

CHAPTER 7

AGRICULTURE & ALLIED SECTORS

Agriculture is one of the most important sectors in urban area. Urban agriculture is part of the urban ecological system and can play an important role in the urban environmental management system.

This chapter deals with the analysis of significant primary production sector in planning area which includes Agriculture, Animal Husbandry and

Fisheries. The existing scenario, major issues and future potentials are studied here.

7.1 AGRICULTURE

Urban agriculture can be defined as the growing of plants and the raising of animals within and around cities. The most striking feature of urban

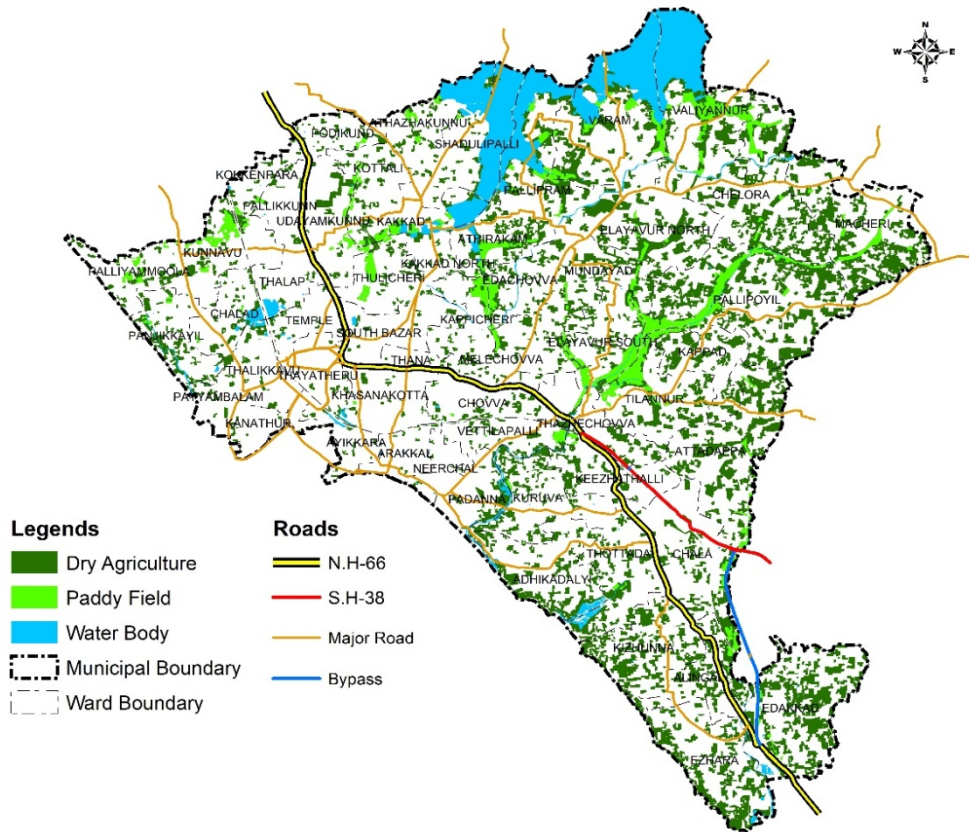


Figure.7.1 Existing agricultural land use

agriculture is that it is integrated into the urban economic and ecological system. The urban agriculture is embedded in and interacting with the urban ecosystem. Such linkages include the use of urban residents as labourers, use of typical urban resources (like organic waste as compost and urban wastewater for irrigation), direct links with urban consumers, direct impacts on urban ecology (positive and negative), It being part of the urban food system, competing for land with other urban functions, is influenced by urban policies and plans.

