

GLOSSARY

A

Abiotic

Physical rather than biological; not derived from living organisms

Above-Ground Biomass (AGB)

Component of carbon pool consisting of all living vegetation above the soil inclusive of stems, stumps, branches, bark, seeds and foliage.

Acidification of soil (E1/E2)

Soil pH is one of the most-important soil property that affects the nutrient uptake by plants and there by influencing the crop productivity. Any soil processes or management practices which lead to build-up of hydrogen cations (also called protons) in the soil results in soil acidification. If the pH is 4.5 to 5.5 then they are called moderate and if the pH is < 4.5, then they are mapped under severe category.

Agricultural Land

Land primarily used for farming and for production of food, fibres and other commercial and horticultural crops.

Aquaculture pond

Water bodies used for the breeding and rearing of fresh-water or marine fish in captivity.

Area under non-agricultural uses

Land occupied by buildings, roads and railways or under water, e.g. rivers and canals as also other land put to uses other than agriculture.

Ash pond

Water body created for discharging effluents in industry, especially in thermal power plants

B

Backwater

A creek, arm of the sea or series of connected lagoons, usually parallel to the coast, separated from the sea by a narrow strip of land but communicating with it through barred outlets.

Barren and unculturable land

Land which cannot be brought under cultivation except at an exorbitant cost, are classified as unculturable whether such land is in isolated blocks or within cultivated holdings. This includes all barren and unculturable land like mountains, deserts, etc.

Barren Rocky/Stony Waste

Rock exposures of varying lithology often barren and devoid of soil and vegetation cover.

Below-Ground Biomass (BGB)

Component of carbon pool consisting of the biomass contained within live roots.

Biodiversity

Variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part, including diversity within species, between species and of ecosystems. It is also a measure of ecosystem health.

Biogeographic zone

Large distinctive units of similar ecology, biome representation, community, and species.

Biomass

Density of organic matter expressed as oven-dry tonnes per unit area.

Biosphere Reserves

Large areas of bio diversity where flora and fauna are protected, with a view to achieve a balance between conserving biodiversity, encouraging economic and social development and preserving cultural values.

Biotic

Relating to or resulting from living organisms

Built-up land

Area of human habitation developed for non-agricultural use and that has a cover of buildings, transport and communication, utilities in association with water, vegetation and vacant lands.

C

Canopy

Cover of branches and foliage formed by the crowns of trees.

Canopy Cover

Percentage of the ground covered by a vertical projection of the outermost perimeter of the natural spread of the foliage of plants.

Canopy Density

Percent area of land covered by the canopy of trees, expressed as a decimal coefficient, taking closed canopy as unity.

Carbon Pool

Components of an ecosystem that can either accumulate or release carbon.

Carbon Sequestration

Removal and storage of carbon from the atmosphere in carbon sinks (such as oceans, forest or soils) through physical or biological processes, such as photosynthesis.

Catchment

Area having a common outlet for its surface run-off.

Climate

Climate in a narrow sense is usually defined as the "average weather," or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands of years. The classical period is 3 decades, as defined by the World Meteorological Organization

(WMO). These quantities are most often surface variables such as temperature, precipitation and wind. Climate in a wider sense is the state, including a statistical description, of the climate system.

Climate Change

Climate change refers to any significant change in the measures of climate lasting for an extended period of time. In other words, climate change includes major changes in temperature, precipitation, or wind patterns, among others, that occur over several decades or longer.

Coastal Sand

Sands that are accumulated as a strip along the seacoast due to action of seawater. These are classified as wasteland if not being used for any purpose like recreation.

Coastal Wetland

Include estuaries, lagoons, creek, backwater, bay, tidal flat/mudflat, sand/beach, rocky coast, mangrove, salt marsh/marsh vegetation and other hydrophytic vegetation and saltpans.

Concentration

Amount of a chemical in a particular volume or weight of air, water, soil or other medium.

