

Land Degradation and its Management in India



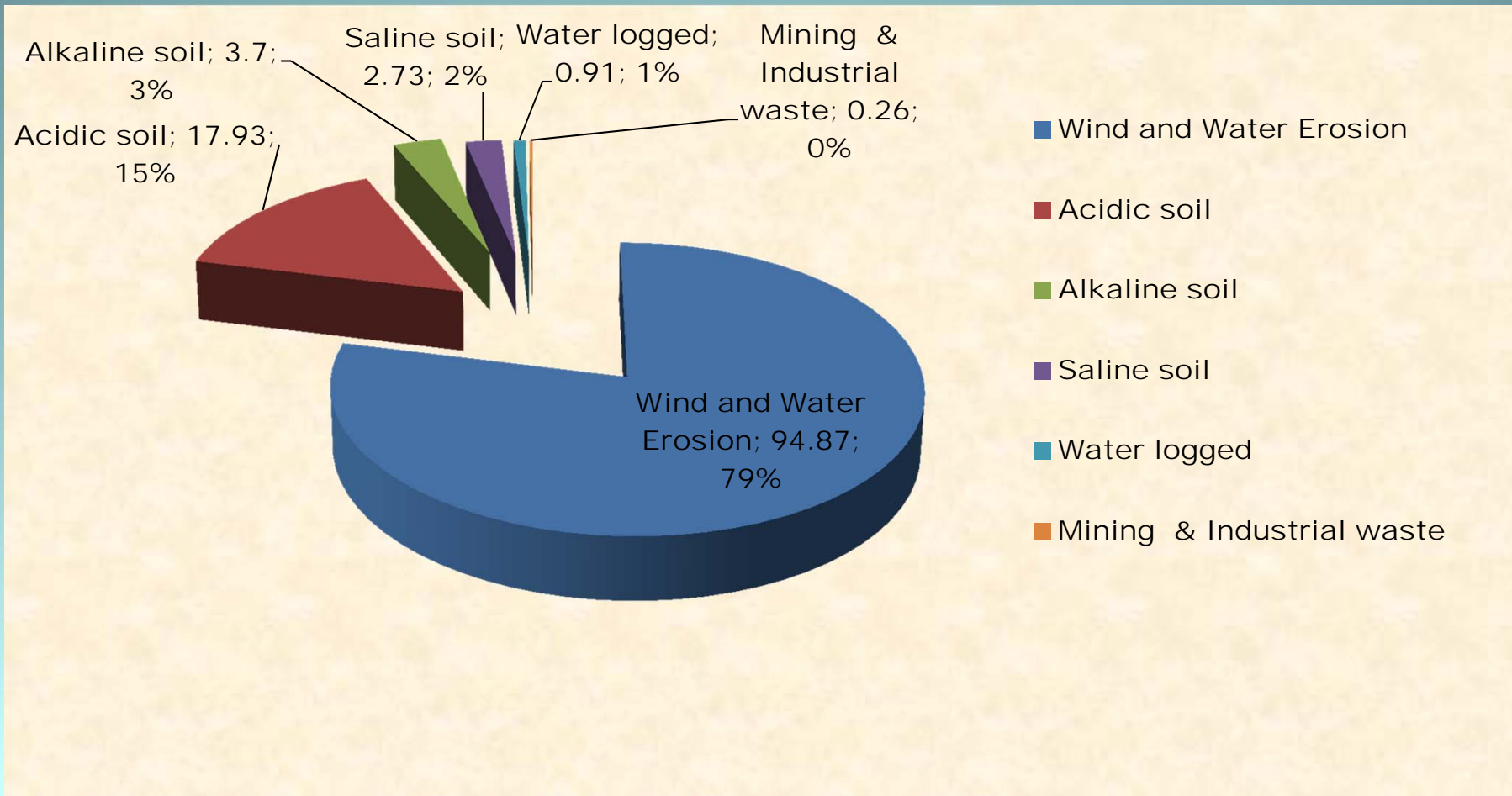
Encarta Encyclopedia, Dinodia Picture Agency

C.M.Pandey
Additional Commissioner
Government of India
Ministry of Agriculture
Department of Agriculture & Cooperation
New Delhi, India.

Land Degradation Scenario of India-2010-11

Sl. No.	Type of degradation	Area in m.ha	Percentage of Total Degraded land
1	Wind and Water Erosion	94.87	79
2	Acidic soil	17.93	15
3	Alkaline soil	3.70	3
4	Saline soil	2.73	1.8
5	Water logged	0.91	1
6	Mining & Industrial waste	0.26	0.2
	Total	120.40	100.0

