Climate change and agriculture

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Stakeholder adaptation

- Objective of the strategy: To minimize impacts of a warmer and drier climate while maintaining rural agricultural production and minimizing the environmental damage
- Consideration of effectiveness to minimize the impacts of a warmer and drier climate, cost, and feasibility
- Adequacy for situation without climate change (win-win strategy)

Valuation of attributes of each option

<table>
<thead>
<tr>
<th>Value</th>
<th>A Assistance required for adoption</th>
<th>B Effectiveness for climate change</th>
<th>C Cost</th>
<th>D Feasibility</th>
<th>E Adequacy for current situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>non feasible</td>
<td>highly inadequate</td>
</tr>
<tr>
<td>1</td>
<td>very low</td>
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<td>very low</td>
<td>very low</td>
<td>inadequate</td>
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<tr>
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<td>low</td>
<td>low</td>
<td>low</td>
<td>low</td>
<td>somewhat inadequate</td>
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<tr>
<td>3</td>
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<td>medium</td>
<td>medium</td>
<td>medium</td>
<td>indifferent</td>
</tr>
<tr>
<td>4</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>adequate</td>
</tr>
<tr>
<td>5</td>
<td>very high</td>
<td>very effective</td>
<td>very high</td>
<td>very high</td>
<td>very adequate</td>
</tr>
</tbody>
</table>

Examples of adaptation strategies

1. Tactical advice on changes in crop calendar
2. Tactical advice on changes in water needs
3. Improve cash return for water and land units
4. Management of risk in water availability
5. Investment in irrigation technology; Mechanisms of risk-sharing (e.g., insurance)
6. Integrated resource management for water and land
7. Education on water-saving practices and changes in crop choices
8. Private sector participation in development of agro-businesses
9. Alternatives for the use of natural resources and infrastructure
10. Crop residue incorporation
11. Access to fertilizer
12. Agricultural extension services, understanding of stresses and responses
13. Indigenous knowledge/coping strategies
14. Use of short-duration rice varieties
15. Crop diversification and crop rotation
16. Introduce new crop varieties
17. Introduce new crops
18. Agroforestry
19. Food storage
20. Agrometeorological advice to farmers
21. Construction of a dam
22. Irrigation (new scheme)
23. Irrigation (improved system)
24. Water harvesting
25. Desalination / reutilization plant
26. Cease activity

* Comments