

Bangladesh Agriculture: A Review of modern practices and proposal of a sustainable method

Nazifa Tabassum¹ , Fatema Rezwana²

¹Department of Environmental Sciences, Jahangirnagar University, Bangladesh

²Department of Environmental Sciences, Jahangirnagar University, Bangladesh

Introduction

- Modern sustainable agricultural methods approach to agricultural innovations and farming practices that increase farmer's efficiency and reduce the use of natural resources.
- Bangladesh agriculture is deteriorating due to degradation of land and water resources and the excess use of toxic chemicals.
- This is the reason the government of Bangladesh has adopted sustainable agricultural methods to protect the environment stability and economic profitability.

Objectives

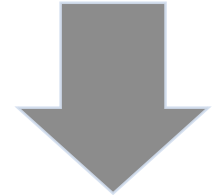
- To give a proper understanding about some of the modern practices in Bangladesh.
- To suggest a comparatively effective sustainable agricultural practice.

Methodology

Data collection from journals, article, paper etc.



Literature review



SWOT & PESTEL analysis

Modern practices used in Bangladesh

Crop Diversification

- Crop diversification is a cropping method that adds new crops to agricultural production on a specific farm
- Lessens farmers' reliance on a single crop and mitigates unforeseeable climate catastrophes .
- Uncommon due to a lack of market access; transportation, Established soil conditions etc.

Change in cropping pattern and rotations

- The distribution of a farm's land to various crops cultivated over the course of a year is referred to as cropping pattern.
- Essential measure of a locality's land use, environment, and socioeconomic elements.
- A yearly strategy for maximizing agronomic and economic production.

Integrated farming system

- Integration of various agricultural enterprises into the farming system has great potential in the agricultural economy .
- Reduce erosion risks.
- Requires high investments.

Polyculture & Crop rotation

- A conventional farming technique where crops are cultivated together on the same field, which is known as crop rotation and cultivating two or more crops at the same time in a same place is known as polyculture.
- Crops are grown using this methods because of its high productivity, high revenue level, and adaptability for combination management practices.
- polycultures offer better protection against soil deterioration and has a favourable economic impact.
- Using crop rotation, weeds and diseases can be controlled and pesticide consumption can be reduced.

Strengths

1. Prevent soil biodiversity loss
2. Reduce ground water contamination.
3. Rotations that do well without irrigation help conserve water.
4. Disrupt pest biology and control disease.

Weaknesses

1. Requiring tillage and ploughing has a negative impact on soil biodiversity.
2. Influence the emission of greenhouse gases.

SWOT Analysis

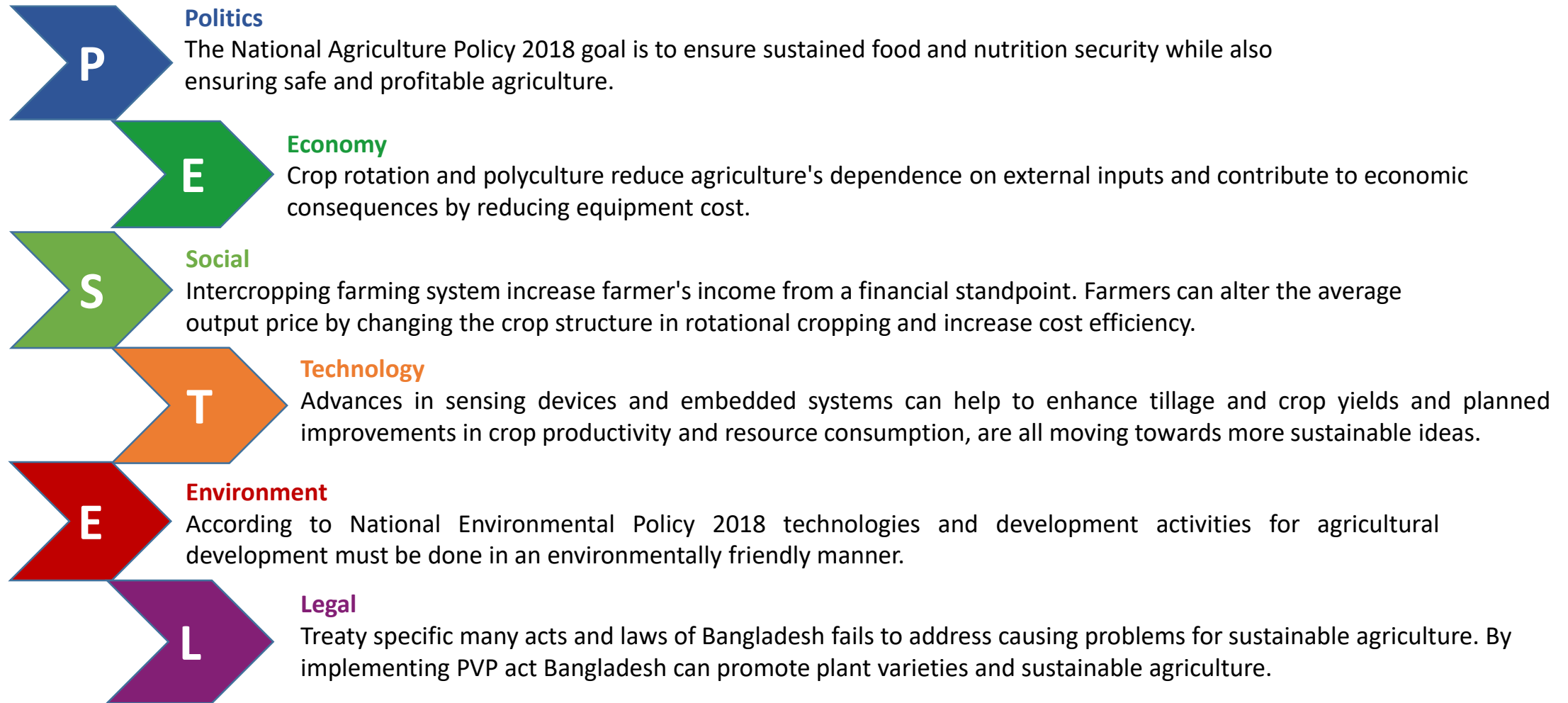
Opportunities

1. Rotations maintain a cover throughout the year benefit soil microbes and earthworms.
2. crops with high soil cover index reduce losses of water.
3. Beneficial if crops that require low or no N fertilization.

Threats

1. As a result of pesticide use, genetic diversity is reduced.
2. Crop with short vegetation period have a negative impact.

PESTEL Analysis



THANK YOU