

SOFTWARE AND APPLICATION INNOVATION **AGRICULTURE PRODUCTIVITY IN ETHIOPIA**

Cindy Aprilia, Mercy Bamiduro, Md Ariful Islam, Sadrul Mizan Nashid

Table of **contents**

01

Introduction of the challenges

17 February 2023

02

Market Analysis

24 February 2023

01

INTRODUCTION OF CHALLENGES

Target

About Ethiopia

With huge labor forces and water resource, Ethiopia has marvelous opportunities for the commercialization of their agriculture product. However, Ethiopia's current fruit, vegetable, and animal production for export are low values because of fragmented cultivation and lack of quality products. Agricultural productivity is a major challenge for sustainability as it has a direct impact on the country's food security, economic growth, and poverty reduction.



National Income

Employment- 67%

Export - 80%

GDP - 40%

General Challenges



Lack of modern equipment



Low literacy rates



Shortage of farmland



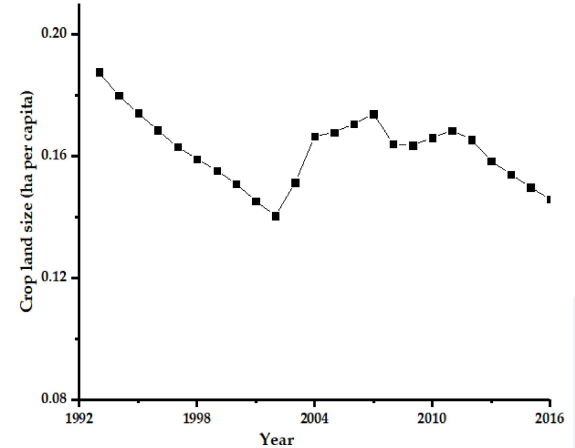
Pest and disease outbreaks



Land degradation/
soil erosion



Political instabilities.



Development of cropland area (per capita) in Ethiopia from 1993 to 2016. Source: MoARD, Taffesse et al., CSA [27,28,36].



SDG and the domain fundamentals



No-Poverty

Increase production



Zero-Hunger

Better food for everyone



Industry, Innovation and Infrastructure

New technology and agricultural education



Gender Equality

Same chances for everyone in agriculture field



Decent Work and Economic Growth

Opening new market and work opportunity

02

MARKET ANALYSIS





Problem Statement And Arguments



Lack of modern equipments & poor infrastructure.



Low **literacy** rate of citizens.

Stakeholder analysis

Stakeholder Name	Contact Person <i>Phone, Email, Website, Address</i>	Impact <i>How much does the project impact them? (Low, Medium, High)</i>	Influence <i>How much influence do they have over the project? (Low, Medium, High)</i>	What is important to the stakeholder?	How could the stakeholder contribute to the project?	How could the stakeholder block the project?	Strategy for engaging the stakeholder
Farmer		High	High	<ul style="list-style-type: none"> - Higher productivity - Easy for reaching market - Easy access for better equipment 	Agree for learning and using the more effective technology	- Do not follow the instructions	<ul style="list-style-type: none"> - Consultation and involvement - training and education programs tailored to their needs and preferences
Government		High	High	<ul style="list-style-type: none"> -Food security and economic development -Resource allocation and management 	<ul style="list-style-type: none"> -Provide support for infrastructure development and education programs - Give better incentive for private sector funding, when they help the project -Advocate for policies and regulations that support sustainable agriculture practices 	<ul style="list-style-type: none"> -Limited financial resources -Competing priorities - Bureaucratic obstacles 	-Partnership on infrastructure development initiatives.
Private sector - Agriculture Trading Finance Group		Medium	Medium	Support business growth, access to markets, and stable supply chains	Financing, technology and equipment provision, and partnerships with the public sector and civil society organizations.	Printing stories that oppose the new reforms	

