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REVIEW AND RECOMMENDATIONS ON THE REU WORK PROGRAMME 2022-2023

RI 1: ACCELERATING THE DIGITAL TRANSFORMATION OF RURAL AREAS THROUGH THE FAO 1000 DIGITAL VILLAGE INITIATIVE

Digital technologies are yielding new growth in the food and agriculture sector and in rural areas. They are enabling farmers to work more precisely, efficiently and sustainably; connecting producers and consumers in new ways; and offering consumers greater choice and transparency. However, the digital technology dividends are not automatic. Rural areas in Europe and Central Asia are still falling behind when it comes to the adoption of new technologies due to weak infrastructure, affordability and availability of solutions and services, lack of awareness, digital skills, and regulatory issues.

Recognizing the opportunities, but also the potential risks, offered by ICT for accelerating transformation of the agrifood systems and contributing to the achievement of the Sustainable Development Goals, **in January 2021 FAO launched the Digital Villages Initiative (DVI**) with the goal to convert at least 1000 villages around the world into Digital Villages. With DVI, FAO is supporting a digital rural transformation process to address agrifood systems' challenges and improve the livelihoods and resilience of rural communities.

ICT is considered as an accelerator that can increase agricultural productivity, provide economic opportunities, and accelerate rural development. It allows rural communities to better access services, markets, networks, critical knowledge, information, and financial and job opportunities. DVI addresses three dimensions:

- From the perspective of **agricultural production**, the initiative focuses on *improving agricultural productivity* by applying of "smart farming solutions" typically through devices connected to the internet (*e.g. sensors, drones, and agrobots*) and the application of various digital technologies (e.*g. internet of things (IoT), artificial intelligence (AI) and remote sensing*) that can make farming more precise, automated and sustainable;
- From the perspective of **farmer's livelihood**, it focuses on *enhancing farmers' access to digital services* (advisory, extension and information services, financial and insurance services, social protection and public services, etc.), as well as better connecting them to markets and suppliers, hence improving the overall efficiency of food value chains;
- From the perspective of the **village**, it focuses on supporting a holistic *digital rural transformation of the community,* enhancing the delivery of public services in other sectors, such as health, education, tourism, transport and energy, while fostering digital skills and community initiatives that stimulate innovation, twinning relationships and co-creation with various actions.

Following its launch in 2021, the Digital Villages Initiative was first piloted in several countries, including pilot DVI approaches in Europe and Central Asia. Nevertheless, its implementation in the region is not starting from scratch but is successfully building upon extensive work of FAO in the area of rural development, digitalization, and agritourism.

To facilitate the roll-out of DVI in the region, FAO has been studying the European experience with Smart Villages and developed a tool – the "**DVI Readiness Assessment Tool**" - to analyse the level of maturity

of potential Digital Villages via 17 criteria across 3 dimensions: the "digital ecosystem", the "leadership and governance", and the "strategic context". Only in 2022, the tool was utilized to assess more than 30 rural communities across 7 countries and territories of Europe and Central Asia.

In addition, with the intention to bring rural communities closer and encourage the creation of links and cooperation, FAO has piloted an innovative **'DVI twinning'** approach. Twinning aims to establish formal cooperation between rural communities, institutions and other actors to promote the exchange of knowledge, good practices and technology transfer. In 2022, FAO piloted twinning between Lormes, a Smart Village in France, and Permet, a potential Digital Village of Albania, and supported the exchange of knowledge between Tajikistan and the Republic of Korea.

If opportunely harnessed, Digital Villages approaches may also **strengthen the resilience of the agrifood systems to the shocks of the war and increase food security**. Digital solutions and services can:

- *Facilitate access to agricultural inputs* by providing real-time and location-specific data to farmers, such as where to buy and the price of seeds, fertilizers, fuel, energy and other agriculture inputs.
- *Open new market opportunities for agricultural stakeholders whose usual distribution channels are disrupted*, as they can find new buyers and/or sell inputs and outputs online via messaging app groups and/or e-commerce platforms and make online payments.
- *Provide real-time price information* to farmers, traders, and consumers in both local and international markets, so that farmers can make better decisions on which food to grow and where to sell the produce, and consumers can make better decisions on where to purchase.
- *Enable the delivery of early warnings and agricultural advisory services related to weather hazards and pest infestations* so that farmers can make better-informed decisions and reduce risks.
- *Optimize the use of inputs, resources and energy in agriculture production* as precision agriculture solutions, digital calculators and software applications can calculate the exact amount of inputs to apply based on data, sensors and remote-sensing data.
- *Facilitate access to information on special grants, subsidies and insurance schemes,* enabling farmers to apply online and to receive subsidies digitally.

As of February 2023, ten of the FAO European and Central Asia programme countries and territories have laid the grounds for the implementation of DVI by undertaking DVI Readiness Assessments, and several others are in the process of establishing their first Digital Villages through FAO-supported Technical Cooperation Programmes (Albania, Azerbaijan, Bosnia and Herzegovina, Georgia, and Türkiye) or Flexible Voluntary Contribution projects (Kyrgyz Republic, Tajikistan, and Uzbekistan).

Work ahead

- Accelerate the implementation of the Digital Villages Initiative among ECA countries to mitigate the negative impact of the war in Ukraine and COVID-19
- Raise awareness on DVI and fostering "twinning" relationships and cooperations among ECA countries, especially between existing Smart Villages and future villages of FAO.
- Collect, document and disseminate good practices on smart and digital villages initiatives, as well as digital solutions and innovation successfully implemented.
- Introduce a digital platform where all interested stakeholders will be able to assess village readiness, find their village twinning match, learn, connect, and get inspired to embark on a digital rural transformation process.

The ExCom is invited to:

- Provide insights on how the Digital Villages Initiative (DVI) and twinning could be harnessed to address the digital rural divide and promote the exchange of knowledge, good practices and technology transfer among ECA countries.