RESOURCE MANAGEMENT IN RAINFED DRYLANDS

Rainfed Dryland Agriculture in India : An Overview

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Rainfed drylands are areas with less than 800mm annual rainfall, where crop production depends entirely on rain water

The important natural resources that support the production system in drylands are: **Soil, Water and Vegetation**

Improper use and misuse of these resources over the years have made these lands less productive

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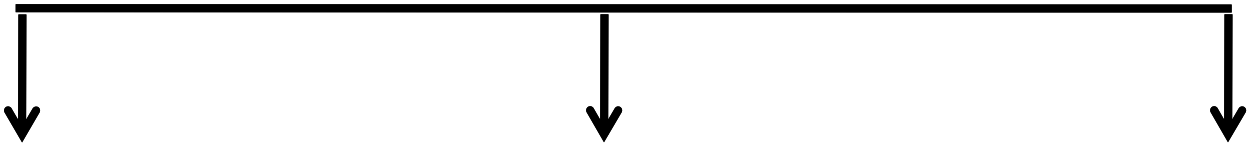
Rainfed dryland
is synonymous with



Dry farming **Dryland farming** **Rainfed farming**

Above terms are used synonymously to indicate similar farming situations, but clearly all the three exclude irrigation.

Dry farming

- Cultivation of crops in regions with annual rainfall less than 750mm
- Crop failure is most common due to prolonged dry spells
- Growing season (period of adequate soil moisture) less than 75 days
- Moisture conservation practices are necessary for crop production

Dryland farming

- Cultivation of crops in regions with annual rainfall more than 750mm
- Crop failure is relatively less frequent in spite of prolonged dry spells
- Growing season (period of adequate soil moisture) between 75 and 120days
- Moisture conservation practices are necessary for crop production

Rainfed farming

- Cultivation of crops in regions with annual rainfall more than 1150mm
- Crops are not subjected to soil moisture stress during the crop period
- Growing season (period of adequate soil moisture) more than120days
- Drainage provisions should be made to remove excess water

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Status

Current Land Use in India (Mha)

Geographical Area – 328.78
Net sown area - 142.00
Net irrigated area - 68.00
Net Unirrigated area – 73.00

Even after the utilization of all our water resources for irrigation, about half of the cultivated area will remain rainfed

Status

Distribution of Land holdings (2015 -16 agricultural census)

Total number of holdings:146.00mn (0.94%)

Average size of the farmland:1.08ha (from 1.15ha)

Small & Marginal farmers (less than1ha): 125.86mn (7.34%)

Medium farmers (1 to 4 ha): 19.3mn (-2.13%)

Large farmers (4 to 10ha) : 0.83mn (-15.31%)

With land holdings getting smaller, the share of small & marginal holdings has risen to 86.21% of total operational holdings

Importance of Dryland Agriculture

- Contributes 44% of food supplies
- Supports 40% population
- Supports two out of three cattle
- 90% coarse cereals produced from rainfed areas
- 91% of the pulses are cultivated in rainfed areas
- 67% cotton is grown on drylands
- About 50% of area under rice and 19% under wheat is rainfed

Important milestones of Indian Dryland Agriculture

- 1923 – Establishment of Dry Farming Research station at Manjri
- 1933 – Research stations established at Bijapur and Sholapur
- 1934 – Research stations established at Hagari and Raichur
- 1935 – Research stations established at Rohtak (Haryana)
- 1970- Establishment of All India Co-ordinated Research Project for Dryland Agriculture - 23 research centres were established
- 1985 – Central Research Institute for Dryland Agriculture (CRIDA)