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PREAMBLE-RAINFED AREAS

OBJECTIVE- HIGHLIGHTS

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APPROACH- FEATURES- OPTIONS

ILLUSTRATIONS

INSTITUTIONS-IMPLEMENTATION-OUTCOME

WHY RADP AS A SEPARATE SCHEME

COMPONENTS-ASSISTANCE
PREAMBLE

- The Food Bowl of India (North West) is becoming Unsustainable
- Groundwater Depletion and Climatic Variability threatens Food Security
- India Needs to Sustain Agricultural Growth to ensure Food Security
- Urgent need for ‘Second Green’ revolution from ‘RAINFED AREAS’
- Are Rainfed Areas Prepared?
RAINFED AREAS

NATURAL

Erratic Rainfall, Floods, Droughts, Inadequate Irrigation Infrastructure

Land Degradation, Poor Soil Fertility

SOCIO-ECONOMIC

Small Land Holdings, Poor Farmers

Lower Credit off take

Poor Socio-Economic growth, Illiteracy, Poverty

High Risk

Less Investment in Inputs

Low Productivity

Under developed Market Infrastructure, Poor Post Harvest Management

High Risk-Low Yield Business
**Rainfed Areas**

- **Wider Spatial Coverage**
  - Rainfed agro ecologies cater to Rice, Coarse Cereals, Pulses, Oil seeds, Cotton besides Plantation Crops

- **Harnessing untapped potential**
  - 12 m. ha is under mono crop rice
  - Water Resources (Ground Water, Rainfall)
  - Scope for productivity enhancement

- **Need of the Hour**
  - Mitigating the Risks
  - Crop Diversification
  - Farmer Centric Interventions
  - A new Scheme focusing on development of Rainfed farming system
OBJECTIVES

- To Transform rain-fed agriculture into **Low Risk- High Yield activity**:
  - Improving agricultural productivity in a sustainable manner
  - Mitigating the Risks associated with Climatic Variability

- Presenting more options for enhancing income generation

- Convergence
HIGHLIGHTS

- Farmer Centric Approach
- Opening up Farming System
- Composite Farming
- Maximizing Farm Income
CATCHMENTS

WATERSHED

NFSM

NREGA

RKVY
COVERAGE

- Arid
- Semi-Arid
- Sub Humid
- Backward Humid
APPROACH

Prosperity

Maximizing Value

Harnessing Potential

Location Specific Farming System
Institutional Support
Diversification

Energizing Rural Economy
FEATURES

Clusters

Convergence

Technology

Skills
## OPTIONS

### Crop based
- Rice- fish farming system
- Cropping system+ fish + poultry/Duck
- Cereal crops+ Fiber crops/ root crops+ LS
- Cropping system + horticulture+ Silvipasture

### Livestock based
- Dairy/goat + Cropping system + aquaculture
- Livestock + Silvipasture
- Small ruminants+ Cropping system
- Livestock + Horti+ Crops

### Horticulture based
- Hort.+ Crops +Cattle/dairy
- Hort.+ fishery+ apiculture + Crops
- Hort.+ Crops +Floriculture+ apiculture
- Hort.+ fish+ Poultry/duck
- Horti+ pasture+ livestock

### Fish based
- Sericulture+ fishery+ Crops
- Poultry+ fish + Crops
- Cattle+ fishery +fodder/Crops
- Pig+fishery+ fodder/ Crops
- Goat+ fish +fodder
- Rabbit+ Fishsery + fodder

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**Creating More Choices**
ILLUSTRATIONS

- Farm pond
- Crops & plants
- Mandi
- Live Stock
- Bio digester

Integration
ILLUSTRATIONS

Mixed Cropping
ILLUSTRATIONS

Horticulture fish integrated system
ILLUSTRATIONS

Livestock based Farming System
INSTITUTIONS

National
- Empowered Committee (EC) chaired by Secretary (A&C)
- JS(RFS): Convener of EC
- EC to approve proposals of States based on Priority
- Decide allocation to States

