



**GOVERNMENT OF KERALA
KERALA STATE PLANNING BOARD**

**FOURTEENTH FIVE-YEAR PLAN
(2022-2027)**

**WORKING GROUP ON
KASARAGOD PACKAGE**

REPORT

**AGRICULTURE DIVISION
MARCH 2022**

FOREWORD

Kerala is the only State in India to formulate and implement Five-Year Plans. The Government of Kerala believes that the planning process is important for promoting economic growth and ensuring social justice in the State. A significant feature of the process of formulation of Plans in the State is its participatory and inclusive nature.

In September 2021, the State Planning Board initiated a programme of consultation and discussion for the formulation of the 14th Five-Year Plan. The State Planning Board constituted 44 Working Groups, with more than 1200 members in order to gain expert opinion on a range of socio-economic issues pertinent to this Plan. The members of the Working Groups represented a wide spectrum of society and includescholars, administrators, social and political activists and other experts. Members of the Working Groups contributed their specialised knowledge in different sectors, best practices in the field, issues of concern, and future strategies required in these sectors. The Report of each Working Group reflects the collective views of the members of the Group and the content of each Report will contribute to the formulation of the 14th Five-Year Plan. The Report has been finalised after several rounds of discussions and consultations held between September to December 2021.

This document is the Report of the Working Group on “Kasaragod package”.The Co-Chairpersons of Working Group were Dr D. Sajith Babu IAS and Smt.Bhandari Swagat Ranveerchand IAS. Dr.R.Ramakumar, Member of the State Planning Board co-ordinated the activities of the Working Group. Sri.S.S.Nagesh, Chief, Agriculture Division was the Convenor of the Working Group .The terms of reference of the Working Group and its members are in Appendix 1 of the Report

Member Secretary

PREFACE

As part of formulation of the 14th Five Year Plan, the Kerala State Planning Board had constituted working groups of experts in all the major sectors. In Agriculture and Allied Sectors, 6 working groups were constituted viz. Agriculture and Cooperation, Animal Husbandry and Dairy, Inland and Marine Fisheries, Forest and Environment, Water Resources and Regional Packages. To discuss and frame policies in each of these sectors, the working groups were further divided into 28 Expert Sub-Groups (ESG) with specific mandates.

Each Expert Subgroup held at least three meetings beside one focused group meeting before finalising the report. We, the Co-Chairs, place our deep appreciation and gratitude to all the esteemed members of the ESG for their valuable contributions in preparing the report. We are extremely grateful to Dr. V. K. Ramachandran, the Honourable Vice-Chairperson, Kerala State Planning Board, Dr. R. Ramakumar, Member, Kerala State Planning Board and Sri. S. S. Nagesh, Chief, Agriculture Division for their consistent guidance and suggestions in preparing the report. The drafting team put in commendable work in bringing together all the views and opinions of the members. We sincerely hope the recommendations in the report can lead to important changes in the public policy for the holistic development of Kasaragod District.

Dr D. Sajith Babu IAS
Expert co-chairperson

Smt. Bhandari Swagat Ranveerchand IAS
Official co-chairperson

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KASARAGOD PACKAGE

PART-1
CHAPTER 1
TERMS OF REFERENCE

Global Investment Trends

- To assess the design and performance of the present Kasaragod Package
- To identify the major issues in Kasaragod's rural economy and suggest measures to incorporate them better in the Kasaragod Package.
- To suggest measures to target the delivery of services under the Kasaragod Package better
- To suggest measures to include LSGI programmes in the Kasaragod Package
- To suggest a framework for the regular assessment of progress under Kasaragod Package.
- To suggest measures to improve the system of monitoring of schemes under Kasaragod Package.

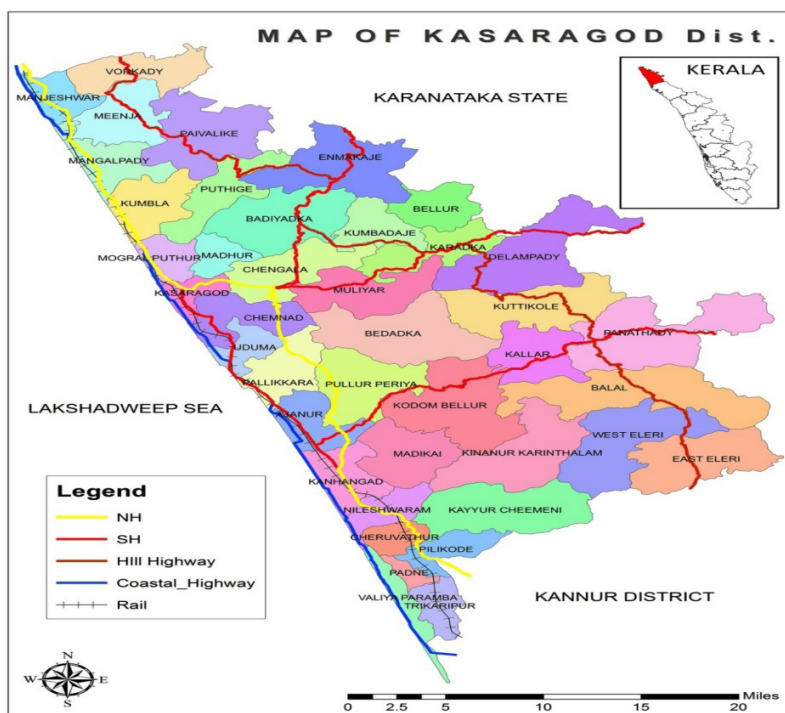


Figure 1:District map of Kasaragod

CHAPTER 2

DESIGN AND PERFORMANCE OF THE PRESENT KASARAGOD DEVELOPMENT PACKAGE (KDP)