7.1.1 EXISTING STATUS

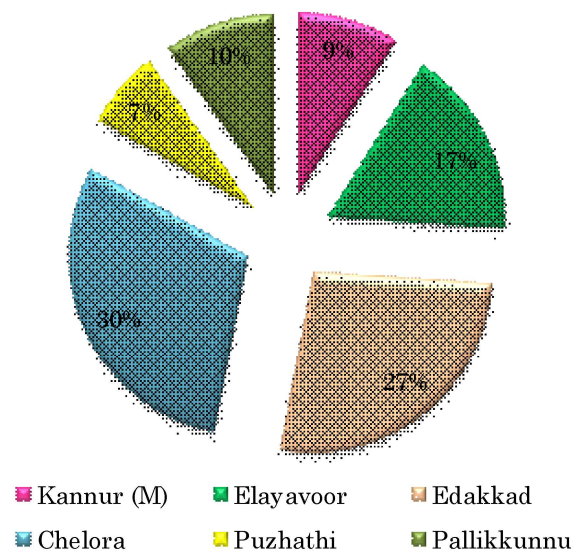
Kannur Corporation area is formed by merging Kannur Municipality with surrounding five Grama Panchayaths.

The existing agricultural land distribution is shown in Figure.7.1. From the figure, it is evident that the agricultural activities are predominant in north eastern and eastern part of the planning area. Area under dry agriculture activities is only 15.339 km² (19.59%) whereas that of paddy cultivation is 2.916 km² (3.72%).

Chelora, Macheri, Pallipoyil, Kappad, Attadappa, Edakkad and Kizhunna are the wards where dry agricultural activities are predominantly concentrated.

The zonal wise land utilization for agricultural purpose is shown in Figure.7.2. out of the entire

agricultural activities in the planning area, about 30% of the activities are concentrated in Chelora zone and 27% of activities are concentrated in Edakkad zone. Agriculture activities within Pallikunnu (10%), Kannur (9%), and Puzhathi zones (7%) are the least as these areas are highly urbanized.



Source: BSLLD data Kannur Corporation, 2017

Figure.7.2 Zone wise land utilization for agriculture purpose

The Table.7.1 shows the extent of total agricultural land use in Kannur Municipal Corporation area which indicates, that good stretches land remain uncultivated.

Table.7.1 Extent of land use in Kannur Corporation area

| Sl. No. | Particulates | Area (km ²) |
|---------|---------------------------------------|-------------------------|
| 1 | Total Geographical area | 78.38 |
| 2 | Land put to agriculture use | 55.37 |
| 3 | Cultivating land | 52.49 |
| 4 | Waste land (cultivable) | 0.81 |
| 5 | Waste land (non-cultivable) | 1.03 |
| 6 | Waste land (meadows) | 0.03 |
| 7 | Cultivating paddy land | 1.0976 |
| 8 | Non cultivable paddy land | 0.5220 |
| 9 | Cultivable non cultivating paddy land | 0.8424 |

Source: Vikasana Report 2017, Kannur Municipal Corporation

Major Crops

• Paddy

The zonal wise paddy concentration is shown in Figure.7.3 which reveals that maximum share of paddy concentration in the planning area is located in Chelora zone (42%) followed by Elayavoor (31%) and Puzhathi Zone (11%). The least concentration is found in Kannur zone which is due to high urbanization activities. Due to the urbanization trend, the paddy fields are vanishing day by day and existing paddy fields need protection in the future.

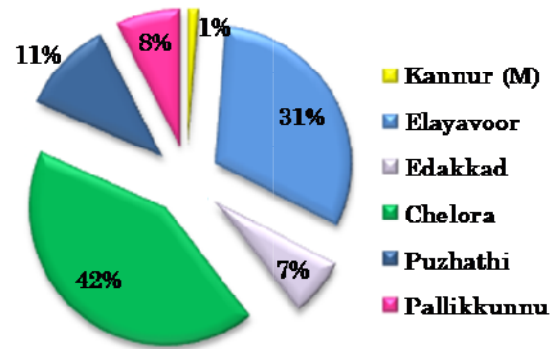


Figure.7.3 Paddy Concentration in zone wise

The Figure.7.4 shows the percentage area under different cash crops among which coconut cultivation land constitute the major percentage. The remaining categories range from 0 to 10%.