State
- Consultant in Farming System / Cropping System engaged for RADP
- State Level Action Plan by integrating DAP
- Approved & recommended by SLSC

District
- Implementing Agency: SHG/NGO/CO-OPERATIVES/ATMA coordinated by concerned Line Dept.
- 1 FSS & 4 Project Coordinator (to cater cluster of villages)
- At least 1 model Project by SAU/ICAR/Prof. Agencies
IMPLEMENTATION

PLANNING
DAP / SAP / SLSC

EXECUTING
STATE LINE DEPT

MONITORING
BENEFICIARY CARD

CO-ORDINATING
NGO/SHG/CO-OPERATIVES/ATMA

SUPPORT PROVIDER
PANCHAYAT/ KVK /SAU / ICAR/ WATERSHED COMMITTEES
OUTCOME

Energizing Rural Economy

Resilience to Climate Change

Reversing Migration
**Why RADP as A Separate Scheme?**

<table>
<thead>
<tr>
<th>IWMP</th>
<th>RADP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective:</strong> Restore Ecological Balance by harnessing, conserving and developing degraded natural resources</td>
<td><strong>Objective:</strong> Improving Quality of life of farmers especially Small and Marginal farmers through a package of activities</td>
</tr>
<tr>
<td><strong>Outcome:</strong> Prevention of Soil Runoff, regeneration of natural vegetation, rainwater harvesting, recharging of groundwater</td>
<td><strong>Outcome:</strong> Higher income to farmers, higher agricultural production and mitigating the risk of climate change</td>
</tr>
</tbody>
</table>
# Why RADP as A Separate Scheme?

<table>
<thead>
<tr>
<th>IWMP</th>
<th>RADP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Focus:</strong> Natural Resources</td>
<td><strong>Focus:</strong> Farming System</td>
</tr>
<tr>
<td><strong>Approach:</strong> Area Development</td>
<td><strong>Approach:</strong> Farmers’ Centric</td>
</tr>
<tr>
<td><strong>Coverage:</strong> Primarily Waste and Degraded Lands <em>(Non Arable)</em></td>
<td><strong>Coverage:</strong> All Rainfed areas <em>(Arable)</em></td>
</tr>
</tbody>
</table>

RADP aims at leveraging the outcome of other schemes and make use of the developed natural resources of IWMP and other development programmes for increasing the production and productivity of Rainfed areas as watershed plus measures.
## COMPONENTS & PATTERN OF ASSISTANCE

