The scope of an agricultural survey may be defined under ISIC Rev.4 as follows:

011 Growing of non-perennial crops
012 Growing of perennial crops
013 Plant propagation: It includes: Growing of plants for planting; Growing of plants for ornamental purposes, including turf for transplanting; Growing of live plants for bulbs, tubers and roots, cuttings and slips, mushroom spawn; Operation of tree nurseries, except forest tree nurseries
014 Animal production
015 Mixed farming
016 Support activities to agriculture and post-harvest crop activities
017 Hunting, trapping and related service activities
   This class includes: hunting and trapping on a commercial basis; taking of animals (dead or alive) for food, fur, skin, or for use in research, in zoos or as Pets; production of fur skins, reptile or bird skins from hunting or trapping activities; land-based catching of sea mammals such as walrus and seal
021 Silviculture and other forestry activities
022 Logging (This class includes: production of round wood for forest-based manufacturing industries; production of round wood used in an unprocessed form such as pit-props, fence posts and utility poles; gathering and production of fire wood; production of charcoal in the forest (using traditional methods))
023 Gathering of non-wood forest products
024 Support services to forestry
031 Fishing (This includes: Marine fishing and Freshwater fishing)
032 Aquaculture (This includes: Marine aquaculture & Freshwater aquaculture)
099 Others

1. Agricultural Holding

   - An economic unit under single management comprising of at least 2 large livestock and/or at least 3 small livestock and/or at least 10 poultry of any kind and/or land with a size of at least 200 square meters (or 0.02 ha.) used wholly or partly for agricultural production purposes regardless of title, legal form or size.

   - Single management may be exercised by an individual or household or jointly by two or more individuals or households or by a clan or tribe, or by a juridical person such as corporation, cooperative or government agency.
• May consist of one or more parcels located in one or more separate areas or geographical or administrative divisions in the country, provided that the parcels share the same production means such as labour, machinery or draught animals or farm buildings.

There are two types of agricultural holdings:
• Holdings in the household sectors – those operated by household members; and,
• Holdings in the non-household sectors – those managed and operated by corporations, cooperatives and government institutions.

2. Household

A household is a group of persons usually living together and taking their meals from a common kitchen unless the exigencies of work prevent any of them from doing so. The group is formed only of those persons who are living together for six or more months. It may include temporary stay-away (those whose total period of absence from household is expected to be less than six months) but exclude temporary visitors and guests (expected total stay is less than 6 months). There may be a household of persons related by blood or a household of unrelated persons or having a mix of both. Examples of unrelated households are boarding houses, messes, hostels, residential hostels, rescue houses, jails, ashrams etc. These are called ‘Institutional Households'. There may be single member households, two member households or multi member households. For census purpose, each one of these types is regarded as a ‘Household’.

The following cases are to be noted:

(i) Each inmate (including residential staff) of a mess, hostel, boarding and lodging house, hotels, etc. will constitute a single-member household. If however, a group of persons among them normally pool their income for spending, all of them together will be treated as forming a single household. For example, a family living in a hotel will be treated as a separate single household by itself.

(ii) Under trial prisoners in jails and indoor patients of hospitals, nursing homes, etc. are to be excluded. They will be considered as normal members of their parent households, and will be counted there. But households of residential staff of jails, hospitals etc will be listed. Convicted prisoners undergoing sentence will not be considered in the census.

Floating population, i.e. persons without any normal residence will not be listed during house listing.

Households which do not live in buildings but live in open or roadside, pavements, in hume pipes, under flyovers and staircases, or in the open places of worship, etc., are to be treated as houseless households and such households will be covered.
For the holdings in the household sector, there is usually one-to-one correspondence between an agricultural and a household with own account agricultural production activities. However, there are two special cases where the agricultural holding and household concepts may diverge:

- If there are two or more units making up the households, such as where a married couple leaves in the same dwelling as their parents, the two units may operate agricultural land independently, but as members of the same household, they make common arrangement for food and pool incomes.
- A household may operate land and at the same time keep livestock jointly with another household or group of households. Here, there are two agricultural holding units associated with the household, the first one is the agricultural production activities of the individual household itself and the second one is the joint agricultural operation with the other household(s).