Conservation Reserves and Community Reserves

Conservation Reserves and Community Reserves denote those protected areas of India which typically act as buffer zones to or connectors and migration corridors between established national parks, wildlife sanctuaries and reserved and protected forests of India. Such areas are designated as conservation areas if they are uninhabited and completely owned by the Government of India but used for subsistence by communities and community areas if part of the lands are privately owned.

Cooling pond

An artificial lake used for the natural cooling of condenser-cooling water serving a conventional power station.

Coral Reef

Consolidated living colonies of microscopic organisms found in warm tropical waters. The term coral reef, or organic reef is applied to the rock-like reefs built-up of living things, principally corals. They consist of accumulations of calcareous deposits of corals and coralline algae with the intervening space connected with sand, which consists largely of shells of foraminefera.

Creek

A physiographic feature of salt marshes, especially low marshes. Creeks develop with minor irregularities sooner or later causing the water to be deflected into definite channels.

Cropland

Areas with standing crop, including kharif, rabi and zaid crop lands along with areas under double or triple crops.

Crops

Plants or agricultural produce grown for food or other economic purposes, such as for textiles or livestock fodder.

Crown Area

Area of horizontal projection of a tree crown on the ground.

Culturable waste land

Land available for cultivation, but not cultivated during the current year and the last five years or more in succession for one reason or other. Such lands may be either fallow or covered with shrubs, which are not put to any use. They may be assessed or un-assessed and may lie in isolated blocks or within cultivated holdings. Land once cultivated but not cultivated for five years in succession are included in this category at the end of the five years.

Current fallow

Cropped area which is kept fallow during the current year. If a seeding area is not cropped against the same year, it may be treated as current fallow.

Current Shifting Cultivation

Growing of crops for a few years on selected and clear plots, alternating with a lengthy period of vegetative fallow when the soil is rested. The land is cultivated for less than 33 percent of the time.

D

Dead Organic Matter (DOM)

Component of carbon pool containing all non-living woody biomass and can be divided into wood (fallen trees, roots and stumps with diameter over 10cm) and litter (greater than 2mm and less than 10cm diameter) components.

Deciduous

Perennial plants that are leafless for a certain period of the year. The leaf shedding usually takes place simultaneously in connection with the unfavourable season. Deciduous forests are predominantly composed of species, which shed their leaves once a year.

Degradation due to anthropogenic factors (G)

Decreased biological productivity, diversity and resilience of the land due to human economic activities like mining, brick kiln activities, industries etc.

Degradation due to anthropogenic factors (G) - Brick kiln areas (G3)

Areas that are degraded including brick kiln per se and area dug for making bricks.

Degradation due to anthropogenic factors (G) - Mining and dump areas (G2)

Areas subjected to removal of different earth material (both surface and sub-surface) by manual and mechanized operations. It includes surface rocks and stone quarries, sand and gravel pits, mine dumps, etc.

Degradation due to anthropogenic factors (G) - Industrial effluent affected areas (G1)

Areas where the human activity is observed in the form of industry along with other supporting establishments of maintenance. This includes areas with heavy metallurgical industry, thermal, cement, leather, petrochemical, engineering plants etc., and lands which have been deteriorated due to large scale industrial effluent discharge.

Degraded land under plantation crop

Degraded lands that have been brought under plantation crops after reclamation, and are located outside the notified forest areas.

Degraded pastures/grazing land

Lands in non-forest areas that are either under permanent pastures or meadows, which have degraded due to lack of proper soil and water conservation and drainage development measures.

Dense Forest

Forests whose crown density is 40 percent or above.

Desertic sand

Sandy areas confined to arid environment where the rainfall is scanty. These lands are characterized by accumulation of sand in the form of varying size of sand dunes and height that have developed as a result of transportation of soil through winds. There are two categories of desert sands based on their vertical approximate heights - Semi-stabilized to stabilized dunes with >40 m height; and Semi-stabilized to stabilized moderately high dunes with heights ranging between 15 and 40 m.

Desertification

Land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variations and human activities.

E

Ecosystem

A dynamic complex of plant, animal and microorganism communities and their non-living environment interacting as a functional unit.

Ecosystem Assets

Spatial areas comprising a combination of biotic and abiotic components and other elements which function together. Some examples are forests and wetlands.

