



GENDER RESPONSIVE STRATEGIES TO DIGITAL TECHNOLOGY FOR RESILIENCY AGAINST CLIMATE CHANGE TOWARDS AGRICULTURAL SUSTAINABILITY

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Understanding Some Terminologies

- ▶ **Sex:** Biological differences/determinants between males and females which are normally universal and determined at birth. It is the physiological state of being a male or female.
- ▶ **Gender:** Social construct of *prescribed* (pre-arranged) roles, responsibilities, expectations, characteristics, behaviors, rights, privileges and *exclusions* assigned to people based on their multiple identities
- ▶ **Gender equality:** Sameness of results attained by rights, responsibilities and opportunities of women and men and girls and boys
- ▶ **Gender Equity:** Fairness in representation, participation and benefits afforded to men and women. It recognizes that in order to achieve equality a levelling playing field must first be establish to compensate for gender disparity and age long legacy of discrimination.

- ▶ **Intersectionality:** Intersectionality is the complex, cumulative manner in which the effects of different forms of discrimination combine, overlap, or intersect to inform the experiential reality of individuals and groups of people
- ▶ **Agricultural Digitalization:** "digital agriculture" or "agtech" (agricultural technology), involves the integration of advanced digital technologies, data-driven solutions, and information and communication technologies (ICTs) into various aspects of agricultural practices and processes.
- ▶ **Gender Responsiveness:** outcomes that reflect an understanding of gender roles and inequalities and which make an effort to encourage equal participation and equal and fair distribution of benefits.
- ▶ **Women Empowerment:** Expansion in women's ability to make strategic life choices in a context where this ability was previously denied to them. It means giving women the tools or equipping them with knowledge, skills and capacity to participate in decision-making and access to power.

Objectives of the Gender Paper

seeks to address critical issues at the intersection of

- ▶ climate change
- ▶ Agriculture
- ▶ Gender
- ▶ Digital technology

It has become imperative to explore

- ▶ innovative solutions that empower farmers, particularly women,
- ▶ harness the potential of digitalization to enhance farmers resilience

Climate Change Impacts on Farming

An imminent threat to agriculture, a sector already facing numerous challenges.

- ▶ Changing Weather Patterns, Crop yield Variability, Resource depletion, Water scarcity, Increased Pests and Diseases, Economic uncertainty, Migration and Displacement

Gender Disparities

Women in agriculture often face distinct challenges including:

- ▶ reduced access to resources
- ▶ limited decision-making power, and increased workloads due to climate-related stresses.
- ▶ Gender inequalities in farming exacerbate the impacts of climate change on women farmers

Why?

Relevance?

- ▶ Addressing a Pressing Global Issues
- ▶ Empowering Vulnerable Communities
- ▶ Harnessing Digital Solutions
- ▶ Inter-disciplinary Insights
- ▶ Knowledge dissemination
- ▶ Policy Implications
- ▶ Long-Term Sustainability
- ▶ Global Collaboration

The Existing Gender Disparities in the Agricultural Sector

Disparities in

Access to agricultural inputs and resources, Income, Knowledge and Training, Representation in Agricultural Organizations, Climate Vulnerability, Health and Nutrition, Legal Rights and Time Burden

Challenges Faced by Farmers in Adapting to Climate Change

- ▶ Limited Access to Climate Information
- ▶ Resource Scarcity
- ▶ Crop and Livestock Losses
- ▶ Increased Workload
- ▶ Health risks
- ▶ Limited Mobility
- ▶ Lack of Training and Extension Services
- ▶ Land Tenure Insecurity
- ▶ Limited Participation in Decision-Making
- ▶ Market access
- ▶ Inadequate Access to Credit and Finance
- ▶ Lack of Training and Extension systems
- ▶ Gender based violence

Present Statistics Illustrating Gender Disparities

- ▶ **Access to Land:** women make up about 43% of the agricultural labor force in developing countries, with significantly less access to land ownership (15%) - FAO
- ▶ **Resource Access:** Women receive only 5% of agricultural extension services globally, limiting their access to vital information and training on climate-resilient farming practices- WB
- ▶ **Credit and Finance:** In sub-Saharan Africa, only about 15% of women have access to formal credit for farming- The International Finance Corporation (IFC)
- ▶ **Decision-Making:** A study by the CGIAR Research Program on Climate Change, Agriculture, and Food Security (CCAFS) found that in many rural communities, women are often excluded from decision-making processes related to climate adaptation strategies and resource management
- ▶ By 2050, up to 158 Million more women and girls could be pushed into poverty if climate change worsens- UN Women

Concept of Digitalization in Agriculture

The primary goal of digitalization in agriculture is to

- ▶ optimize and enhance the efficiency
- ▶ sustainability
- ▶ productivity and resilience of farming operations while making informed decisions based on data and technology.