3. Agricultural Holder who:

- Makes the major decision regarding resource use;
- Exercises management control over the agricultural holding operation;
- Has technical and economic responsibility for the holding; and,
- May undertake all responsibilities directly or delegate day-to-day responsibilities to a hired manager.

By definition, an agricultural holding is under single management and therefore cannot be more than one agricultural holder for an agricultural holding. However, there may be more than one joint holder in a holding. A joint holder is a person making major decisions regarding resource use and exercising management control over the agricultural operations, in conjunction with another person. A joint holder can be from within the same household or from another household.

4. Hired manager

- A paid employee who manages an agricultural holding on behalf of the agricultural holder.

5. Parcel

- Any piece of land of one land tenure type, entirely surrounded by other land or water or road or forest or other features not forming part of the holding; and,
- May consist of one or more fields or plots adjacent to each other.

A distinction should be made between a parcel, a field and a plot. A field is a piece of land in a parcel separated by from the rest of the lands in the parcel by easily recognizable demarcation lines such as paths, cadastral boundaries and/or hedges. A field may consist of one or more plots, where a plot is part of a field in which a specific crop or crop mixture is cultivated.
6. Location of the parcel
   - Refers to the administrative unit where the parcel is located.
   - The reference period is a point of time, usually the day of enumeration.

7. Area of the holding
   - Provides the actual measure of the size of the agricultural holding.

8. Area of each parcel in the holding
   - Refers to the actual measurement of the parcel or piece of land

9. Total area of holding
   - Refers to the area of all lands making up the holding; and,
   - The sum of the parcel areas must be equal to the total area of the holding.

10. Land use (for each parcel)
   - Refers to activities such as growing of crops, raising livestock or cultivating fish – carried out on the land making up the holding with the intention of obtaining products and/or benefits.
   - Reference period: survey reference year.

11. Land under temporary crops
    - Includes all land use for crops with a less than one year growing cycle

12. Land under temporary meadows and pastures
    - Includes land temporarily cultivated with herbaceous forage crops for mowing or pasture for a period of less than 5 years.

13. Land temporarily fallow/idle
    - Refers to arable land at prolonged rest before re-cultivation; left idle at most 5 years.

14. Land under permanent crops
    - Refers to land cultivated with long-term crops, which do not have to be replanted for several years; lands under trees and shrubs producing flowers, such as roses and jasmines; and nurseries (except those for forest trees, which should be classified under “forest or other wooded land”).

15. Permanent meadows and pastures
• Include land uses permanently (for five years or more) to grow herbaceous crops forage crops, through cultivation or naturally (wild prairie or grazing land).

16. Forest and other wooded land

• Land not classified as mainly “agricultural land” that satisfies either of the following definitions:
  - Forest land is a land with crown cover of more than 10 percent of trees able to reach a mature height of 5 meters or more. It includes natural and plantation forests. Areas that are temporarily not under trees but are expected to revert to forest are included. Forest tree nurseries that form an integral part of the forest should be included.
  - Other wooded land is a land with: (i) crown cover of 5-10 percent for trees able to reach a height of 5 meters or more at maturity; or (ii) crown cover of more than 10% for trees not able to reach a height of 5 meters at maturity; or (iii) shrub or bush cover of more than 10%.

17. Other lands

• includes all other land on the holding, not elsewhere classified;
• includes uncultivated land producing some kind of utilizable vegetable product, such as reeds or rushes for matting and bedding for livestock, wild berries, or plants and fruit;
• includes land which could be brought into crop production with little more effort in addition to that required in common cultivation practices;
• includes under this category is: land used for aquaculture; land occupied by buildings; parks and ornamental gardens; roads or lanes; open spaces needed for storing equipment and products; wasteland; land under water; and any other land not reported under previous classes.

18. Arable land

• includes land used for growing temporary crops in a twelve month reference period, as well as land that would normally be so used but is lying fallow or has not been sown due to unforeseen circumstances.