Ecosystem Condition

Overall quality of an ecosystem asset in terms of its characteristics. Measures of ecosystem condition are generally combined with measures of ecosystem extent to provide an overall measure of the state of an ecosystem asset.

Ecosystem Extent

Size of an ecosystem asset, commonly in terms of spatial area.

Ecosystem services

Benefits supplied by the functions of ecosystems and received by humanity.

Endemic Species

Refers to a species that is native to where it is found.

Energy production

Capture, extraction or manufacture of fuels or other energy products in forms which are ready for general consumption.

Evapotranspiration

Combined process of evaporation from the Earth's surface and transpiration from vegetation.

Evergreen/Semi-Evergreen

Perennial plants that are never entirely without green foliage or predominantly remain green throughout the year. Semi-evergreen is a forest type that includes a combination of evergreen and deciduous species with the former dominating the canopy cover.

F

Fallow Land other than Current Fallow

Lands, which were taken up for cultivation but are temporarily out of cultivation for a period of not less than one year and not more than five years.

Flood irrigation

Type of irrigation where farmers flow water down small trenches running through their crops. Also referred to as furrow irrigation.

Flood plain

Flat area adjacent to rivers that is periodically flooded.

Forest

Lands classed or administered as forests under any legal enactment dealing with forests, whether state-owned or private. It does not include land that is predominantly under agricultural or urban land use.

(In Land Use Statistics) Includes the area of crops raised in the forest and grazing lands or areas open for grazing within the forests are included under the forest area.

Forest Area

Area recorded as a forest in the Government records. Also referred to as 'recorded forest area'.

Forest Cover

All lands more than one hectare in area, with a tree canopy density of more than 10 percent irrespective of ownership and legal status. Such lands may not necessarily be a recorded forest area. It also includes orchards, bamboo and palm.

Forest Inventory

Measurement of certain parameters of forests to assess the growing stock and other characteristics of forests.

Forest Plantation

Areas of tree species of forestry importance, raised and managed especially in notified forest areas. The species mainly are teak, sal, eucalyptus, casuarinas, bamboo etc.

Freshwater

Naturally occurring water having a low concentration of salt.

Frost heaving

Process in glacial and periglacial environment where intense frost action and freezing of water evolves peculiar forms of rock, regolith and soil. The water crystallizes to ice below the surface horizon leading to micro-relief variations on the surface. This process affects the germination and root growth of several crops there by limiting the productivity of land.

Frost shattering

Type of land degradation/desertification typically seen in cold mountainous arid areas. In this, water enters cracks in rocks during the day and during the cold night it freezes. This exerts pressure on the rocks causing the cracks to widen and shattering the rocks into pieces.

G

Glacial Degradation

Degradation attributable to perpetual snow covered areas. The types of degradation included are frost heaving and frost shattering.

Glacier

A multi-year surplus accumulation of snowfall in excess of snowmelt on land and resulting in a mass of ice at least 0.1 km² in area that shows some evidence of movement in response to gravity. A glacier may terminate on land or in water.

Grass / grazing land

Areas of natural grass along with other vegetation, predominantly grass-like plants (Monocots) and non-grass-like herbs (except Lantana species which are to be classified as scrub).

Growing Stock

Sum (by number or volume) of all the trees growing/living in the forest.

Gullied and/or Ravinous Land

Narrow channels formed when surface water flow increases in response to clearing and excessive use of land are called gullies. An intricate network of gullies is referred to as ravines.

H

High altitude lakes

Lakes above a contour line of 3000 m above mean sea level.

I

Inland Wetlands

Inland areas of land that are either temporarily or permanently covered by water. Includes ox-bow lakes, cut-off meanders, playas, marsh, etc. which are seasonal as well as permanent in nature. It also includes manmade wetlands like waterlogged areas (seasonal and perennial).

Intertidal mud flat

Unvegetated areas that are alternately exposed and inundated by the falling and rising of the tide. They may be mudflats or sand flats depending on the coarseness of the material of which they are made.