Key components and concepts of digitalization in agriculture

- Data Collection and Sensors
- Internet of Things (IoT)
- Data Analytics and Artificial Intelligence (AI)
- Precision Agriculture
- Farm Management Software
- Mobile Technology
- Market Access and e-Commerce
- Digital financing
- Block chain Technology
- Climate resilience

Gender Responsiveness in Digital Agriculture

- ▶ Achieve Gender Equality and Equity
- ▶ Economic Empowerment
- ▶ Reducing Gender Disparities
- ▶ Enhancing efficiency
- ▶ Food security
- ▶ Climate Resilience
- ▶ Education and Knowledge Transfer
- ▶ Women' entrepreneurship
- ▶ Gender smart investing
- ▶ **Gender-smart investing (GSI)** is defined as an investment
- ▶ strategy that seeks to intentionally and measurably use
- ▶ capital to address gender disparities and better inform
- ▶ investment decisions.

Challenges and Opportunities for Promoting Gender Responsiveness to Digital Technology

Challenges

- ▶ **Digital Divide:** Gender disparities in access to digital technology persist in many regions. Women may have limited access to smartphones, internet connectivity, and digital literacy.
- ▶ **Cultural Barriers:** Sociocultural norms and gender roles may restrict women's participation in digital agriculture initiatives. Cultural biases can limit women's decision-making power and control over resources.
- ▶ **Resource Constraints:** Women often have fewer resources, such as land and financial capital, which can limit their ability to invest in digital tools and technologies.
- ▶ **Lack of Training:** limited access to training programs on digital tools and may face barriers in acquiring the necessary skills for their use.

Opportunities

Opportunities

- ▶ **Tailored Solutions:** Developing gender-sensitive digital solutions that address the specific needs and constraints of women farmers is crucial. These solutions should be user-friendly and accessible.
- ▶ **Digital Literacy Programs:** Implementing digital literacy programs for women can enhance their skills and confidence in using digital tools effectively.
- ▶ **Responsive and Inclusive Policies:** Governments and organizations can enact policies and initiatives that promote gender inclusivity in agriculture and digitalization efforts.
- ▶ **Partnerships:** Collaborative efforts involving governments, NGOs, private sector, and civil society can provide a holistic approach to address gender disparities in digital agriculture.

How Gender and Digitalization Intersect

- ▶ Digital financial inclusion initiatives
- ▶ Digital banking services provided a means for farmers to access credit and savings
- ▶ The intersection of gender and digitalization allowed women farmers to invest in climate-resilient agricultural practices
- ▶ drought-resistant seeds and improved irrigation, thereby enhancing their capacity to adapt to climate change.
- ▶ Gender Smart Investing: Ex Ante and Post with equity
- ▶ Digital tools used to disseminate information about climate-resilient crop varieties
- ▶ Gender-friendly technologies digital tools for climate-smart practices
- ▶ The digitalization of agricultural knowledge empowered farmers to make informed decisions about crop selection and cultivation techniques

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- ▶ The adoption of climate-resilient crop varieties and improved agricultural practices result in increased crop yields and food security for women farmers
- ▶ Digital tools for disseminating knowledge and enabling women to make informed decisions
- ▶ Financial resources to improve climate resilience, contributing to the overall sustainability and food security
- ▶ Digital financial inclusion empowered women to access financial resources for climate-resilient investments.
- ▶ By investing in drought-resistant seeds and better irrigation systems to cope with changing weather patterns and reduce the risks associated with climate change.

Strategies for Promoting Gender-Inclusive Digital Agriculture

- ▶ Gender-Responsive Digital Infrastructure
- ▶ Digital Literacy and Training Programs
- ▶ Tailored Information and Content
- ▶ Financial Inclusion Initiatives
- ▶ Gender-Responsive Training and Extension Services
- ▶ Inclusive policy framework
- ▶ Promote Women's Leadership and Decision-Making
- ▶ Monitoring, Learning and Evaluation
- ▶ Partnerships and Collaboration
- ▶ Research and Data Collection
- ▶ Invest in research to better understand the gender-specific challenges and opportunities in digital agriculture.
- ▶ Collect sex-disaggregated data to inform evidence-based policies and programs.
- ▶ Raise Awareness and Challenge Stereotypes
- ▶ Technical Support and Help Desks

Conclusion

Who should benefit from digital technology?

- ▶ People with weak agencies:
- ▶ Power to- act and take action and having ability to make positive change
- ▶ Power with: collective actions or agency- both psychological and political power that comes from being united, joining together with others through building share understanding, to plan and take necessary actions.
- ▶ Power over:- having a form of authority, control or domination. Those with authority over others are considered to be powerful and other are considered powerless
- ▶ Power within: Sense of confidence, dignity and self-esteem that comes from gaining awareness of one's situation and realizing the possibility of taking necessary steps towards the right direction

"If we give everyone the exact same thing, expecting that this will make people equal, it assumes that everyone started out in the same place - and this can be vastly inaccurate because everyone isn't the same."

Thank you!