<table>
<thead>
<tr>
<th>Sl</th>
<th>Activity</th>
<th>Cost</th>
<th>Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rice based Cropping system</td>
<td>Rs. 40,000/ha</td>
<td>25%, limited to Rs. 20000/farmer &amp; Rs. 6000/ha for rice-rice</td>
</tr>
<tr>
<td>2</td>
<td>Coarse cereal based Cropping system</td>
<td>Rs. 20,000/ha</td>
<td>25%, limited to Rs. 10000/farmer</td>
</tr>
<tr>
<td>3</td>
<td>Oilseed based Cropping system</td>
<td>Rs. 30,000/ha</td>
<td>25%, limited to Rs. 15000/farmer</td>
</tr>
<tr>
<td>4</td>
<td>Fibre based Cropping system</td>
<td>Rs. 40,000/ha</td>
<td>25%, limited to Rs. 20000/farmer</td>
</tr>
<tr>
<td>5</td>
<td>Pulses based Cropping system</td>
<td>Rs. 20,000/ha</td>
<td>25%, limited to Rs. 10000/farmer</td>
</tr>
<tr>
<td>6</td>
<td>Horticulture Based farming system</td>
<td>Rs. 50,000/ha</td>
<td>50% limited to Rs. 50000/farmer. Boundary plantation: Rs. 25/plant in the 1st year &amp; Rs10/survived plant/yr for 3 yrs</td>
</tr>
<tr>
<td>Sl</td>
<td>Activity</td>
<td>Cost</td>
<td>Assistance</td>
</tr>
<tr>
<td>----</td>
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<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>7</td>
<td>Tree/ Silvi-Pastoral</td>
<td>Rs. 30,000/ha</td>
<td>50%, limited to Rs. 30000/farmer. Boundary plantation: Rs. 15 / plant in the 1st year &amp; Rs. 5/survived plant/yr for 3 yrs</td>
</tr>
<tr>
<td>8</td>
<td>Livestock based farming system</td>
<td>Rs. 80,000 with 2 animals + 1 ha CS</td>
<td>50% limited to Rs. 40,000/farmer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rs. 50,000 (10 animals / 50 birds + 1 ha CS)</td>
<td>50% limited to Rs. 25000/farmer</td>
</tr>
<tr>
<td>9</td>
<td>Fishery based farming system</td>
<td>Rs. 75,000 / ha with &amp; Rs. 40,000 / ha without pond</td>
<td>50% limited to 2 ha per farmer</td>
</tr>
<tr>
<td>10</td>
<td>Bee Keeping</td>
<td>Rs. 3500/ colony</td>
<td>50% limited to 12 colonies per 2 ha farm</td>
</tr>
<tr>
<td>11</td>
<td>Silage making for increased availability of green fodder</td>
<td>Silo Rs. 40,000 Equip Rs. 25000 W0rk Cap Rs.12000</td>
<td>75% for group efforts and 25% for individual</td>
</tr>
<tr>
<td>12</td>
<td>Seed Production mainly for Coarse cereals, Pulses, oil seeds &amp; vegetables</td>
<td>Project based with a limit of Rs. 50,000/ha (As per prevailing schemes)</td>
<td>100% assistance to Public Sector Org / SAU and 50% to growers association/ farmer’s company/ groups/individuals with credit linked back ended subsidy.</td>
</tr>
<tr>
<td>Sl</td>
<td>Activity</td>
<td>Cost</td>
<td>Assistance</td>
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<td>----</td>
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<td>------------------------------------------------</td>
</tr>
<tr>
<td>13</td>
<td>Poly house</td>
<td>Rs. 1 lakh/ acre</td>
<td>50% maximum upto Rs. 50000</td>
</tr>
<tr>
<td>14</td>
<td>Water Harvesting and Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Construction of farm ponds</td>
<td>Rs. 6000/ 100m³ (Un lined)</td>
<td>50% limited to Rs. 30,000 only if not possible through convergence</td>
</tr>
<tr>
<td></td>
<td>Lining of tanks/ponds</td>
<td>As per estimate</td>
<td>50% to maximum of Rs. 30,000</td>
</tr>
<tr>
<td></td>
<td>Community tank</td>
<td>Up to Rs. 5 lakh</td>
<td>75%, if not possible through convergence</td>
</tr>
<tr>
<td></td>
<td>Shallow tubewells</td>
<td>Rs. 25000</td>
<td>50%, if not possible through convergence</td>
</tr>
<tr>
<td></td>
<td>Bore-well</td>
<td>Rs. 20000</td>
<td>50% limited to Rs. 10,000</td>
</tr>
<tr>
<td></td>
<td>Restoration/ Renovation of tank</td>
<td>As per estimate</td>
<td>50% limited to Rs. 10,000</td>
</tr>
<tr>
<td></td>
<td>Recharge of defunct bore well</td>
<td>As per estimate</td>
<td>50% limited to Rs. 4000 per one unit</td>
</tr>
<tr>
<td></td>
<td>Pipe/pre-casted distribution system</td>
<td>Rs. 20000/ha</td>
<td>50% limited to 4 ha per farm family</td>
</tr>
<tr>
<td></td>
<td>Water Lifting (Electric/ Diesel/ Wind/Solar)</td>
<td>Up to Rs. 20000</td>
<td>50% limited to one unit for one farm family</td>
</tr>
<tr>
<td></td>
<td>Pressurized / micro irrigation</td>
<td>As per MI Scheme</td>
<td>Pattern of Assistance as per MI Scheme of DAC</td>
</tr>
<tr>
<td>Sl</td>
<td>Activity</td>
<td>Cost</td>
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</tr>
<tr>
<td>----</td>
<td>----------------------------------------------</td>
<td>-------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>15</td>
<td>In-situ moisture conservation</td>
<td>Rs. 5000/ha</td>
<td>90% limited to 2 ha/farmer</td>
</tr>
<tr>
<td>16</td>
<td>Nutrient Management</td>
<td></td>
<td>50% limited to Rs. 4000/farmer Rs.1000/ha</td>
</tr>
<tr>
<td>17</td>
<td>Post harvest &amp; Storage</td>
<td>Up to Rs. 1,00,000</td>
<td>25% to growers association/ farmer’s company/ group of farmers with credit linked back ended subsidy.</td>
</tr>
<tr>
<td>18</td>
<td>Farm Machinery Bank</td>
<td>Rs. 20 lakh</td>
<td>Prevailing subsidy pattern but limiting to Rs. 10 lakhs per unit.</td>
</tr>
<tr>
<td>19</td>
<td>Crop insurance</td>
<td>Premium amount</td>
<td>for first 2 years</td>
</tr>
<tr>
<td>20</td>
<td>Conveyance to storage/marketing</td>
<td>Tempo Rs.1 lakh</td>
<td>25% subsidy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>pick up van Rs.6</td>
<td>-do-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>lakh</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Management State level</td>
<td>Admin./Cont/Consultants Capacity Building Awareness/Ex/WS/Conf Admin/Cont/Consultancy</td>
<td>10% of Annual Exp 4% of Annual Exp 1% of Annual Exp Rs. 4 Crores /year</td>
</tr>
<tr>
<td></td>
<td>National level</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
THANK YOU
Harnessing Potential