Irrigated Area

Area irrigated for cultivation through sources such as canals, tanks, tube-wells, other wells and other sources.

Irrigation

Process of purposely providing land with water by artificial means.

Irrigation water

Water artificially applied to land for agricultural purposes.

L

Lagoon

Coastal bodies of water, partly separated from the sea by barrier beaches. As a rule, lagoons are elongate and lie parallel to the shoreline.

Lake/ pond

Larger bodies of standing water occupying distinct basins. These wetlands occur in natural depressions and are normally fed by streams/rivers.

Land affected by salinity/alkalinity

Land that has excess soluble salts (saline) or high exchangeable sodium.

Land cover

Observed physical and biological cover of the Earth's surface and includes natural vegetation and abiotic (non-living) surfaces.

Land under miscellaneous tree crops, etc.

Cultivable land which is not included in 'Net area sown' but is put to some agricultural uses. Lands under Casurina trees, thatching grasses, bamboo bushes and other groves for fuel, etc. which are not included under 'Orchards' are classified under this category.

Land with dense scrub

Areas with scrubs dominating the landscape and having shallow and skeletal soils, at times chemically degraded, extremes of slopes, severely eroded and are subjected to excessive aridity. They have a tendency for intermixing with croplands.

Land with open scrub

Similar to land with dense scrub, except that it has sparse vegetative cover or is devoid of scrub and has a thin soil cover.

Land-use

Reflects both (a) the activities undertaken and (b) the institutional arrangements put in place for a given area for the purposes of economic production, or the maintenance and restoration of environmental functions.

Litter

Woody material of trees having diameter < 5cm which is not decomposed.

Littoral/Swamp/Mangrove Forest

Areas on coastal tidal flats, estuaries salt marshes etc where the canopy cover/density is above 10% and tropical and subtropical vegetation species are densely colonized.

M

Mangrove

An association of halophytic trees, shrubs and other plants growing in brackish to saline tidal waters of tropical and sub-tropical coastlines.

Mining /Industrial wastelands

Areas where waste debris is accumulated after extraction of minerals or areas of stockpile of storage dump of industrial raw material or slag/effluents or waste material or quarried/mixed debris from earth's surface.

Mining pools

Water accumulated in abandoned quarries that had earlier been used for the extraction of stone, ore, coal, gravel or minerals.

Moderately Dense Forest

Lands with forest cover having a canopy density between 40 to 70 percent.

N

National Parks

Represent Category II type of protected areas, i.e., protected areas managed mainly for ecosystem protection and recreation. These areas are protected from human exploitation, pollution and stand for conservation of wild nature.

Natural Capital Accounting (NCA)

An umbrella term covering efforts to make use of an accounting framework to provide a systematic way to measure and report on stocks and flows of natural capital. NCA covers accounting for individual environmental assets or resources, both biotic and abiotic (such as water, minerals, energy, timber, fish), as well as accounting for ecosystem assets (e.g. forests; wetlands), biodiversity and ecosystem services, in both physical and monetary terms.

Net area irrigated

Total of all the areas irrigated from different sources, counting each area irrigated only once even if it is irrigated more than once in the same year.

Net area sown

Total area sown with crops and orchards, where area sown more than once in the same year is counted only once.

Non Forest Land

Land without forest cover.

O

Open Forest

Lands with forest cover having a canopy density between 10 to 40 percent.

Other Degraded Land - Miscellaneous (H3)

Primarily includes riverine sand areas, sea ingression areas mainly with sand deposition excluding the sandy areas of desert region.

Other Degraded Land - Barren rocky / stony waste areas (H2)

Rock exposures of varying lithology often barren and devoid of soil and vegetal cover. They occur in hills as openings or as isolated exposures on plateau and plains.

Other Degraded Land - Mass movement/ Mass wastage (H1)

Landslide areas and areas with mass wastage in terms of foothill depositions, where the coarse material like sand and pebbles gets deposited because of erosion in upper catchment area.

Other Degraded Land (H)

Refer to degraded lands covering mass movement/ mass wastage, barren rocky / stony waste areas.