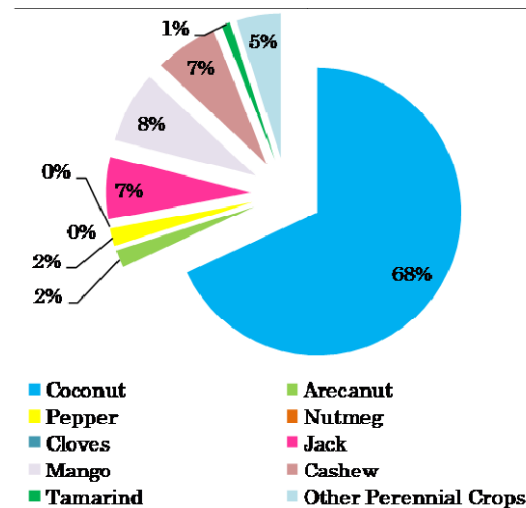


Figure.7.4 Cultivation area details of cash crops

Other Crops

The percentage of area under other crops like Tapioca, Turmeric, Pulses, Plantain, Vegetables and other tubers constitutes the major contribution (63%) followed by Plantain (17%) and other tuber crops (10%) and other tuber crops (10%).

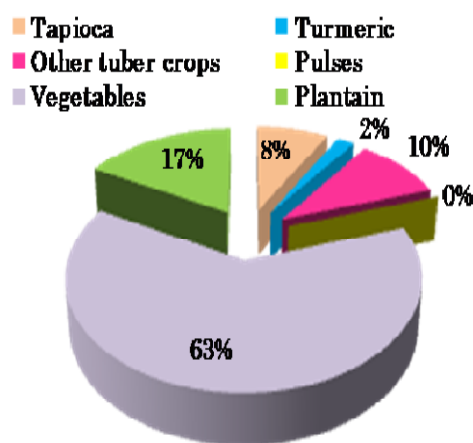


Figure.7.5 Percentage area under other crops

The details of the yield of some crops are given in Table.7.2.

Table.7.2 Details of yield of some crops

| Crop | Yield/Year |
|-------------------|----------------|
| Paddy | 3MT/Ha |
| Coconut | 40 Nuts/Pollen |
| Plantain | 15 MT/Ha |
| Vegetables | 10MT/Ha |
| Tapioca | 15MT/Ha |
| Other tuber crops | 25MT/Ha |
| Spices | 1.5MT/Ha |

Source: Vikasana Report 2017, Kannur Municipal Corporation

Irrigation Facilities

The entire planning area is not covered by any proper irrigation facilities. Mostly, ponds and wells are used for irrigation purpose. The source for existing irrigation facilities in Kannur Municipal Corporation area is listed in Table.7.3.

Table.7.3 Existing Irrigation Facilities

| Sl. No. | Irrigation Facility | Number | Area (Ha) |
|---------|---------------------|--------|-----------|
| 1 | Public Pond | 51 | 35 |
| 2 | Private Pond | 30 | 13.5 |
| 3 | Public Well | - | - |
| 4 | Private Well | 19715 | 1284 |
| 5 | Bore well | 237 | 39 |
| 6 | Streams | 44 | 104 |

Source: Vikasana Report 2017, Kannur Municipal Corporation

The two major rivers in the planning area; Kanampuzha and Kattamballi also facilitate local irrigation.

Infrastructure Facility

The agricultural infrastructures facilities available within the planning area are shown in Table.7.4 which indicates that only considerable amount of facilities are currently available to boost the agriculture sector.

Table.7.4 Available Infrastructure Facilities

| Agricultural Infrastructure | Number |
|-----------------------------------|--------|
| Krishibhavan | 6 |
| Nurseries | 7 |
| Organic manure units | 17 |
| Fodder units | 8 |
| Agri - related Govt. institutions | 2 |
| Marketing centers | 6 |
| Poly houses | 10 |
| Fertilizer depots | 16 |
| Pesticide depots | 5 |

Source: BSLLD data Kannur Corporation, 2017

Equipment Facilities

The Table.7.5 shows the details of equipment provided by the Krishibhavan to support the agricultural activities. The table reveals that basic equipment is available in each zone, but is minimal.