Kasaragod, the northern most district of Kerala was formed on 24th May 1984. Kasaragod is known as the land of Gods, beaches, rivers, hills, and forts. The uniqueness of the district is evident in features like multiple spoken languages, intermingling of various cultures, large concentration of religious and linguistic minorities, and vast stretches of laterite terrain. The physical and social infrastructure of the district has not advanced to the level of other districts in Kerala.

To strengthen the development aspirations of Kasaragod, the government launched a special developmental programme known as 'Kasaragod Development Package' during the year 2013-14. The report of the commission that put for the package envisaged a total outlay of Rs.11,123.07 crore which includes shares from the Government of Kerala, Government of India, central PSUs and private sectors, external agencies, and other sources covering various sectors. The outlay proposed in the commission report addresses the backwardness of the district based on ongoing schemes as well as from additional funds from State and Central Government including contributions from the private sector.

CHAPTER 3 PROJECT GOVERNANCE FOR KDP

For the implementation of KDP, the government issued guidelines as per G.O(Rt) No.373/2014/Plg. Dated 13.08.2014. The Government also constituted the following committees for the effectuation of the proposals in the Dr.P.Prabhakaran Commission Report.

State Level Empowered Committee (SLEC)

As per the G.O.(Rt) No.392/2013/PLG dated 10.10.2013, an Empowered Committee was constituted at the state level for the implementation of the proposals in the Dr.Prabhakaran Commission report with Chief Secretary as the chairman and Planning Secretary as the convener for planning, prioritising, and finding the sources of funding and monitoring the progress in implementation.

District Level Committee (DLC)

As per the G.O.(Rt) No.337/2019/P&EA dated 25.07.2019, a District Level Committee was constituted for granting administrative sanction to projects below rupees five crore under KDP under the chairpersonship of the district collector.

District Level Technical Committee (DLTC)

A District Level Technical Committee was constituted as per G.O.(Rt)No. 59/2018/P&EA dated 29.01.2018 for providing technical sanction to the projects under KDP, for approving tender excess for works with the financial powers of Chief Engineer, to approve the revised estimate within the A.S. amount, to select an external agency for consultation and preparation of design and plan for the projects under KDP if needed etc. The Government as per GO(Rt) No.6/2019/Planning dated 06.02.2019 appointed a Special Officer for KDP. A project implementation unit (PIU) was also constituted. Assistant Engineers and Overseers have been appointed on contract basis in various implementing departments for the timely implementation of projects.

The committee headed by the District Collector and district officers of the concerned department as members, and Special Officer as convener identify the schemes/projects on priority basis for implementation in the district.

Implementation Of Projects Under KDP

Different projects under Kasaragod Development Packages are implemented by various departments and agencies including PWD (buildings), PWD (roads), PWD (bridges), LSGD division, irrigation division, minor irrigation, KSEB, KWA, agriculture, industries, tourism, health, and education.

CHAPTER 4 RESOURCE MOBILISATION

Resource mobilisation is a crucial step for the timely execution of the special development package, and all possible avenues for leveraging resources are suggested in the report. The major sources of funding for the implementation include the state and central governments, external agencies, private and central PSUs, and others.

Apart from the state plan fund, central schemes, share of external agencies, department fund, other sources of funds such as contribution from LSGIs, Public–Private Partnership (PPP), private investment, beneficiary contribution, and CSR can be mobilised for the implementation of Kasaragod Development Package

Financial Year	Budget Outlay	A.S. Amount	No. of projects for which AS received	Completed Projects	Ongoing Projects
2013-14	2500.00	2790.67	28	28	0
2014-15	7500.00	9332.94	25	23	02
2015-16	8500.00	9751.49	80	74	06
2016-17	8798.00	14299.84	81	74	07
2017-18	9000.00	7629.72	64	52	12
2018-19	9500.00	7882.22	82	47	35
2019-20	9065.00	9048.73	50	17	33
2020-21	7500.00	7500.00	73	04	69
Total	62363.00	68235.61	483	319	164