Land Degradation Scenario of India



Total degraded land (2010-11) is 120.40 m.ha

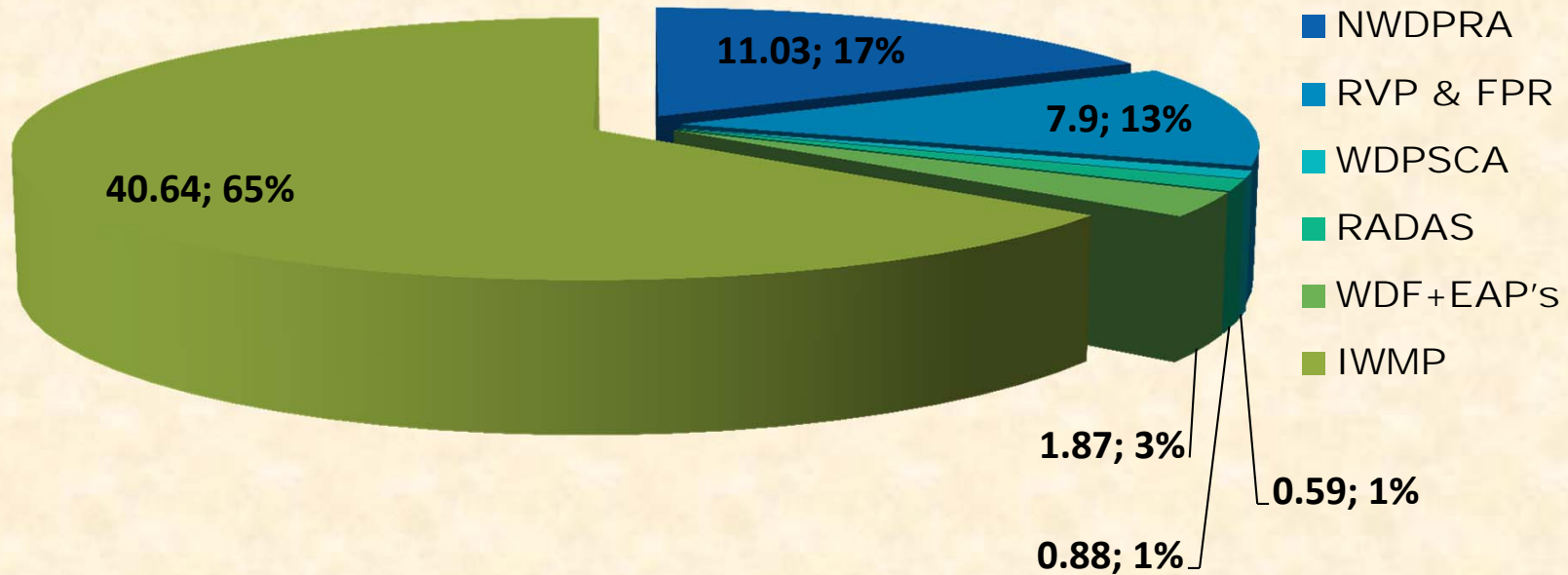
Major Programmes of Government of India for Degraded Land Development

- Department of Agriculture & Cooperation (DAC)
 - National Watershed Development Projects for Rainfed Areas (NWDPA)
 - River Valley Project and Flood Prone River (RVP & FPR)
 - Watershed Development Projects for Shifting Cultivation Areas (WDPSCA)
 - Reclamation and Development of Alkali and Acid Soils (RADAS)
- Department of Land Resources (DoLR)
 - Draught Prone Area Programme (DPAP)
 - Desert Development Programme (DDP)
 - Integrated Wasteland Development Project (IWDP)
 - DPAP, DDP and IWDP have been merged together in 2010 and renamed as Integrated Watershed Management Programme (IWMP)

Achievements of Degraded Land Programmes of GoI (DAC & DoLR) upto March, 2013

S. No	Name of Scheme	Area Treated (million Ha.)	Investment (Rs. crore)
Department of Agriculture & Cooperation (DAC)			
1	NWDPRRA	11.03	4499.9
2	RVP & FPR	7.91	3581.7
3	WDPSCA	0.59	505.8
4	RADAS	0.91	195.1
5	EAPs	2.41	4351.5
	Total (DAC)	22.85	13133.9
Department of Land Resources (DoLR)			
1	IWMP (DPAP, DDP & IWDP)	59.19	18442.1
	Grand Total	82.04	31576.1

Programme-wise Degraded Land Developed upto March 2013 (in m.ha)



Major Impacts of Land Degradation Programmes

- Prevention of soil erosion and land degradation ;
- Reduction of peak rate of runoff and, sediment yield;
- Creation of water resources/bodies, and augmentation of ground water;
- Improvement of soil fertility and productivity for ensuring higher income;
- Increasing cropped area and cropping intensity, besides crop diversification; and
- Creation of additional employment opportunities in rural areas.

