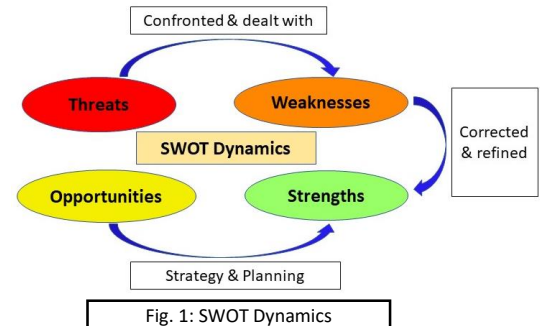


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Introduction

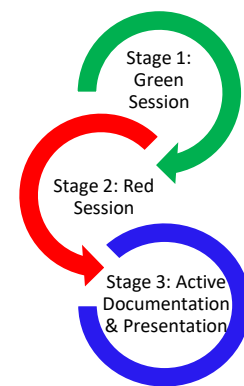
SWOT Matrix is an important participatory and strategic planning tool developed with the information from the end users of a technology/practice. This participatory tool identifies a lot of qualitative primary data on strengths, weaknesses, opportunities and threats (SWOT) existing in a locality where a new innovation has been planned without the need to collect an extensive data set for statistical analysis. These data can help in strategy development and policy formulation for promoting the smooth implementation of the technology.

The objective of conducting a SWOT Matrix in New Alluvial Zone of West Bengal, India before implementing conservation agriculture (CA) practices is to identify beneficial strategies and policies, helping farmers in easy adoption of the practices.



Methodology

- Seven Focus Group Discussions (FGDs) in seven villages under New Alluvial Zone in West Bengal were organized.
- Ten farmers per group with multilayer socio-ecological backgrounds were involved
- Total respondents 70, representing 7 micro-ecological situation, were involved
- Two step data collection process – Brainstorming followed by active documentation were followed



Findings

Table 1: SWOT Matrix of Conservation Agriculture in New Alluvial Zone of West Bengal

CA Principles	Strengths	Weakness	Opportunities	Threats
Minimum soil disturbance	<ul style="list-style-type: none"> • Reduce cost of cultivation • Stops soil erosion 	<ul style="list-style-type: none"> • Inherent belief on tillage practice • Clayey texture clogs machineries • Fragmented and disparity in land holding 	<ul style="list-style-type: none"> • Improving soil health with enhanced productivity • Soil organic carbon status can be restored 	<ul style="list-style-type: none"> • Resistance in acknowledging tillage benefits • Lack of curated farm machineries • Poor financial resources
Permanent soil cover	<ul style="list-style-type: none"> • Abundance of crop residues • Less competition in alternative uses 	<ul style="list-style-type: none"> • Lack of skilled technicians to run machineries • Problem of termites in soil 	<ul style="list-style-type: none"> • Increase in soil organic carbon pool • Proper fertilizer management 	<ul style="list-style-type: none"> • Unwilling to compromise on 'extra income' • Burning saves money
Crop Diversification	<ul style="list-style-type: none"> • Already diversified cropping system • Market is available 	<ul style="list-style-type: none"> • Performance of every crop is still debatable 	<ul style="list-style-type: none"> • Improved soil health and also income • Environment friendly and effective method to break pest and disease cycle 	<ul style="list-style-type: none"> • Strict adherence to other principles might not apply to all crops

Table 2: SWOT Matrix on Existing Reality of New Alluvial Zone of West Bengal

Strengths	Weaknesses	Opportunities	Threats
<ul style="list-style-type: none"> • Plentiful natural resources • Experimental farmers • High crop diversity and cropping intensity • Easy inputs availability 	<ul style="list-style-type: none"> • Land rest period is almost nil • External input intensive agriculture • Fatigued soil resources • Deficiencies of nutrients 	<ul style="list-style-type: none"> • International market channels • Easy availability of finance – banks and cooperatives • Improved practices • Educated yet unemployed rural youths 	<ul style="list-style-type: none"> • Depleting groundwater resources • Arsenic contaminated ground water • Depletion in soil organic C • Deteriorating soil health

Key Conclusions

- Intensive participatory training and monitoring of CA at community level can go in an effective and sustainable way
- Micro level market analysis, segment wise and location wise, can translate opportunities into strengths
- Farmers' participatory demonstration and experimentation on different aspects of CA offer motivation and experiential skill for the farmers
- Unless weaknesses like beliefs and prejudices, confusions and prefixed ideas are eliminated through action learning process, the desired benefits cannot be accrued