Kasaragod is a district with many NRIs and NRKs. Due to the unforeseen impact of the COVID-19 pandemic, many of them lost their jobs and are desperately looking for local jobs, self-employment opportunities, and profitable business enterprises in the district since remigration is difficult for them. The district has extensive barren lands suitable for the establishment of industries and agribusiness enterprises. There is vast scope for developing farm tourism, beach tourism, hill tourism, adventure tourism, historical tourism, cultural tourism, health tourism etc. **The involvement of NRIs and NRKs** in such ventures will generate more employment. The only thing requirement is the provision of necessary infrastructural facilities and promotional activities. In order to attract private investment and involve the public in the integrated development of Kasaragod district, some of the **commonly adopted forms of PPPs** are also suggested. They include build-operate-transfer (BOT) and its variants, build-own-operate-transfer (BOOT), build-lease-transfer (BLT), design-build-operate-transfer (DBFOT), operate-maintain-transfer (OMT), management

contract, and service contract. **Private investment can be pooled through investors meets** with the active support of People's representatives, LSGIs, NRIs and NRKs. The governments have approved the organization of investors meet for attracting private investment.

PART-II
CHAPTER 5
RURAL ECONOMY – FEATURES AND ISSUES

Physiography and Geology of Kasaragod

Kasaragod is bounded on the north and east by the Dakshina Kannada and Coorg districts of Karnataka State, on the south by Kannur district, and on the west by the Lakshadweep Sea. The district lies between North Latitude 12° 02' 25" and 12° 47' 35" and East Longitude 74° 25' 54" and 75° 25' 25". It falls in the Survey of India toposheet number 48L and 48P. The district has a total area of 1961 sq. km spread over the north-west and south-east axis.

Geologically crystalline rocks of the Achaean age occupy the entire district except along the coast. A narrow strip of tertiary and recent sedimentary rocks is seen along the coast. Charnockites and gneisses are the crystalline rocks. The crystalline rocks are extensively lateritized. The laterites by virtue of the porous nature form potential aquifers and store groundwater. Lateritic soil is the most predominant soil in the area. Hydrogeologically, Kasaragod block is treated as one of the five critical blocks in Kerala. Tunnel wells and Surangams are unique to the district. Bauxite deposits are extensively reported by Geological Survey of India in the Ananthapuram area of Kumbbla and Kinanoor-Karinthalam in Nileshwaram. Clay deposits are also available in the district. Laterites are extensively seen in the district, and they are of good quality compared to those in the other parts of Kerala. The thickness of laterite varies from 5 to 30 metre. In general, laterite is the lithounite at the surface in the entire district except along the coast and mounds where fresh crystalline surfaces are exposed. Due to the undulating topography, most of the groundwater escapes as subsurface flow and the wells become dry in the extreme summer.

Demography

As per 2011 Census, the district has a total population of 13,07,375 persons of whom 6,28,613 are males and 6,78,762 are females. Density of population is 657/km (provisional data). The literacy rate is 90.09%. The sex ratio is 1080:1000. Rural population is 798328 and urban population is 509047. There are 267762 households of which 165969 are rural and 101793 are urban. The district accounts for 5.13% of the total area of the State.

Scheduled Tribes and Scheduled Castes

The total tribal population of the district is 48857 and the total SC population of the district is 53283. This segment of the population continues to lag behind the general community in terms of education, health, employment, and social mobility. To bring the tribal population to the mainstream of the society concerted efforts are required. The primitive tribes of the district, the Koragas suffer from extreme deprivation. The Koraga, who numbered 16,071 according to the 2001 Census, have their own language, which is a compound of the Kannada, Malayalam, and Tulu languages commonly found in their area. Most of them are landless labourers, though a few continue their traditional skill of basket making. In towns and cities, they are generally engaged in low-paying manual jobs. This community

needs a special strategy for development.

Linguistic Minorities

As per 1991 Census, there were 48933 Kannada speaking people, 17097 Konkani speaking population, 24815 Marathi speaking population, 4988 Urdu speaking population and 106768 Non-Scheduled Language (mainly Tulu) speaking population. Kannada Speaking population constituted 4.57 % of the total population and Konkani, Marathi, Urdu, Non-Scheduled Language speaking population constituted 1.6%, 2.32%, 0.46%, and 9.96 %, respectively of the total population. According to the 2001 Census, there are 1,22,995 people whose native language is Tulu. A large majority of the Tulu speaking population in the State is concentrated in Kasaragod. Some of the initiatives proposed and implemented for the inclusive development of linguistic minorities are:

- Translation and supply of act and rules
- Special cell for linguistic minorities
- Forms in Kannada language
- Government Kannada printing press in Kasaragod
- Kannada-speaking staff be posted
- Survey and revenue records to be bi-lingual
- Selection of Kannada speaking LDCs by KPSC
- Review of special rules
- Kannada media issues
- Bi-lingual display boards
- Problems faced by Kannadigas in education sector
- Safeguards to the linguistic minorities should be implemented
- Kannada academy
- Kerala Tulu academy

Religious Minorities

As per 2001 Census 41% of the total population of the district belong to minority communities. Among them, Christians are 6.69% of the total population and Muslims constitute 37.24%. As per 2001 Census, 7.05 lakh people of the district are Hindus, 4.13 lakh are Muslims, and 0.85 lakh are Christians.

