APPENDIX

CONCEPTS AND DEFINITIONS USED IN THE STUDY

**Rainfed or Dryland Definition:** By scientific definition, regions receiving annual rainfall in range of 750 mm to 1150 mm are categorized as rainfed areas and regions receiving less than 750 mm of rainfall are categorised as dryland areas. However in the present study, both the terms, i.e, rainfed and dryland are used synonymously, to provide the sense that the farming practices are mainly dependent on rainfall. Hence both the terms are conveniently interchanged.

**Arid Zones:** The areas having less than 400 mm annual rainfall with less than 75 days of crop growing period come under arid of zones. These areas can accommodate only seasonal grazing of livestock. The cultivation of short duration crops is possible only with irrigation.

**Semi-Arid Zones:** The areas which receive 400 to 1000 mm annual rainfall are semi-arid zones. The zone can be divided into two subzones.

**Sub-zone 1:** This zone receives annual rainfall of 400 – 700 mm with 75 – 120 days of crop growing period. Both dry land crops and livestock can be supported in this area.

**Sub-zone II:** This zone receives annual rainfall of 700 – 1000 mm with 120 – 140 days of crop growing period. These areas are suitable for crop production strategy in these areas is to make best use of limited water supply by conserving it in-situ or adoption of crop production technologies giving higher water use efficiency.

**Semi-Wetland Zone:** The area which receives annual rainfall between 1000mm and 2000 mm and distributed over a period of 4 to 7 months with crop growth period of 140 to 210 days. Rice and other food crops can easily be grown in these
areas. Long duration crops, varieties and multiple cropping are adopted in this zone.

**Agricultural Insurance**: Insurance applied to agricultural enterprises. Types of business include crop insurance, livestock insurance, aquacultural insurance and forestry, but normally excludes building and equipment insurance although these may be insured by the same insurer under a different policy.

**Base year**: The year, which is taken as the starting year for financial calculations, i.e. a benchmark with which future years are compared or calculated against.

**Block/Mandal**: An administrative sub-division of district which in turn is a sub-division of state.

**Crop Insurance**: Provides protection against loss or damage to growing crops including perennial crops such as tree crops against specified or multiple perils, e.g. hail, windstorm, fire, flood. Measurement of loss could be by “yield” basis, production costs basis, agreed value basis or rehabilitation cost basis. While much of the crop insurance is geared towards loss of physical production or yield, cover may also be provided to loss of the productive asset such as tree crops.

**Crop yield**: The measurable produce of economic value from a crop. This may be evaluated in terms of quantity and/or quality. Yields are stated in units such as kg/ha or t/ha.

**Drought**: This is one of the most commonly requested perils by farmers, but it also one of the most difficult perils to insure because of problems of its definition, isolation and measurement of effects on crop production. In contrast to most weather perils, drought is a progressive phenomenon, in terms of an accumulating soil moisture deficit for plant growth, and its impact on crop production and yields is often extremely difficult to predict then measure and isolate from other non insured causes.
Gross state domestic product (GSDP): GSDP is a measure of economic activity in a state. It is calculated by adding the total value of the state annual output of goods and services.

Irrigation: A device purposely providing land with water other than rain water by artificial means.

Kharif season: Kharif is characterized by a gradual fall in temperature, more numerous cloudy days, low light intensity, a gradual shortening of photoperiod, high relative humidity and cyclonic weather. The kharif season depends entirely on the southwest monsoon receiving over 70% of the annual aggregate rainfall during monsoon months of June to September.

Net area irrigated: The total of all the areas irrigated from different sources, counting each area irrigated only once even though it is irrigated more than once in the same year.

Northeast monsoon: Rainy season that affect only the southern Peninsular India extending from October to December.

Rabi season: In Rabi, there is a gradual rise in temperature, bright sunshine, near absence of cloudy days, a gradual lightening of the photoperiod and a lower relative humidity. Rainfall is received in Rabi season from Northeast monsoon (October to December).

Southwest monsoon: The main rainy season in India which extends from June to September.

Value of output: This measures the total value of goods and services produced by a sector.

Operational Holdings: This includes area actually cultivated (including current fallows) by he farmer and his family irrespective of the title of the location.
**Current Fallow**: The areas which remain fallow during the whole agricultural year.

**Net Sown Area**: The area where crops are sown and counting areas sown more than once in a year.

**Cultivated Area**: Net sown area plus current fallows.

**Gross Cropped Area**: This represents the sum total of areas covered by all the crops, area sown more than once during one year is counted as separate area for each crop.

**Value of Human labour**: This includes total expenditure on hired labour, contract labour and value of family labour.

**Value of Family Labour**: Value of family labour is calculated at the prevailing wage rate at that village.

**CONCEPTS OF COST**:

**Cost A₁**: It includes

(i) value of hired human labour
(ii) value of bullock hired labour
(iii) value of owned bullock labour
(iv) value of owned and hired machine labour
(v) value of seed
(vi) value of manures and fertilizers
(vii) depreciation (on buildings, implements etc.,)
(viii) water tax
(ix) interest on working capital
(x) miscellaneous expenses

**Cost A₂**: Cost A₁ + Rent paid for leased-in-land.

**Cost B**: Cost A₂ + Rental value of owned land + Interest on fixed capital.

**Cost C**: Cost B + Imputed value of family labour.
Operational Cost: Includes cost of human labour (owned and hired), machine labour (owned and hired), seed, manures, fertilizers and water tax.

Overhead Cost: Includes interest on fixed capital, depreciation, rent paid for leased-in-land and rental value of owned land.

Prime Cost: Cost A₁ - Water tax + value of family labour

CONCEPTS OF INCOME:

Gross Income: Value of output (both main product and by-product)

Farm business income: Gross income – Cost A₁ (Cost A₂ in case of tenant farmers)

Net Income: Gross Income – Cost C

Farm investment Income: Net Income + rental value of owned land + Interest on fixed capital.