- **High potential rainfed areas**: Horticulture and Plantation based farming system

- **Sub humid regions**: Fishery based farming system

- **Arid and semi arid regions**: Livestock based farming system

- **Problem soils**: Farming system with livelihood support activities
**Mixed & Composite Farming**

- **Horizontal layer**
  - The farm land is divided in to different sections to carry out different farm operations. It may be also in strips with in a plot

- **Vertical layer**
  - Below the trees plants not direct sunlight-needy. Below these plants, crops that need very little or no sunlight. Creepers on plants etc.

- **Use of arable and non arable land as one unit**
  - Cultivation in arable land, non- arable land used for pastures, shrubs, livestock farm, infrastructure etc.
## Coverage Details

<table>
<thead>
<tr>
<th>Zone</th>
<th>Ecology</th>
<th>States</th>
<th>Dist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arid</td>
<td>&lt;500 mm Rainfall</td>
<td>7 (AP, Gujarat, Haryana, J&amp;K, Karnataka, Punjab, Rajasthan)</td>
<td>31</td>
</tr>
<tr>
<td>Semi-Arid</td>
<td>500-750mm Rainfall</td>
<td>12 (AP, Gujarat, Haryana, HP, J&amp;K, Karnataka, MP, Maharashtra, Punjab, Rajasthan, TN, UP)</td>
<td>133</td>
</tr>
<tr>
<td>Sub Humid</td>
<td>750-1150 mm Rainfall</td>
<td>15 (AP, Bihar, Chhatisgarh, Gujarat, HP, J&amp;K, Jharkhand, Karnatak, MP, Maharashtra, Orissa, Uttarakhand, UP, TN, WB)</td>
<td>175</td>
</tr>
<tr>
<td>Backward Humid</td>
<td>&gt;1150 mm Rainfall</td>
<td>9 (Kerala, 7 NE States, Sikkim)</td>
<td>85</td>
</tr>
</tbody>
</table>