CHAPTER 6

RURAL ECONOMY – STRENGTHS AND WEAKNESSES

The issues that beset the rural economy of Kasaragod are manifold. The rural economy encompasses agriculture, forestry, fishing and aquaculture, handicrafts, dairy, tourism, mining, transport, trade, repair and construction, community, and personal services. The major problems that have been identified are

Problems Related to Individuals and their Standard of Living

- Illiteracy
- Unemployment and under-employment
- Low standard of living
- Lack of technical know how
- Low level of confidence
- Traditionalism, and conservatism
- Illegal activities, crime and violence
- Malnutrition and Under nutrition

Agriculture-Related Problems

- Lack of expected awareness/ knowledge
- Low profitability from Agriculture
- Skill and attitude of farmers
- Unavailability of agricultural inputs,
- Poor marketing facility,
- Insufficient extension staff and services
- Small size of land holding
- Rocky terrain, depletion of top soil
- Sub-division and fragmentation of land holdings,
- Unpredicted rain falls, draught and other environmental factors
- The loss due to biological factors (insects, rodents, etc) and wild animals
- Absence of infrastructure to work and stay in rural areas,
- Primitive technology and low adoption of modern technologies
- Reduced public investment and absence of role for farmers in fixing the prices for their own products.
- Lack of interest for agriculture and allied activities from new generation

Infrastructure-Related Problems:

- Lack of water, electricity, and communication facilities

- geographical inaccessibility and transport facilities
- Lack of sufficient Educational institutions in rural areas
- Lack of needed Health infrastructure and specialist for advanced health care
- Lack of employment-oriented coaching and finishing schools
- Improper storage facilities for agricultural and related sectors.
- Poor sanitation and hygiene
- Homelessness

Economy-Related Problems:

- Inability to adopt high-cost technology
- Excessive cost of inputs,
- Under privileged rural industries,
- Low income
- Indebtedness and existence of inequality in land holdings and assets.
- Inadequate Banking and insurance facilities.
- In fertile areas, absentee landlords own large area and they do not evince much interest in improving the performance of agriculture.
- Large scale migration for employment

Administrative Problems

- Lack of motivation and interest
- Non-availability of agricultural and skilled labourers
- Improper utilization of budget and absence of monitoring and implementation of rural development programmes.
- Less bargaining power and negotiation skills of farmers
- Bureaucratic red tapism

CHAPTER 7

MAJOR COMPONENTS OF RURAL DEVELOPMENT

Rural development is a comprehensive term. It focuses on action for the development of areas that are lagging in the overall development of the village economy. Domains that require particular attention include the development of human resources including – literacy, more specifically, female literacy, education, and skill development – health, addressing both sanitation and public health , land reforms, development of the productive resources of each locality, infrastructure development like electricity, irrigation, credit, marketing, transport facilities including construction of village roads and feeder roads to nearby highways, facilities for agriculture research and extension, and information dissemination, special measures for alleviation of poverty and bringing about significant improvement in the living conditions of the weaker sections of the population emphasising access to productive employment opportunities. The district recently witnessed a massive reverse migration during the COVID 19 situation due to loss of job and income levels of the people especially the NRIs and NRKs.

The district needs policy orientation and foresighted action for the socio-economic development of the district which may be grouped under four broad headings. They are:-

- Water Security
- Food Security
- Financial Security and
- Social Security.

It is expected that the new and innovative proposals based on the above would serve as an addendum to the Kasaragod Development Package.

CHAPTER 8 WATER SECURITY

Water Availability in the District

Kasaragod district often suffers frequent scarcity of water though the district receives 350 cm of annual rainfall. A major share of rainfall is received during the brief period from June to August through the South west monsoon. North east monsoon is very weak in the district, which provides only 11 percent of the total rainfall. The long dry spell adversely affects the agricultural production in the district. Net irrigated area is only 20.69 percent of the total cropped area of the district. The gross water demand for the district works to 983 Mm³ and utilizable water availability at present is 425.8 Mm³. The total water potential of the district as Surface and Ground water sources is estimated as 3013 Mm³. The projected gross water demand for the district assuming that the entire gross cropped area is irrigated has been worked out as 992.57 Mm³. The above data shows a deficit of 566.77 Mm³ and it will be difficult to meet the projected demand with available facilities at a specified point of time especially when reliability factor is considered.

It also emphasizes the need for enhancing the water use efficiency by adopting scientific irrigation practices. Water conserving irrigation methods such as micro irrigation is very much relevant for the district. Studies conducted by Central Plantation Crops Research Institute (CPCRI) has shown that extent of adoption of recommended practices is exceptionally low among the adaptors of micro irrigation and a considerable proportion of farmers in Kasaragod district have discontinued micro irrigation due to various techno-socio-economic reasons. Innovation systems analysis of the discontinuance of drip irrigation technology revealed that improved performance and sustained use of drip irrigation requires not only knowledge of drip by farmers, but also an interactive network of different agencies for its application in the field on a continued basis.