Table.7.5 Equipment Details

| Sl. No. | Equipments | Number |
|---------|------------|--------|
| 1 | Tractor | 4 |
| 2 | Tiller | 7 |
| 3 | Sprayer | 55 |
| 4 | Thresher | 1 |

Source: BSLLD data Kannur Corporation, 2017

Farmers Details

The Table.7.6 shows the details of farmers in the Corporation area. Approximately 17,504 farmers are engaged in agricultural activities out

of which 6,264 farmers are registered under farmer's registration scheme.

Table.7.6 Farmers Details

| Sl. No. | Particulars | Number |
|---------|--|--------|
| 1 | Total farmers | 17504 |
| 2 | Farmers registered under Farmers Registration Scheme | 6264 |
| 3 | Farmers receiving assistance/subsidy under various schemes | 8336 |
| 4 | No. of farmers enrolled for Karshaka Pension | 916 |
| 5 | Farm families | 9020 |
| 6 | Farmers enrolled in Power Tariff Scheme | 70 |

Source: BSLLD data Kannur Corporation, 2017

7.1.2 INFERENCE

From the analysis of agriculture sector in the planning area, agriculture cannot be promoted as a key sector because the area has already shifted from agriculture to non-agriculture activities and the extent of land available for agriculture use in the Corporation limit is less. During the analysis, the following issues are identified:

- Lack of trained laborers for paddy cultivation
- Lack of proper irrigation facilities
- Lack of infrastructure facilities
- Lack of agricultural markets

- Lack of support for urban farming activities
- Lack of supply of good quality seeds at right time
- Absence of agro clinical service centres
- Saline water intrusion at coastal area affecting the productivity of coconut
- Lack of programs to promote cultivation in fallow land

Various trainings and supports may be provided to promote urban agricultural activities such as production of vegetables and fruits at ones own houses and compounds. Also agricultural activities can be promoted in the areas where the mixed agriculture and residential land use is largely found.

7.2 ANIMAL HUSBANDRY

Animal husbandry is a branch of agriculture concerned with the care and management of livestock. It deals with the feeding, breeding, housing and health care of livestock for getting maximum benefits. Livestock refers to farm animals (domesticated animals) such as cow, sheep etc. kept by humans for useful commercial purpose. It also includes poultry farming and fisheries. While analysing the physical and production status, it is revealed that animal husbandry sector has enough potential in the planning area.

7.2.1 EXISTING STATUS

The details of number of animals in the planning area are analysed from livestock Census 2019. Total number of cattle, goat, pig, and poultry are 2007, 1541, 59, and 42282 respectively. Number of families involved in animal husbandry sector are 1202.

The Figure.7.6 shows the zone wise household livestock details of Kannur Municipal Corporation area. Household poultry is largely concentrated in Edakkad zone followed by Chelora, Puzhathi and Elayavor zone. Household cattle production is mainly concentrated in Chelora followed by Edakkad and Elayavor zones. The least number of livestock production is seen in Pallikkunnu zone.