Classification of Land Use

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<tr>
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<td>Agricultural land</td>
<td>Cropland</td>
<td>Arable Land</td>
<td>Lands under temporary crops</td>
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<td>Land under permanent crops</td>
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19. Land tenure (for each parcel)

- arrangements or rights under which the holder operates the land making up the holding
- reference period is usually the day of enumeration.

20. Legal ownership or legal owner-like possession

- describes land rights that provide statutory security of tenure;
- Security of tenure has various aspects. Importantly, the ownership must be recognized by the state, and administrative structures must be in place to ensure that property rights are enforceable.
- This may be done through a formal land title system, but could also include certain forms of customary land tenure arrangements where land rights are registered or certified in some way.
- Typically, legal ownership implies that the owner of land has the right to determine how the land is used (within certain constraints), and may have the right to sell or rent out the land.
- It also implies that the owner may access credit using the land as collateral.

21. Non-legal ownership or non-legal owner-like possession

- The holder or members of the holder’s household have operated the land without interruption for a long period without any form of legal ownership, title, long-term lease, or payment of rent.
- The land is operated under a system in which a rent-free plot of tribal or other communal land is received and retained as long as it is kept under cultivation by the recipient's personal and household labour, but which cannot be sold or mortgaged.
- The holder is operating land owned by the state, without any legal rights
- The land operated by the holder is held under a tribal or traditional form of tenure, which is not recognized by the state and outside the realm of the law

22. Rented land from someone

- means land that is rented or leased by the holder from other persons, usually for a limited time period;
- Rental arrangements can take different forms. Land may be rented for an agreed sum of money and/or produce, for a share of the produce, or in exchange for services. Land may also be granted rent free.

23. Other types of land tenure
• One example is land operated on a squatter basis; that is private or public land operated without ownership title and without the owner's consent.
• Other land tenure types include: land operated under transitory tenure forms, such as trusteeship; land received by members of collective holdings for individual use; and land under inheritance proceedings.

24. Presence of irrigation on the holding

• Irrigation refers to purposely providing land with water, other than rain, for improving pastures or crop production.
• Irrigation usually implies the existence of infrastructure and equipment for applying water to crops, such as irrigation canals, pumps, sprinklers or localized watering systems.
• It also includes manual watering of plants using buckets, watering cans or other devices.
• Uncontrolled land flooding by overflowing of rivers or streams is not considered irrigation.
• Irrigation includes any process under which water is moved from a water source to apply to an agricultural crop. Water for irrigation may come from various sources, including rivers, dams or wells.
• Reference period: survey reference year.

25. Method of irrigation

• Surface irrigation refers to a system for partially or completely covering land with water for the purpose of irrigation. There are various types including furrow, border-strip and basin irrigation. Basin irrigation includes submersion irrigation for rice.
• Sprinkler irrigation refers to pipe networks through which water moves under pressure before being delivered to the crop via sprinkler nozzles. The system basically simulates rainfall in that water is applied through overhead spraying. Sprinkler irrigation systems are sometimes known as overhead irrigation systems.
• Localized irrigation is a system where the water is distributed under low pressure through a piped network, in a pre-determined pattern, and applied as a small discharge to each plant. There are several types: drip irrigation (where drip emitters apply water slowly to the soil surface), spray or micro-sprinkler irrigation (where water is sprayed to the soil near individual plants or trees), and bubbler irrigation (where a small stream is applied to flood small basins or the soil adjacent to individual trees). Other terms commonly used to refer to localized irrigation are micro-irrigation, trickle irrigation, daily flow irrigation, drop-irrigation, sip irrigation, and diurnal irrigation.

26. Sources of irrigation water

• Refers to whether irrigation water used on the holding was obtained from the given sources. A holding may obtain water from more than one source.
• Usually, source of irrigation water refers to the original source of the water. Thus, if a canal network is used to distribute water from a dam to farmers, the source of the water is the dam, not the canal.