Domestic Water Demand

The domestic water demand is the water requirement for the population of the district to cater to their daily needs like drinking, cooking, bathing, cloth washing, utensil washing, house cleaning, and sanitation requirements. As per BIS code 1172:1993 (Code of basic requirements for Water supply, Drainage and Sanitation Reaffirmed in 2002) the domestic water requirement varies from 40 litres/per capita per day to 135 litres/per capita per day. For habitations in rural areas, per head per day requirement is taken as 55 litre per day per head and for urban habitations in urban area it is taken as 135 litre per day per head.

To meet all these water requirements, it is essential to conserve, rejuvenate and protect the natural water resources. Attention should also be given to store maximum amount of water in the sources to make the rivers and streams perennial.

Ground Water Scenario

The physiographic set up and geological formations are same for Manjeshwar, Kasargod,

Kanhangad and Nileshtar blocks, (the block area starts from the coast and ends on mid-land areas. Similarly deeper water level in laterite is seen in western part of Parappa block. Water level in laterite formation is found shallow in western part of Nileshtar block where the Laterite is formed from the Tertiary formations. The water table fluctuation ranges from 0.30 m to 4.35 metres. Maximum fluctuation is observed in wells located in topographic highs and slopes. In the northern part of the district, in midland areas a common ground water abstraction structure are the tunnel wells (locally known as 'surangams'), which is a horizontal well (Adit) with a width of 50 cm to 75 cm and height of around 2 m. The length of the tunnel well varies from a few metres to 100 metres. Majority of the medium water supply schemes in the districts are by bore wells. The yield of bore well in the district ranges from 500 to 72,000 lph.

Water availability -Challenges faced by the district

Lack of Water conservation reservoirs

During 1990-95, three numbers of medium Irrigation projects namely Kakkadavu Irrigation Project, Payaswini Irrigation Project, and Moonnamkadavu Irrigation Project with a total storage capacity of 310 Mm³ was under investigation. Unfortunately, none of them were implemented. Hence, the district must meet this huge water demand with various minor irrigation projects.

Over exploitation of ground water

The stage of groundwater development in the district as of 2004 was 79.09% leaving limited scope for future development. Out of the six blocks in the district, one is over exploited, four are semi-critical and one is safe.

Saline water intrusion

During summer months the coastal areas of the district like Mangalpady, Manjeshwaram, Kumbala, Mogral Puthur, Chemnad, Uduma, Ajanur panchayats and Nileshtar, Kanhangad and Kasaragod Municipalities are prone to saline water intrusion resulting in crop loss and drinking water pollution.

The department proposes to construct either temporary or permanent structures to check the flow of stream water in the first and second order streams of the district. It will ensure the ground water recharge. In addition to this construction of new ponds and rejuvenation of existing ponds are also proposed in this area to recharge the ground water table.

Irrigation, Minor Irrigation, Soil and Water conservation

Integrated water conservation for the district

The topography of the district is undulating with steep terrain which causes excessive runoff, poor infiltration, and depletion of soil fertility. The district experiences high intensity short duration rainfall. There is no major irrigation project in the district. Even though the district gets an annual average rainfall of 3300 mm, during summer months, the local bodies have to supply drinking water through the tankers in many areas. About 75% of the area

of the district is covered by laterite. Because of the highly porous nature of the laterite, the dug wells tapping laterite get recharged fast in the initial stages of monsoon showers itself. However, this water escapes as sub-surface flow and the water level falls quite fast especially in wells located on topographic high and slopes. Further the delays in monsoon and deficit summer showers severely affect the crops and drinking water availability.

The goals and objectives of water conservation are

- Restoration of eco system through the rejuvenation of major river catchment in the district.
- Rainwater harvesting – catch the rain where it falls. Improve ground water recharging
- Improvement in area under cultivation
- Increased food production
- Reduce silt deposits in the streams and rivers and thus reduce flood damages.
- Resistance to climate change hazards.
- Reduce pressure on ground water resources.
- Reduction in land degradation.
- Employment opportunity to rural.
- Improve crop diversification and cropping intensity
- Awareness on natural resource management
- Improvement in vegetative cover
- Reduction in saltwater intrusion

The scope of water conservation includes

- Survey, demarcation, DPR preparation
- Catchment area protection works such as bunding, terracing, recharge structures, etc.
- Construction of regulators in rivers
- Construction of VCB, SWECBS, etc.
- Construction of major dams and other cost-effective small structures like ring check dams, sheet check dams etc.
- Construction of semi-permanent structures and temporary check dams
- Undertaking river rejuvenation programmes
- Ensuring public participation through awareness campaign, ‘Thadayana Utsavam’, documentation etc.
- Room for river project –construction of ponds, interconnecting canals, renovation of Pallams.

- Desilting, conversion of quarries etc.
- Afforestation activities like Smruthivanam , Miyawaki forest, Bamboo plantation & Bamboo capital project ,Coastal green belt project etc.
- Rainwater Harvesting structures in homesteads and public places
- Water literary campaigns
- Promotion of eco-friendly/ water friendly constructions
- Promotion of micro irrigation
- Promotion of tree-based agriculture and other water harvesting agricultural practices.
- Drainage line treatment works – Loose boulder check dams, gabion check dams, masonry check dams, etc.
- Water harvesting structures – farm ponds, development of springs etc.

