



DIGITAL AGRICULTURE: CONNECTING THE UNCONNECTED WITH ADVANCED TECHNOLOGIES TO IMPROVE THE EFFICIENCY AND PRODUCTIVITY

Prof. Dr. Binu Thomas
binupng2012@gmail.com
Sikkim Professional University, India

ABSTRACT

Digital agriculture encompasses a wide range of technologies, including precision agriculture, the Internet of Things (IoT), and smart farming sometimes known as smart farming or e-agriculture, is tools that digitally collect, store, analyze, and share electronic data and/or information in agriculture. The Food and Agriculture Organization of the United Nations has described the digitalization process of agriculture as the digital agricultural revolution. United Nations Projects also emphasize the role of digital technology in the optimization of food systems. Emerging digital technologies have the potential to be game-changers for traditional agricultural practices. The Food and Agriculture Organization of the United Nations has referred to this change as a revolution: “a ‘digital agricultural revolution’ will be the newest shift which could help ensure agriculture meets the needs of the global population into the future. Digital agriculture is the use of new and advanced technologies, integrated into one system, to enable farmers and other stakeholders within the agriculture value chain to improve food production. Most of today’s farmers make decisions such as how much fertilizer to apply based on a combination of rough measurements, experience, and recommendations. Globally, technology has been advancing fast. The COVID-19 pandemic accelerated the shift in digital transformation, seeing more companies, governments, and civil society carry out remote training, using digital tools to boost the effectiveness and scale of delivery. The increasing role of technology in addressing these issues is the only way forward to a food-secure future. Technology can help save foreign exchange for countries, increase productivity, and lead to an improvement in the overall standard of farmer communities.

Keywords: Digital agriculture , e-agriculture , e-agriculture , advanced technologies , farmers , digital transformation