.

Accelerating digital transformation – Anadolu Etap, TURKEY
Anadolu Etap Penkon Food and Agricultural Products Industry Trade Co. Inc. is a major Turkish juice producer, engaged in both primary production and the processing of fruit. During the pandemic, it quickly adapted to domestic and international markets by moving customer contact onto digital platforms. For white-collar posts, the company switched to teleworking and a rotating model, strengthening the technological infrastructure to facilitate these remote operations. The pandemic has accelerated digital transformation within the company, bringing cost-saving and efficiency gains.

Developing online training – Korzinka, UZBEKISTAN
Korzinka – a major supermarket chain in Uzbekistan – reacted to the Covid-19 crisis by intensifying its learning and development activities online. Staff training is now available 24/7 online for all employees. Moving training online has created a marked increase in interest. After the pandemic period, Korzinka will return to some in-person training but will maintain the online component, which is seen to be highly effective among younger staff. The company also launched an online programme that aims to develop 'universal' employees who can easily move between positions, thus creating greater flexibility.

4. PUBLIC POLICY: SUPPORTING THE VIRTUOUS CIRCLE

The private sector is meaningfully engaged in human capital development efforts relating to agri-business in the five countries covered by the study. However, this engagement is not distributed equally across companies: big companies are typically more active, while smaller companies are less so. There is therefore scope to support more systematic resilience and recovery, where existing efforts by the private sector are linked to – and supported by – public policy measures aimed at the inclusive skills dimension. The fundamental policy challenge thus concerns how to create practical pathways to higher-productivity, higher-value agri-systems that can sustain and promote the demand for a higher skills base.

In this context, Covid-19 represents a window of opportunity for public policies. The pandemic has accelerated the pace and scale of workplace innovation, and there is now an opportunity to build on the 'enforced' innovations introduced in response to the crisis. It is important, however, to acknowledge that the pandemic has also exposed and widened existing divisions: the digital divide, the gender divide, the generational divide, the formality divide, and the skills divide. Findings from the agri-business sectors surveyed in the study suggest that diverse sourcing and digitalisation will be key to building stronger, smarter supply chains in agri-food systems.

Another overarching theme concerns the scope that exists to improve the coherence and transparency of policy packages. The human capital and labour market needs of agri-business can be further integrated into wider agricultural policy, by recognising that agri-business development is a vector of significant social and economic transformation. Because innovation is key to improving productivity, sustainability and resilience in agri-food value chains, broader policies on innovation and digitisation are also of direct relevance to the agri-business sector. Indeed, public policy can significantly shape the impacts of digital transformation on innovation and inclusion outcomes in agri-business.

The pandemic has accelerated the pace and scale of workplace innovation...

5. POLICY POINTERS

1. Deepen the links between inclusion, innovation and skills in policies targeting the agri-business sector: ensure that an inclusive skills dimension is integrated in sector strategies and policies relevant to agri-business.

2. Integrate an inclusive skills approach in short-term post-pandemic policy responses: capitalise on the adaptations and innovations necessitated by Covid-19, and recognise and pursue immediate opportunities for inclusive skills development.

3. Foster agri-business innovation: actively support the innovative development of private-sector agri-business – including early-stage innovation for a broad range of smaller firms – and foster links between innovation activities, agri-business sustainability and consumer demand, including higher-value export opportunities.

4. Integrate approaches to agri-business skills: integrate and defragment approaches to agri-food skills development to deliver an ambitious vision of agri-food transformation.

***5.* Actively promote a more inclusive agri-business** that can enhance innovation and productivity while reducing its environmental footprint, and drive demand for higher-skilled, higher-value jobs that create opportunities for a broader base of workers.

LIST OF ACRONYMS

EBRD
European Bank for Reconstruction and Development

ETF
European Training Foundation

EU
European Union

EUR
Euro (currency)

GDP
Gross domestic product

ILO
International Labour Organisation

LCM
Les Conserves de Meknès – Morocco

MSMEs
Micro, small and medium-sized enterprises

OECD
Organisation for Economic Cooperation and Development

SMEs
Small and medium-sized enterprises

TVET
Technical and vocational education and training