27. Temporary Crops
   • those with a less than one year growing cycle
   • data on the temporary crops are collected in respect of a twelve-month reference period to reflect the crops grown in all seasons of the year

28. Permanent Crops
   • crops with a more than one year growing cycle
   • reference period is usually at the time of enumeration

29. Compact plantation
   • Includes plants, trees and shrubs planted in a regular and systematic manner, such as in an orchard.
   • Plants, trees or shrubs forming an irregular pattern but dense enough to be considered as an orchard, are also considered a compact plantation.

30. Area of permanent crops
   • Refers to the area of the crops at a single point of time, usually the day of enumeration.

31. Scattered plants
   • Those planted in such a manner that it is not possible to estimate the area.

32. Area planted
   • Refers to the area of land, which is planted with crop of the same type or different crops as many times within the reference period;
   • If the area is planted with crops more than once, it will be equal to the sum of the area planted for all cropping seasons.

33. Successive crops
   • Refer to the temporary crops grown more than once on the same land in the same agricultural year;
   • May involve the same crop or different crops and is important in countries with more than one cropping season.

34. Inter-planted crops
- Refers to a crop planted between rows of another crop in a particular plot or field.

35. Mixed crops
- Refer to more than one crops are grown unsystematically in a plot or field.

36. Associated crops
- Refer to temporary crops grown in a compact plantation of permanent crops.

37. Production
- Refers to the actual quantity of produce, after drying and processing ready for sale or consumption, and after deducting pre-harvest, harvest and post-harvest losses
  - Reference period: survey reference year.

38. Fertilizers (for the holding)
- Refer to mineral or organic substances, natural or manufactured, which are applied to soil, irrigation water or a hydroponic medium, to supply plants with nutrients or to enhance plant growth.
  - For all types of fertilizers, usage data usually refer to a twelve month period, usually the survey reference year.

39. Mineral fertilizers (for the holding)
- These are prepared from inorganic materials manufactured through an industrial process.

40. Organo-mineral fertilizers (for the holding)
- These are materials obtained through blending or processing organic materials with mineral fertilizers to enhance their nutrient content and fertilizing value.

41. Organic fertilizers (for the holding)
- These are prepared from processed plant or animal material and/or unprocessed mineral materials (such as lime, rock or phosphate) containing at least 5% of combined plant nutrients.

42. Source of seed inputs for each major crop type (for the holding)
- Refers to how seeds were acquired.
  - Seeds refer to any planting material, including seeds themselves, seedlings, cuttings, and small plants or trees.
• Self-production refers to seeds obtained by setting aside a portion of the previous year’s crop for use as seed for the current crop.
• Exchanges within community are seeds obtained through loans, gifts, or other forms of reciprocal assistance, including seed-for-seed exchanges between farmers.
• Local market refers to the purchase of seed, either for cash or in exchange for other commodities, through markets, itinerant traders or localized trade networks.
• Seed company refers to seed purchased from a seed producer or supplier through a commercial arrangement.
• Donation refers to donations of seed from national or international institutions.

**Reference period:** survey reference year.

43. Sources of agricultural information

• Refer to where the holder received information to help manage the agricultural holding. This includes information on weather, selection of crop varieties, new agricultural practices, farm machinery, credit facilities, plant diseases and pests, marketing, and commodities or crop varieties being promoted by the Government.

44. Sources of agricultural extension

• Refers to the use of agricultural extension services by the holding during the survey reference year. It refers to personal contact with extension personnel or direct participation in extension activities such as a farm demonstration. It does not include accessing extension material through printed brochures, radio, television or the Internet. Also, extension services should be limited to formal contacts with extension workers specifically employed for that task; advice received from other informal sources should not be included. A farmer may have received extension services from more than one source.
• Agricultural extension refers to the provision of agricultural advice and information to crop and livestock producers. Extension services may be provided by government institutions, non-government organizations, farmer organizations, educational institutions, informal grass-roots organizations, and others. Extension services may cover advice to farmers in areas such as farm management, selection of crop varieties, use of inputs such as fertilizers, credit, farm mechanization, animal health, plant protection, sustainable development, and marketing. Extension services may also be used by Governments to distribute inputs, disseminate market information, and promote the production of particular commodities or crop varieties.