The major outcome of the water conservation is that catchment area of 13000 Ha under major rivers in the district will be protected through soil and water conservation measures, and an additional area of 1000 Ha could be brought under cultivation. Eco-restoration, ground water recharging to bring back to the critical limit to safe limit, rural employment opportunities etc. will bring positive impact for the development of the district.

Priority areas to be addressed for Water conservation in the district

- Rejuvenation of Rivers in the district
- Room for River - Construction of interconnecting ponds and renovation of existing ponds.
- Saltwater extrusion cross bars / Regulators
- Flood control works
- Annual Maintenance of Water Conservation structures
- Construction and maintenance of Lift Irrigation schemes / Diversion Canals
- Anti-Sea Erosion works- Coastal Protection –Geo bags & Geo tubes
- Micro Irrigation facilities – drip irrigation, micro sprinkler system
- Check dams- Rubber Check dams / Flexible check dams
- Construction, upkeep and upgrade of water conservation in rivers and streams of the district.
- Modern canal side protection structures (Promotion of modern trends – eco-friendly structures in water conservation)
- Providing water level monitoring scales in water sources in Kasaragod District
- Cost effective water conservation structures-Ring check dams and Sheet check dams.
- Strengthening and side protection of streams and rivers – Integrated approach

- Natural, locally available materials and other methods- Protection of natural habitat in riverbanks.
- Establish water-friendly villages through integrated approach - application of various water conservation methods
- Decomposition & bio-reclamation of laterite zones – converting degraded lateritic soils into productive soil - application of various models and research

Drinking Water

The present level of drinking water supply in the district is grossly inadequate to meet the growing demand. Though the district is blessed with twelve rivers, the potential of these water sources for resolving drinking water shortage has not been fully tapped. Though the district is fortunate to have abundant rainfall, perennial springs, and other water bodies, it is facing a severe drinking water crisis. Climate change and the effect of increasing summer temperature accentuates the gap between the demand and the supply of water. Access to reliable water sources is becoming an increasingly difficult proposition. To improve the supply level in chronically water deficient localities, it is important to put in place systems for meticulous planning, quick decision making, and regular review and monitoring at all levels. Kasaragod was among the 69 districts in the country, which were selected for implementing Sector Reforms Project earlier.

Issues faced

Scarcity of drinking water continues to be a major developmental issue. Hence, there is a dire need to focus on the implementation of new sustainable water supply schemes. The water level in the rivers is decreasing at an alarming rate. In the scorching summer, the rivers are left with parched beds. Most of the open wells get dried up in the early summer. Even before the onset of summer people are compelled to fetch potable water from far off places and tankers are used for supplying drinking water in the villages. Due to lowering of surface water levels, people heavily depend on bore well sources for their drinking water purposes. The ground water is being pumped out faster than it is being replenished resulting in the sudden depletion of ground water table. This is happening on account of excessive exploitation of ground water and inadequate recharge. Stringent norms need to be established to arrest the thoughtless exploitation of ground water. All possible steps may be taken to recharge ground water including promotion of rainwater harvesting. Creation of awareness among the people to strike a balance between the drawing of ground water and its recharge is an immediate need. Water requirement for drinking, irrigation, etc can be met to a considerable extent by adopting new approaches for the optimum conservation of surface water. Over utilization of ground water and underutilization of surface water potential are problems that call for immediate attention. Surface water which wastefully drains into the sea is enough to take care of our drinking water and irrigation needs. Check dams should be constructed in major rivers at regular intervals to facilitate recharging of ground water.

Equally worrisome is the environmental pollution caused due to callous dumping of waste

in public places and water bodies. This is posing alarming health risk making such places breeding grounds for mosquitoes and rodents. The residual seepage from the accumulated waste is polluting the nearby wells making the drinking water unsafe.

Dumping of waste into water bodies, excessive use of pesticides and intrusion of salinity during the summer aggravate the problem of pollution of rivers. Indiscriminate ravaging of hillock and sand mining are also areas of concern.

The misuse of precious drinking water for purposes other than drinking can be noticed across the district. Hence people should be sensitized to use water more judiciously. The civil structures of various WSS constructed years back have weakened over time due to absence of proper maintenance work. There are instances where funds are unavailable. Old pipe lines cannot withstand the optimum pressure that is required for water to reach long distances. Due to ageing, most of the pump sets show frequent troubles resulting in interruption of water supply for days together.

There are also water quality issues in the case of spot sources such as open dug well. The SC/ST colonies are not covered with water supply schemes in a majority of the panchayats. Since the district is blessed with 3500 mm of average annual rainfall spread over a period of six months, the runoff through the twelve rivers is the best reliable source for both drinking and agriculture purposes. Suitably located check dams can be constructed after conducting proper environmental impact assessment (EIA) studies, to tap the runoff from the rivers. From the long-term point of view, the river water collected through in-take structures, treated in water treatment plants, pumped to storage tanks can be conveyed to the community for meeting the drinking water purpose.