Regional Poultry Farm, Mundayad

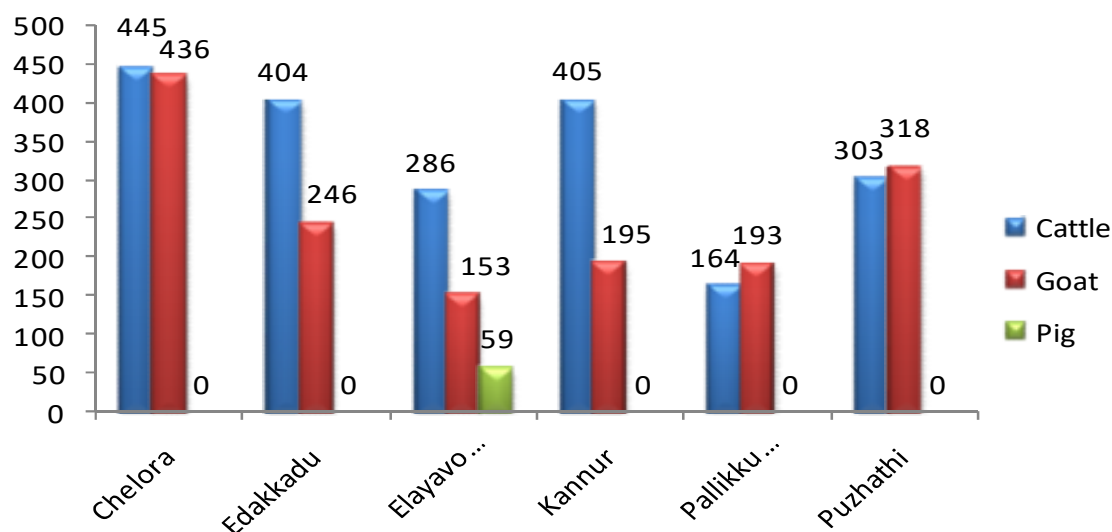


Figure.7.6 Details of household livestock

Infrastructure Facilities

Regional Poultry farm, Mundayad is the only one government farm in the planning area and it is one of the few Regional Farms of KERALA, attached with Piggary. It has got a high tech breeding laboratory for the latest chicken breeds. Their exporting target is Chicken/eggs up to 23 million US dollar per year.

Moreover, in private sector, about 25 dairy farms, 15 goat farms and 1 poultry farm are functioning in the Corporation area. Five veterinary hospitals, six veterinary sub centres etc. are present in the planning area to provide medicine and treatment facility to various household animals.

Regional Disease Diagnostic Laboratory, Kannur

This institution is functioning along with the District Veterinary Centre campus at Kannur. Recently, the laboratory has been upgraded as a Regional Disease Diagnostic Laboratory under Chief Disease Investigation Office, Palode with a view to look after the disease conditions of the northern districts of Kerala. The main aim of the institution includes:

- Disease investigation
- Diagnosis and forecasting of major diseases
- Outbreak management
- Disease surveillance
- Monitoring health status in livestock and poultry farms
- Conducting training programmes, awareness camps etc.

- Collection, preservation and despatch of samples for National surveillance of certain diseases

Slaughter house

One slaughter house is located at Kakkad town which is owned by the corporation.

Dairy Units

The Table.7.7 shows the details of dairy units in Kannur Corporation area. About 5 dairy units are functioning in the planning area with a total production of 2 lakh litre per year.

Table.7.7 Details of Dairy units

| No. of Dairy Units | No. of Members | No. of Producers | Production (year) |
|--------------------|----------------|------------------|-------------------|
| 5 | 533 | 490 | 2 Lakh Litre |

7.2.2 INFERENCE

The planning area has considerable share in both animals and production of milk. Increasing urbanization activities has reduced the availability of fodder. The cost of feed has increased so that cattle rearing has become non profitable for small scale farmers. However, the scope of development of animal husbandry sector in future will be promoted because of availability of

infrastructure facilities such as Veterinary hospital, Disease Diagnostic Laboratory etc. Animal Husbandry activities are suitable in the semi urban and rural wards.

7.3 FISHERIES

Western boundary of the Municipal Corporation area completely falls in coastal stretch. Hence marine fishing sector has higher importance in the planning area. Large number of fishermen families resides in Arakkal, Thayyil, City, Ayikkara, and Vethilapally wards. Considerable extent of Kattamballi River at Pulluppikadavu provides potential for inland fishing activities too. However, compared to marine fishing, inland fishing is unorganized and has not at all flourished in the planning area. Hence fisheries sector can be considered as a potential production sector.

