Stakeholders Consultative Workshop for Priorities Setting

Opportunities, Needs and Potential
Agricultural Innovations Phase-II
Findings from Sindh
Outline

- Workshop Brief Overview
- Overall Key Findings (Need Assessment Analysis)
- Group Wise Key Findings
- Input/Comments/Suggestions
Sindh Stakeholders Distribution

- Farmers: 24%
- Universities: 5%
- NGOs: 7%
- Government Employees: 64%
Methodology: Needs Assessment Analysis

• Frequency Based Need Assessment analysis
• Weighting Score Based Need Assessment Analysis

\[ W_s = [F_1 \times W_1] + [F_2 \times W_2] + [F_3 \times W_3] \]
# Frequency and Weighting score based Need Assessment Analysis

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Issue/Problem</th>
<th>Frequency</th>
<th>Rank</th>
<th>Weighting Score</th>
<th>Rank</th>
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<tr>
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<td>Seed</td>
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<td>Marketing and post harvest handling</td>
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<td>5</td>
<td>Weeds, insect pest and diseases</td>
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<td>34</td>
<td>4</td>
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<td>6</td>
<td>Livestock Management vet services</td>
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<td>7</td>
<td>Less yield/low productivity</td>
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<td>6</td>
<td>10</td>
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<td>Fodder Scarcity/Shortage</td>
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<td>Laser Land Leveling</td>
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<td>8</td>
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<td>10</td>
<td>Malnutrition/Hunger</td>
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<td>9</td>
<td>6</td>
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<td>11</td>
<td>Aflatoxin</td>
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<td>6</td>
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<td>Climate Change</td>
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Group Wise Key Findings
Group 4: Livestock

1. Breed Improvement

Issues

- Low Productivity
- Low Price/Selling cost
- Less Income of Farmer
- Lack of Farmer Interest

Solutions

- Breeds wise registration (Tagging)
- Identify genetic potential of bulls/bucks/rams
- Artificial Insemination Quality Services
- Selection and Culling of animals
- Organic basis registration
- Organic milk, meat and hilal certification
- Capacity Building
Group 4: Livestock

2. Nutrition

Issues

– Shortage of fodder in extreme weather
– Lack of fodder/nutrition analysis facilities
– Adoptability to new research

Solutions

– Tree plantation like moringa
– Plantation of saline resistant fodder and trees
– Drought resistant fodder and trees
– Preservation of fodder silage/hay
– Establishment of nutrition analysis labs at division level
– Capacity Building
– Hydroponic Fodder
Group 4: Livestock

3. Livestock Management

Issues

- Improper farm structures
- Lack of farm management knowledge
- Improper record keeping

Suggestions

- Establishment of model farm for demonstration at community level
- Preparing extension agents specially women from local community
- Training on livestock management
- Tagging for proper record keeping
Group 4: Livestock

4. Animal Health Management

Issues

- Outbreaks
- Lack of emphasis on prevention measures

Suggestions

- Seasonal Vaccination
- Quality Vaccine
- Proper handling of vaccines
- Cold chain maintenance
Group 3: Fruits and Vegetables

1. Fruit Fly (Guava, Jujube, Mango)
   - Biological control with the support of government for farmers to control fruit fly

2. Poor Quality Seed (Dates, Banana)
   - Tissue culture plants labs establishment

3. Post-harvest management (Tomato up to 40 percent/Others Fruits and Vegetables)
   - Awareness about post-harvest management
   - Pulp extraction units in major growing areas
   - Establishment of value addition and processing units along with cold storage facility and marketing strategy

4. Sudden Death of Mango
   - Research based solution
Group 3: Fruits and Vegetables

5. Poor Transportation from Farm to Market (especially Mango growing areas)
   – To provide required transportation and management

6. Fruits and Vegetables Processing Waste (Up to 40 percent)
   – Food processing waste management and proper utilization at food industries

7. Residual effects of Chemicals
   – Develop organic farming technology and create awareness in Marketing

8. Aflatoxins (Chilli)
   – Establishment of dehydration plants
   – Provision of drying mates and other necessary equipments/tools
Group 3: Fruits and Vegetables

9. Low Yielding/Quality Varieties
   – Establishment of national level Banana Research Institute

10. Upgradation of Agriculture Extension Services
    – Problematic ratio of agriculture extension agent and farmer
    – Unavailability of good techniques
    – ICT agriculture extension services
    – Farmer participatory/Adaptive Research
Group 2: Oil Seeds and Pulses

1. Seed Quality
   – Local hybrids to be developed and introduced

2. Seed Price
   – Prices should be subsidized and controlled

3. Timely Availability of Seed
   – The timely availability of seed needs to be ensured

4. Nutritional Management
   – Research on nutritional management/participatory approach

5. Poor Seed Planters
   – Pneumatic planters should be introduced
   – Local solvent plants

6. Marketing Issue
Group 2: Oil Seeds and Pulses

7. Lack of Awareness
   – *Awareness campaign*

8. Production Technology
   – *Need management/selected weedicides*

9. Crop Rotation
   – *Wheat water Rice*

10. Marketing Issue
    – *Government procurement/value addition*
Group 1: Cereal and Cereal Systems

1. Non-availability of quality seed
   - Strengthening Seed Certification
   - Public Private Partnership
   - Farmers Seed Groups
   - Monitoring of Hybrid Seed Quality

2. Malnutrition (Zn and Iron)
   - Bio fortified Rice and Wheat Varieties
   - Foliar Supplement of Nutrients to crops

3. Water Shortage
   - Lining of water courses
   - Laser Land Leveling
   - Water Saving Techniques (Bed/Ridge Planting)
   - Agro-Forestry/Low Delta Crops
Group 1: Cereal and Cereal Systems

4. Crop Residues Burning (Sugarcane Trash/Banana)
   - Use of waste for Mulching/compositing

5. Weed Management
   - Farmers training/Awareness
   - Quality control of Herbicides

6. Lack of Mechanization
   - Dry seeding of Rice
   - Drill planting and zero tillage in wheat
   - Development of early maturing crops
THANKS
Input/Comments/Suggestions