Other fallow land

Lands which had been taken up for cultivation in the past, but are temporarily out of cultivation for a period of not less than one year and not more than five years including the current agricultural year are classified under 'other fallow'.

Other wooded land

Land not classified as 'Forest', spanning more than 0.5 hectares; with trees higher than 5 metres and a canopy cover of 5–10 per cent, or trees able to reach these thresholds in situ; or with a combined cover of shrubs, bushes and trees above 10 per cent. It does not include land that is predominantly under agricultural or urban land use.

Ox-bow lake/ Cut-off meander

Crescent-shaped lakes resulting from a meandering stream eroding the outside shores of its broad bends and ending up as basins.

P

Permanent pastures and other grazing lands

All grazing lands including permanent pastures, meadows and village common grazing land.

Physiographic Zone

Geographical areas that exhibit broad similarities in factors responsible for the growth of tree vegetation.

Plantations

Areas under agricultural tree crops planted adopting agricultural management techniques. It includes agricultural plantation (like tea, coffee, rubber etc.) horticultural plantation (like coconut, areca nut, citrus fruits, orchards, fruits, ornamental shrubs and trees, vegetable gardens etc.) and agro-horticultural plantation.

Ponds

A small, quiet body of standing water, usually shallow enough to permit the growth of rooted plants from one shore to another

Protected Areas

Geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values.

Protected Forest (PF)

Area notified under the provisions of the Indian Forest Act or other State Forest Acts, having limited degree of protection. In protected forests, all activities are permitted unless prohibited.

R

Rann Area

An extensive salt marsh of western India between the Gulf of Kutch and the Indus River delta.

Recorded Forest Area (RFA)

Same as 'forest area', i.e., geographic areas recorded as forests in Government records.

Reserved Forests (RF)

An area so constituted under the provisions of the Indian Forest Act or other State Forest Acts, having full degree of protection. In reserved forests, all activities are prohibited unless permitted.

Reservoir/Barrage

A pond or lake built for the storage of water, usually by the construction of a dam across a river or by dykes constructed for irrigation/water facilities.

River/Stream / Canals

Rivers/streams are natural course of water flowing on the land surface along a definite channel/slope regularly or intermittently towards a sea or in to a lake or an inland basin in desert areas or a marsh or another river. Canals are artificial water course constructed for irrigation, navigation or to drain out excess water from agricultural lands.

River Basin

The drainage area of a river and its tributaries and also the basic hydrological unit for water resources planning and management.

Riverine sand

Sand accumulated in the flood plain of the river as sheets or sand bars. It also includes inland sand which was accumulated along the abandoned river courses or by reworking of sand deposits by wind action leading to long stretches of sand dunes or sand cover areas.

Riverine wetland

Areas, especially in plains, where water accumulates leading to formation of marshes and swamp. A swamp is a wetland dominated by trees or shrubs, while a marsh is a frequently or continually inundated wetland characterised by emergent herbaceous vegetation adapted to saturated soil conditions.

Rural

Lands used for human settlement of size comparatively less than the urban settlements of which the majority of population is involved in the primary activity of agriculture. In respect of land cover, these refer to built-up areas, smaller in size, mainly associated with agriculture and allied sectors and non-commercial activities.

S

Saline / Salinity

Presence of soluble salts in soils or waters.

Salinization / Alkalization - Rann

Areas formed due to saline water intrusion in the coastal areas of arid and semi-arid regions which barely supports any grass.

Salinization / Alkalization - Saline/ Sodic/ Saline Sodic (D1-D9)

Degradation of land due to accumulation of soluble salts, thereby affecting the crop growth. Based on the type of salt problem, it has been divided into saline, sodic and saline-sodic.

Salt Marsh

Natural or semi-natural halophytic grassland and dwarf brushwood on the alluvial sediments bordering saline water bodies whose water level fluctuates either tidally or non-tidally.

Salt pan

An undrained usually small and shallow rectangular, man-made depression or hollow in which saline water accumulates and evaporates leaving a salt deposit.

Salt-Affected Land

Land that has excess salt in the soils with patchy growth of grasses.