Plan for Degraded Land Development by 2030 (entire leftover degraded land)

Name of Departments	Programme for 15 years (2015-2030)	
	Physical (m.ha)	Financial (Rs. Cr.)
Department of Agriculture & Cooperation	30.00	60000.00
Department of Land Resources	82.00	164000.00
Total (INR)	112.00	224000.00
Amount in Million US Dollar		36129.03

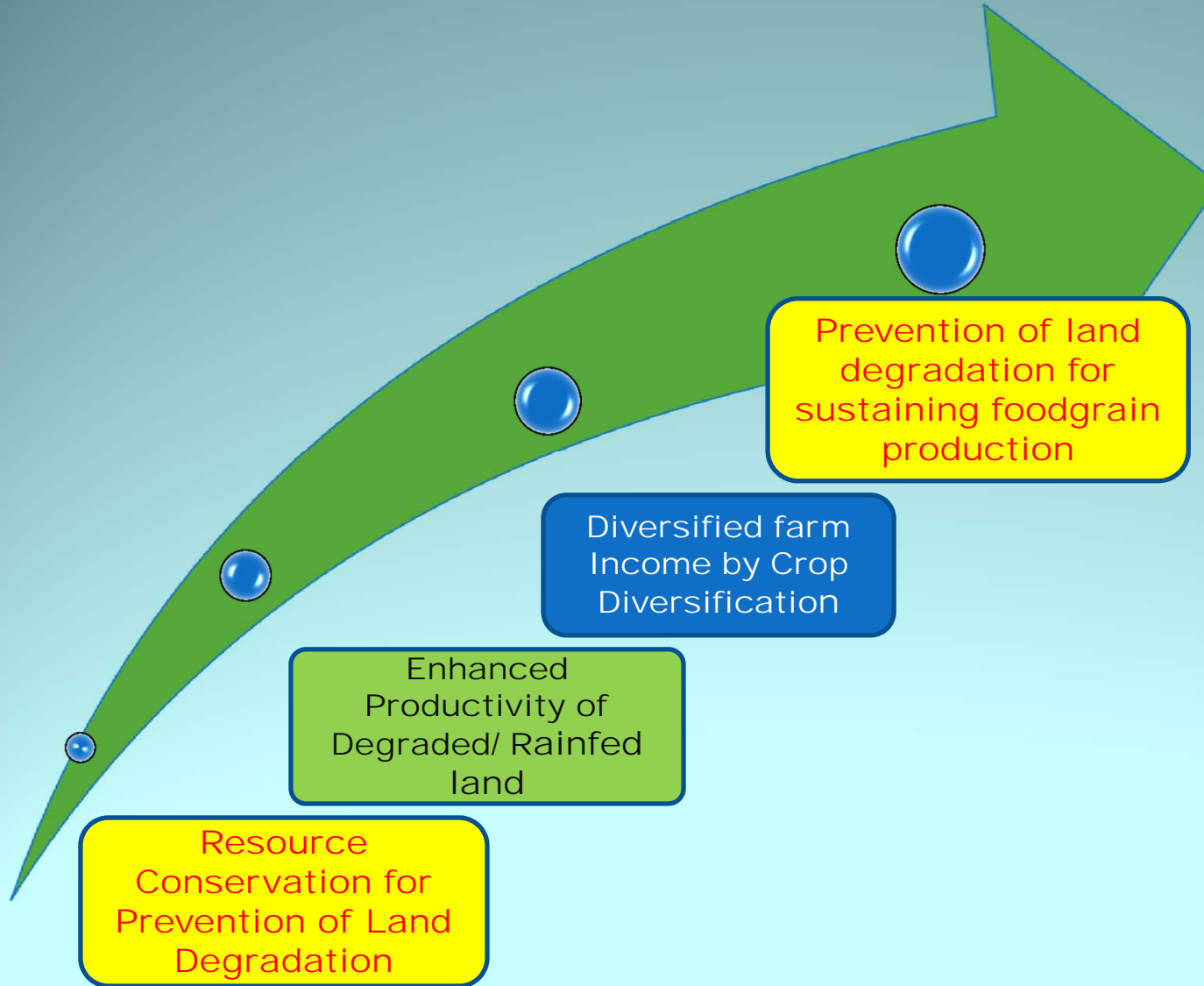
Strategy & Objectives of Degraded Land Development for Enhancing Agriculture Production

1. To make agriculture productive, sustainable/ remunerative and climate resilient;
2. To conserve on-farm resources through appropriate resource conservation technologies;
3. To optimize utilization of water resources through efficient water management;
4. To adopt comprehensive soil health management practices based on soil fertility status;
5. To pilot models in select blocks by mainstreaming rainfed technologies and leveraging resources ;
6. To develop capacity of farmers & stakeholders in the domain of climate change adaptation and mitigation measures;
7. To establish an effective co-ordination for prevention of land degradation for sustaining foodgrain production in the country; and
8. Crop Diversification for enhancing farmer's Income & also for ensuring use of land as per its land capability.

New Interventions to address the issue of Land Degradation

- Resource Conservation Technologies;
- Reclamation of problem soil;
- Rainfed Area Development(RAD);
- Organic village/cluster and participatory organic certification;
- Soil Health Management and SHC;
- Rainwater conservation and secondary storage structure under PMKSY;
- Promotion of Agroforestry ;
- Portable soil testing kit;
- Soil Resource Data Bank creation; and
- Conservation & Management of Agroforestry on Bunds/wastelands.

Land Degradation Neutralisation for Sustainable Agriculture





Thanks