Priority areas to be addressed for ensuring drinking water in the district

- Improving distribution network in the district
- Modern desalination plants in the district
- Establishment of Rainwater based packaged water
- District level integrated water quality testing labs
- Documentation of water sources and organising water literacy campaign
- Water testing labs in selected schools at Panchayat level
- Rainwater harvesting structures
- Education/Awareness.
- New conservation technologies.
- Recycle Wastewater.
- Improve irrigation and agriculture water use.
- Water pricing.
- Energy efficient diesel plants.
- Rainwater Harvesting.

- Community governance and partnerships
- Policy and regulation
- Ecosystem management
- Address the issue of pollution

CHAPTER 9 FOOD SECURITY

Food security exists when all people always have physical, social, and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life. The four pillars of food security are: food availability, access to food, utilization, and stability. The following sectors and areas can ensure food security for the district if planned and implemented effectively.

Agriculture and allied services with value addition

Agriculture and occupation

The district falls into three natural divisions, the lowland bordering the sea, the midland consisting of undulating country, and forest-clad highland on the extreme east. The low land is level in topography and has thick groves of coconut and paddy fields. The highland lies on the slope of the Western Ghats with its upper reaches occupied by forests and lower sides by plantation crops like rubber. In between the above lie the midland which occupies the larger area of the zone.

Population is agrarian in the district. Major crops include paddy, arecanut, coconut, rubber, cashew, banana, pepper, tapioca, tobacco, and ginger. Animal husbandry is also a major livelihood support activity. The coastal populace depends on fishing for their livelihood.

The total geographical area of the district is 1,96,133 hectare. Total cropped area has come down from 1,54,797 hectare to 1,38,165 hectare during the period from 2005-06 to 2009-10. Of the farmers, 84% constitute marginal farmers, 11% are small farmers and 5% other farmers.

Kasaragod district is having cash crops as its main stay compared to food crops. Coconut is the single largest crop in the district. Amongst the plantation crops cashew is the most dominant one followed by Rubber and Arecanut. The laterite flats are ideal for cashew cultivation. Area under paddy cultivation has reduced over years. Therefore, there is a need for concerted effort to bring back the farming community to their traditional profession i.e. agriculture by making it more profitable through modern farming practices. Kasaragod is the only district in the state having tobacco cultivation in the coastal sand near BRDC. Central Plantation Crops Research Institute (CPCRI) plays a key role in modernising the agricultural practices.

Illiteracy or traditional conservative mindset obscures the farmer to use of innovative tools and techniques. Ultimately, the farmer cannot survive in the market competition and starts thinking about migrating to urban areas for betterment.

Land use pattern

Due to high density of population, there is an acute pressure for land in Kasaragod district.

The following table shows that in 2009-10, an area of 7915 hectare of land was barren and uncultivable. That is, more than 4% of the total geographic area is barren and uncultivable. The increasing trend of cultivable waste is an indication that more and more people are moving away from the agricultural practices.

Major constraints in agriculture sector

The farming community in the district experiences various constraints in their efforts to make farming a remunerative enterprise. The degradation of natural resources, socio-economic factors like lack of labour, problems related to market and infrastructure facilities, lack of availability of quality planting materials, lack of irrigation facilities, and inadequacies in the technology transfer adversely affect farming. The major constraints are discussed below:

Degradation of natural resources

About three-fourth of the total geographical area of Kasaragod district is under sloppy area. Hence, soil erosion is a severe problem in these areas. Besides the slope, other factors such as undulating topography, high rainfall, deforestation, and unscientific cultivation practices also contribute to the degradation of soil.

Overexploitation of ground water

The stage of ground water development in the district as of 2004 was 79.09% leaving limited scope for future development. Out of the four blocks in the district, one is over exploited, two are semi-critical and one is safe. Future development can be possible in Nileshwar Block which is safe and limited developments in Manjeshwar and Kanhangad Blocks which are in the semi critical category. In the recent years, due to the fall in water level, the dug wells were deepened by 1 to 3 metres in laterite and the crystalline areas.

Sea water intrusion

During summer months the coastal areas of the district like Mangalpady, Manjeshwar, Kumbala, Mogral Puthur, Chemnad, Uduma, Ajanur panchayats and Nileshwar, Kanhangad and Kasaragod Municipalities are prone to sea water intrusion resulting in crop loss.

Fragmentation of holdings

The marginalisation of agricultural holdings due to extreme subdivision and fragmentation, and the decreasing trend in family participation in the farm operations with resultant increase in production costs make the Kerala agriculture more vulnerable.

Lack of irrigation facilities

Kasaragod district often suffers due to frequent droughts though the district receives 350 cm of annual rainfall. A major share of rainfall is received during the brief period from June to August through the South West monsoon. North East monsoon is very weak in the district, which provide only 11 percent of the total rainfall. The long dry spell adversely affects the agricultural production in the district. Net irrigated area is only 29 percent of the total cropped area of the district.