Sand (Coastal / Desert / Riverine)

Land with accumulation of sand, in coastal, riverine or inland areas. These lands are mostly found in deserts, riverbeds and along the shores.

Sand - Beach

An unvegetated part of the shoreline formed of loose material, usually sand, that extends from the upper limit of ordinary high tides and wave wash to low water mark. Beach comprising rocky material is called rocky beach.

Sandy Area

Areas occurring in coastal, riverine or inland regions. Desertic sands are characterized by accumulation of sand developed in situ or transported by wind. Coastal sands are those accumulated as a strip along the sea-coast. Riverine sands are accumulations in the flood plain as sheets which are the resultant phenomena of river flooding.

Scrub

Degraded forest lands having canopy density less than 10 percent.

Scrub Forest

Forest type consisting of two sub-classes viz., scrub dominated degraded forest land and agriculture land inside notified forest areas.

Scrub dominated: Land, as notified under the Forest Act and those lands with various types of forest cover with less than 20 % of vegetative cover, are classified as degraded forest. These lands are generally confined to the fringe areas of notified forest. Agricultural land inside notified forest land: This category refers to areas that have been notified under the Forest Act, in which agriculture is being practiced.

Scrub Land

Includes both land with dense scrub and land with open scrub.

Shifting Cultivation Areas

Growing of crops for a few years on selected and clear plots, alternating with a period of vegetative fallow when the soil is rested. Includes abandoned areas, that were earlier under shifting cultivation but subsequently left idle for more than one year but less than 5 years, thereby giving a scope for the regeneration of secondary vegetation such as bamboo or grasses.

Snow and glaciers

Areas under perpetual snow cover throughout the year.

Soil Erosion

Displacement of the upper layer of soil, caused by the dynamic activity of erosive agents, that is, water, ice (glaciers), snow, air (wind), plants, animals, and humans.

Soil organic matter (SOM)

Component of carbon pool that consists of organic soil carbon with biomass less than 2mm diameter.

T

Tanks/Ponds

An artificial pond, pool or lake formed by building a mud wall across the valley of a small stream to retain the monsoon or to store water, including those constructed for industrial purposes.

Threatened Species

Any species which is vulnerable, endangered or critically endangered.

Timber resources

Defined by the volume of trees, living and dead, which can be used for timber or fuel.

Tree

A large woody perennial plant having a single well defined stem and a more or less definite crown. It also includes bamboos, palms, fruit trees, etc. and excludes non-perennial non-woody species like banana and tall shrubs or climbers.

Tree Cover

Tree patches outside the recorded forest area exclusive of forest cover and less than the minimum mappable area (1 ha) and up to 0.1 ha, comprising of block, linear and scattered trees. For the purpose of assessing growing stock and tree cover, only those trees having diameter at breast height (dbh) of 10cm or more are measured.

Trees Outside Forests (TOF)

Trees growing outside recorded forest areas.

U

Unclassed Forests

An area recorded as forest but not included in reserved or protected forest category.

Urban

Urban areas are non-linear built up areas covered by impervious structures adjacent to or connected by streets. It includes residential areas, mixed built-up, recreational places, public / semi-public utilities, communications, public utilizes/facility, commercial areas, reclaimed areas, vegetated areas, transportation, industrial areas and their dumps, and ash/cooling ponds.

V

Very Dense Forest

Lands with forest cover having a canopy density of 70 percent and above.

W

Wastelands

Described as degraded lands which can be brought under vegetative cover with reasonable effort and which is currently underutilized and land which is deteriorating for lack of appropriate water and soil management or on account of natural causes.

Water body

A mass of water distinct from other masses of water. This category comprises areas with surface water in the form of ponds, lakes, tanks and reservoirs.

Water Erosion - Sheet erosion (A1/A2/A3)

A type of water erosion where the soil particles are removed from the whole soil surface in the form of thin layers. Depending on the magnitude of soil loss, it has 3 severity classes, A1, A2 and A3 with soil loss of 10-20, 20-40 and >40 tons/ha/year soil loss respectively.