Stakeholder analysis

Stakeholder Name	Contact Person <i>Phone, Email, Website, Address</i>	Impact <i>How much does the project impact them? (Low, Medium, High)</i>	Influence <i>How much influence do they have over the project? (Low, Medium, High)</i>	What is important to the stakeholder?	How could the stakeholder contribute to the project?	How could the stakeholder block the project?	Strategy for engaging the stakeholder
Young Volunteer that can speak local language and English	Robel, Susan	Low	Medium	- Extra income - Work experience	- Communicate and socialize with local people	- Do not register to become volunteer - Relaying wrong information to farmer	- Promoting the strategy if they become volunteer
Banks and financial institutions		High	High	-Profitability -Risk management -Regulatory compliance	-Provide credit and financial services to agriculture projects. -Help connect farmers and agribusinesses with markets and value chains.	Denying credit or financing to agricultural projects	Educate them about the importance of investing in agriculture and supporting sustainable agriculture projects
University and Researchers		Low	Medium	Conducting research that is relevant to the needs of the farmers and the agriculture sector	-Conducting research to identify appropriate technologies and practices that can be adopted to improve agricultural productivity -Develop and deliver training programs to farmers to enhance their knowledge and skills in modern farming practices.	They are unlikely to block the project, but they may raise concerns if the project is not based on sound scientific principles	Engage them to participate in project planning and implementation
Local and National Media		Low	High	-Good recognition -Income	-Advertisement -Raise awareness	They can't block the project but can possibly have negative impact	Encourage them to report on sustainable agricultural practices and benefits

Competitor Analysis

Strong government backing and support

Extensive network of field agents and partnerships

Limited focus on sustainability

Heavy reliance on donor funding

Strength

Weakness



Works to increase productivity and profitability of smallholder farmers by providing access to improved technologies, inputs, and markets.

Established partnerships with government and non-governmental organizations

Wide range of services to support farmers

Limited reach and scale of operations

Lack of effective marketing and outreach

Strength

Weakness



Provides a range of agricultural services including training, irrigation, and access to credit for smallholder farmers.

Competitor Analysis

Strong focus on environmental sustainability and conservation

High-quality and locally adapted seed varieties

Limited reach and scale of operations

Limited access to modern technologies and inputs

Strength

Weakness



Provides organic and sustainable seed varieties to smallholder farmers, as well as training and support for sustainable farming practices.

Organic and sustainable farming practices

Strong relationships with local farmers and suppliers

Higher prices compared to conventionally produced foods

Limited access to financing and investment

Strength

Weakness



GREENPATH
FRESH FROM ETHIOPIA'S HIGHLANDS

Greenpath Food is a worldwide food supplier of the highest quality organic, regeneratively-grown produce from small-scale East African Farms

References

- <https://www.usaid.gov/ethiopia/agriculture-and-food-security>
- CIA (Central intelligence agency) World Factbook, 2019;
<https://www.indexmundi.com>
- https://europa.eu/capacity4dev/project_psnp_ethiopia
- <https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=677&menu=1515>
- <https://www.ifpri.org/donor/ethiopian-agricultural-transformation-agency-ata>

References

- https://www.theglobaleconomy.com/Ethiopia/Employment_in_agriculture/
- <https://data.worldbank.org/?locations=ET>
- <https://www.usaid.gov/ethiopia/agriculture-and-food-security>
- International Monetary Fund. (2017). The Federal Democratic Republic of Ethiopia: Selected Issues. In [https://www.imf.org/\(9781484388662/1934-7685\)](https://www.imf.org/(9781484388662/1934-7685)). Retrieved February 16, 2023, from <https://www.imf.org/en/Publications/CR/Issues/2018/12/04/The-Federal-Democratic-Republic-of-Ethiopia-Selected-Issues-46435>
- Matouš, P., Y. Todo, et al. (2013). "Roles of extension and ethno-religious networks in acceptance of resource-conserving agriculture among Ethiopian farmers." *International Journal of Agricultural Sustainability* 11(4): 301-316.