Appendix-III: Urban land use/cover categories and the definitions of these categories

The areas included under each category are

1. **URBAN or BUILT-UP LAND**

   "All places with a municipality, corporation or cantonment or which are notified town areas, and all other places which satisfy the criteria of a minimum population of 5000, at least 75 per cent of whose male working population is non-agricultural and having a density of population of at least 400 per sq.km. are placed under this category" (Census of India). It comprises areas of intensive use with much of the land covered by structures. It includes residential, industrial, transportation, power, communications and isolated areas such as mills, mines, quarries, shopping centres and institutions.

1.1 **Residential**

   It includes all the constructions used primarily for residential purpose. The residential areas include apartments, detached houses, row houses and farm houses of different density groups.

1.2 **Industrial**

   It include all the constructions that are used for industrial activity. It include a wide array of uses from light manufacturing industries focused on design, assembly, finishing and packaging of products, to heavy manufacturing industries such as chemical plants, electric power generating stations, oil refineries, brick making plants, steel plants, etc.

1.3 **Transportation**

   This is the land basically identified for the purpose of transportation activity. Major transportation routes such as roadways, railways, airways and waterways are included in this category.

   The roadways include major and minor roads, bridges and terminal facilities such as bus and truck terminals.

   The rail facilities include stations, parkinglots, repair and switching yards, tracks and related areas.

   The airways include all facilities directly connected with air transport. The areas include runways, intervening land, terminals, service buildings, plane hangars, navigation aids, fuel storage areas, parking lots and a limited buffer zone.
The water transportation includes those areas related to water transportation excluding the water. The major areas of this category are the port areas, docks, shipyards, dry-docks and locks.

1.4 Recreational

"It includes all recreation facilities and areas which are devoted for recreation and basically on open land." It includes incidental buildings such as shelters, toilets, beach change areas, etc.

1.5 Public and semi-public

"It includes all education institutes such as schools, colleges and universities, religious places, health centres, cantonment areas and the areas associated with the transport of gas, oil, water and electricity."

1.6 Open spaces/Vacant land

"It includes all the open spaces which are not used for any purpose and vacant land, both within and outside built-up areas."

2. AGRICULTURAL LAND

"This is broadly defined as the land used primarily for production of food and fiber." This include cropped areas, fallow lands and plantation areas.

2.1 Crop land

It includes both cropped lands, and un-irrigated crops grown under natural climatic conditions.

2.2 Fallow land

It is basically an agricultural land but devoid of any crop at the time of the collection of remotely sensed data.

2.3 Plantation

It includes plantations such as coconut, arecanut, citrus, banana, cashew, casuarina, eucalyptus and other orchards/nurseries.
3. **WASTELANDS**

"Lands which are capable or have the potential for the development of vegetative cover and are not being used due to different constraints of varying degrees are classified under this category."

3.1 **Salt affected land**

"This is the land generally characterised as the land that has adverse effects on the growth of most of the plants due to the action or presence of excess soluble or excess exchangeable sodium. The lands affected by these salts are included in this category."

3.2 **Gullied/Eroded land**

"The land which is affected by rills, gullies and ravines are classified under this category. The eroded land is the result of localised surface run-off affecting the friable unconsolidated material resulting in the formation of rills, gullies and later in the form of ravines."

3.3 **Water-logged areas**

"It is the land where the water is at or near the surface and water stands for most of the year. This category does not include the coastal wetlands."

3.4 **Undulating upland with or without scrubs**

"This is the land which is generally prone to degradation and may or may not have scrub cover. Such land occupying topographically high locations and excludes plain, hill and mountainous terrain."

3.5 **Sandy areas**

"Sandy areas other than beaches are composed primarily of dunes and accumulations of sand transported by the wind. Sand accumulations occurring in coastal plains, river flood plains or inland areas are included in this category."

4. **WATER BODIES**

"It include the areas that are persistently are water covered."

4.1 **Rivers/streams**

"This category include rivers, streams and creeks."
4.2 **Reservoirs/tanks**

"These are artificial impoundments of water used for irrigation, flood control, municipal water supplies, recreation, hydroelectric power generation and so forth."

4.3 **Lakes/ponds**

"These are non-flowing, naturally enclosed bodies of water, including regulated natural lakes but excluding reservoirs."

4.4 **Canals**

"These are artificial linear water bodies. They differ from streams/rivers since their flow is regulated."