**Raising of Livestock**

1. Livestock

• Refers to all animals, birds and insect kept or reared in captivity mainly for agricultural purposes;
Include cattle, buffaloes, sheep, goats, and pigs as well as poultry, bees and silkworms;
Domestic animals such as dogs and cats, are excluded unless they are being raised for food or for agricultural purposes;
Number of animals is the animal population at a specific point of time, usually the day of enumeration.

2. Raising livestock in the holding

- A holding is raising an animal if it has primary responsibility for looking after the animal on a long term basis and making day-to-day decisions about its use.
- Most holders own and raise their own animals, but sometimes they raise animals belonging to someone else under some form of lease agreement, which may involve payment in cash or in other forms such as a share of the livestock produce.
- A distinction has to be made between raising an animal and being employed by an animal owner to look after the animals, where the animal owner is the decision-maker.

3. Number of animals by age and sex

- Age of livestock data are collected in suitable age groupings depending on the livestock type and sometimes the breed of animal. Typical age groupings are as follows:
  - Cattle and buffaloes: less than 1 year; 1 year or more to less than 2 years; and 2 years or more
  - Sheep, goats and pigs: less than 1 year and 1 year or more
  - Horses, camels, mules/hinnies and asses: less than 1 year; 1 year or more to less than 2 years; 2 years or more to less than 4 years and 4 years or more
  - Poultry: young birds (example: less than 3 weeks) and adult birds
  - Other animals: according to circumstances.
- The reference period for the collection of all data on the animal numbers is a single point of time, usually the day of enumeration.

4. Number of animals according to purpose

- Purpose refers to the main reason for the animals being kept. This is usually clear cut as specific breed of animals are used for certain purposes, which will depend on the type of livestock and local conditions.
- Normally the following purposes are:
  - Cattle and buffaloes: milk; meat; draught power; breeding
  - Sheep and goats: milk; meat wool; breeding
  - pigs: meat; breeding
  - Horses, camels, mules/hinnies and asses: milk; meat; draught power; breeding
  - Poultry: meat, eggs. breeding
  - Other animals: according to circumstances.
- To assess the main purpose, reference to be made to the main use of the animals during the reference year or the intended main use in the future.

5. Number of animals born
6. Number of animals acquired

- Refers to purchases or other livestock acquisitions by the holding during the reference period. This includes animals received as gifts or as payment for work.

7. Number of animals slaughtered

- Refers to the number of slaughtering during the reference period of animals that were being raised on the holding. This includes slaughtering carried out on the holding, as well as slaughtering carried out by someone else on behalf of the holding. Sales of live animals for slaughtering, for example, to an abattoir and slaughtering of other people’s animals on the holding should not be included.

8. Number of animals disposed of

- Refers to sales or other disposals during the reference year of animals being raised on the holding. It includes animals sold, as well as animals given as a gift, for payment for services, or for other reasons. Two types of disposal are shown.

- Sold or otherwise disposed of for slaughter includes all disposals of animals for the purpose of slaughtering. This is usually in abattoirs, meat packing plants or butchers’ shops, but also includes donations of animals for slaughter for festivals and other community events.

9. Number of animals died from natural causes

- Refers to deaths from natural causes during the reference year of animals that were being raised on the holding at the time of their death.

**Fisheries Activity**

Fisheries include the following activities in the sea, river, lake, pond, etc:

- Capturing fish and other marine products either the lagoon or within the reef or outside or over the reef through the use of different fishing methods and with or without fishing vessel/boat; deep-sea fishing is included here;
- Collecting or gleaning or clearing sea shells, sea cucumber, and other sea products along the shore;
- Raising fish through fish farming or aquaculture.

**Aquaculture Activity**
Aquaculture is the farming of aquatic organisms such as fish, crustaceans, mollusks and plants. Farming of aquaculture refers to some intervention in the rearing process to enhance production, such as regular stocking, feeding and protection from predators.

Aquaculture normally involves rearing of organisms from fry, spat or juveniles. Aquaculture may be carried out in ponds, paddy fields, lagoons, estuaries, irrigation canals or the sea, using structures such as cages and tanks. It may be in fresh water or saltwater.