7.3.1 EXISTING STATUS

Natural Resources

The western side of Kannur Municipal Corporation area is blessed with a sea shore of 17 km length which is about 20.73 % of coastal stretch of the District. From the primary survey, it is found that the main marine fish landing centre within the planning area is Mappila bay and the other landing centres are Ezhara, Kizhunna and Kadalayi area whereas inland

fishing activities are mainly concentrated at Kattamballi River side. Figure.7.7 shows the location of potential fishing areas in the Corporation area.

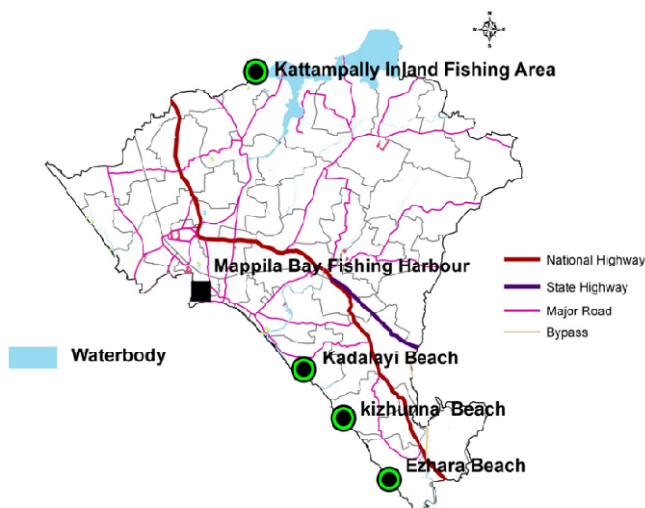


Figure.7.7 Location of available fish landing centres

Table.7.8 Different means of fishing used in planning area

| Non-Motorized | OBM | Trasler | IBM | Thanguvallam |
|---------------|-----|---------|-----|--------------|
| 48 | 592 | 46 | 7 | 9 |

Infrastructure

The major means of fishing includes catamaran, small canoes, out board motor fitted boats, mechanized boats and fishing nets. The different means of fishing practiced in planning area are represented in Table.7.8.

The ancillary facilities including fish markets, curing yard, drying yard and ice plants etc. are available at Ayikkara area. The major fish markets are located at Ayikkara, Kakkad,

Human Resources

As per Vikasana Report 2017, about 1666 persons registered as fisherman and 270 persons registered as allied employees. As per fisheries department record, four areas are identified as fishing villages They are Thayyil, Kannur City, Edakkad and Kannur Ulnadan. These fishing villages are located at Puzhathi, Kakkad, Kottali, Athazhakunnu, Shadhoolipalli, Valiyannur, Chelora, Varam, Ezhara, Edakkad, Kizhunna, Thottada, Adhikadalayi, Kuruva, Padanna, Neerchal, Arakkal, Ayikkara and Payyambalam wards.

Varam, Central market and Thazhe Chovva area.

7.3.2 DEVELOPMENT POTENTIALS

- Presence of large coastal stretch opens up scope for new fish landing centres, Matsyabhavan, Fish drying units etc.
- Scope for establishment of micro enterprises for value added products

- Utilizing the potential of Kannur International Airport, Azheekode Sea Port for setting up of Export units

7.3.3 DEVELOPMENT ISSUES

From the sectoral analysis, the following problems are identified in fisheries sector:

- Increasing price of kerosene and diesel resulting in increased cost of fish collection
- Inadequate facilities for keeping fishing net, boats etc.
- Absence of periodic maintenance of coastal road
- No effective waste disposal system in market
- Absence of fish farms

- Absence of adequate value addition and export units

7.3.4 INFERENCE

The availability of water resources offers great potential on fishing activities in the planning area. Lack of sufficient infrastructure facilities as well as encouragement to the fishermen is a major issue of this sector. Hence it should be addressed. Also, ornamental fish culture is an emerging sector with opportunities for self-employment and income generation, A new market exclusively for such fish farmers to sell their products is essential to fetch fair value.