Water Erosion - Rills (A4)

When the surface runoff in the event of water erosion goes in the form of a concentric flow, tiny water channels are formed in the field. One important feature of rills is that they do not occur at the same place repeatedly. This is a temporary concentric flow of runoff, which could vanish after ploughing the land.

Water Erosion - Ravines (A6/A7)

An intricate network of gullies developed along river courses.

Water erosion (A)

Displacement of soil material by water resulting in either loss of topsoil or terrain deformation or both. This category includes processes such as splash erosion, sheet erosion, rill and gully erosion.

Water Erosion -Gullies (A5)

Gullies are formed as a result of localized surface run-off affecting the unconsolidated material resulting in the formation of perceptible channels causing undulating terrain.

If rills are neglected and the erosion continues for a long time, it develops into gullies.

Water Logging - Surface Ponding (C1/C2)

Water logging caused by flooding of river water, submergence by rainwater and human intervention in natural drainage systems that adversely affect the natural drainage, where the water stagnates for quite a long time. Depending on the number of crops affected, it has been sub-divided into two severity classes, seasonal- affecting one crop and permanent - affecting more than one crop.

Water Logging - Sub-surface Water Logging (C3)

Cases of water logging where the water table is within 2 m from the surface. It adversely affects crop by virtue of saturating the root zone due to capillary rise. These areas are a potential threat to get surface ponded in due course of time, if the water accumulation continues.

Water Logging (C)

Excessive ponding / logging of water for quite some period leading to physical deterioration of land and affects the productivity of land or reduces the choice of taking crops.

Water resources

Freshwater and brackish water, regardless of their quality, in inland water bodies, including surface water, groundwater and soil water.

Waterlogged (Man-made)

Water-logging in areas adjacent to canals due to seepage especially when canals are unlined.

Waterlogged / Marshy Land

Waterlogged land is that low lying land where the water is at/or near the surface and the water stands for most part of the year.

Watershed

Geographic area through which water flows across the land and drains into a common body of water, whether a stream, river, lake or ocean.

Weather

Atmospheric condition at any given time or place. It is measured in terms of such things as wind, temperature, humidity, atmospheric pressure, cloudiness and precipitation. In most places, weather can change from hour-to-hour, day-to-day and season-to-season. Climate in a narrow sense is usually defined as the "average weather". A simple way of remembering the difference is that climate is what you expect (e.g. cold winters) and 'weather' is what you get (e.g. a blizzard).

Weathering

Breakdown of rocks through contact with atmospheric conditions such as heat, water, ice and pressure.

Well

A hand dug or drilled hole to access groundwater.

Wetlands

Areas of land that are either temporarily or permanently covered by water. These are neither truly aquatic nor terrestrial; it is possible that wetlands can be both at the same time depending on seasonal variability. These could be natural or man-made and found both in the inland and coastal areas.

Wildlife Sanctuary

A natural habitat, owned by the government or private agency, which safeguards particular species of birds and animals.

Wind erosion - Sheet erosion (B1/B2/B3)

Uniform displacement of topsoil by wind action as thin layers / sheets.

Wind erosion - Un-stabilized dunes (B6)

Erosion common to the arid areas where due to wind, the sand starts moving and engulfing the adjoining agricultural lands, engineering structures and demands immediate attention for their stabilization. The unstabilized sand dunes changes their location and shape from season to season and hence they are often called shifting dunes.

Wind erosion - Stabilized dunes (B4) / Partially stabilized dunes (B5)

Depending on the rainfall and protection available from grazing, the bare sand dunes gradually establishes vegetal cover thus making them to get stabilized. In partially stabilized dunes, the erosion / deposition will still be active to some extent. When they establish a good vegetal cover either in the form of grasses, shrubs and scrubs, they get stabilized and erosion / deposition activity will become minimal.

Wind erosion (B)

Uniform displacement of topsoil by wind action. It can result in loss of topsoil and the deposition of the eroded material elsewhere which leads to formation dune complexes.

Z

Zoonotic Disease

Diseases caused by germs that spread between animals and people. Also known as zoonoses, these may be bacterial, viral, or parasitic, or may involve unconventional agents.