Lack of availability of planting materials

The extent of adoption of high yielding varieties of crops is low in the district. Though there are four seed farms functioning in the district. The research stations functioning in the district including the Regional Agricultural Research Station (RARS), Pilicode, College of Agriculture, Padnakkad and CPCRI are also not able to meet the demand for planting material. Similarly, the discussion on establishing the District Agricultural Farm, though started many years ago, is also yet to bear fruit.

Low productivity of crops

The productivity of most of the crops, except coconut and arecanut, is low in the district when compared to the State average. Several factors such as decline in soil fertility, lack of irrigation facilities, pest and disease incidence, low level of adoption of improved farming practices, lack of effective transfer of technology programmes etc. are attributed to the low productivity of crops.

Lack of storage, processing, and marketing infrastructure

There is ample scope for enhancing the income of farmers through value addition by diversifying the products in major crops grown in the district such as coconut, cashew, vegetables, and fruits.

Lack of availability of organic inputs and bio control agents

Lack of availability of sufficient quantity of organic manure is a major problem experienced by farmers resulting in low soil fertility. Exploiting the situation, the agencies supply inferior quality organic manures at exorbitant rates to the farmers and cheat them.

Crop-Specific problems and strategies for improvement

a) Farm Mechanisation

Farm mechanisation has a key role in increasing production and productivity, better utilisation of irrigation facilities, adoption of multiple cropping pattern, minimising the unit cost of production etc.

b) Plantation and Horticulture

The agrarian economy of the district is dependent on plantation and horticultural crops. Plantation crops in general are either export oriented or import substituting and therefore assume special significance from the national point of view.

c) Storage Godowns / Market Yards

The storage godown and market yard facilities are usually being created by the State Government. The low marketable surplus, inability of farmers to hold the produce up to the right time, lack of awareness etc. have discouraged the setting up of rural godowns.

d) Food and Agro-Processing

The post-harvest loss in the country is in the range 50 to 60 percent of the total production. This loss is due to the lack of facilities for storage, preservation, and value addition to agricultural horticultural produce.

The following measures will improve the profitability of agriculture and allied occupations in the rural areas.

- Establishment of single window for all agri. services and schemes
- Establishment of a hunger-free district
- Pollution free crop production
- Farmers should be aware of the facilities available
- Administration should provide administrative support to fill up online forms
- Skill development for sustainable agriculture practice
- Fair price for farmers
- Value chain with equal benefit sharing
- Promote the value-added products of coconut, cashew, banana, jack fruit, njavara rice, papaya, and other crops of the region to ensure food security and high income to the farmers.
- Promote the business/sales of value-added products by farmers in its final marketable form as a potential means to increase income.
- Promote agri-business and entrepreneurship in agriculture.
- Attract entrepreneurs and self-employment pursuers towards production and marketing of value-added agricultural products.
- Ensure good prices for underutilized/non-utilized raw materials such as jack fruit, cashew apple, papaya, etc.
- Study the consumer acceptance of the value-added agricultural products.
- Sensitize the farmers on the relative advantages in terms of additional income that can be earned through value addition.
- Set up demonstration centre for technology and marketing facilities to the innovative enterprising farmers and newer products.
- Set up a sales outlet for the innovative value-added products.
- Provide trainings to women farmers, SHG groups on value addition and marketing.
- To strengthen existing Food Pro mall for the innovative value-added products
- For marketing products such as virgin coconut oil, mouth wash, hair cream, face cream, desiccated coconut powder, coconut chips, curry paste, coconut chutney powder, coconut pickle, squash, candy, chips, jackfruit halwa, banana halwa, and Nutrigain banana powder in attractive packages and exploring avenues for further value addition of these products.

Scope of Non-Farm Sectors

Rural non-farm economy in recent years is considered as an effectual strategy for

decentralisation of economic activities to rural Kerala. It plays a key role to provide supplementary employment and income source to the small and marginal households which reduce the income disparities in the urban rural households. The non-farm “sector” includes all economic activities in rural areas except agriculture, livestock, fishing. As agriculture is already overcrowded, a major proportion of the increasing labour force needs to find alternate employment opportunities in other non-farm sectors.

The non-farm economy has several segments in it; some possess dynamic linkages that permit healthy growth while others are in subsistence, low productivity propositions. The dynamic sub-sectors include agro-processing industries, food processing industries, leather industry, agro-tourism, handicrafts, household as well as non-household small-scale manufacturing repairs, construction, mining and quarrying, transport, trade, communication, community and personal services etc. Those sectors which have the potential but seriously lack infrastructure and other support include traditional home-based industries like pottery, crafts, handlooms etc. Majority of rural women find employment in agriculture while men look for non-farm employment. In recent times, women have also begun looking for non-farm jobs.

Therefore, development of various non-farm-activities can effectively be exploited in the district as a potent stimulator for further economic growth offering rural communities better employment prospects on a sustainable basis.

Weaknesses

The present weaknesses of the district for the development of nonfarm sector is the provision of needed infrastructural facilities, regulatory restrictions, financial credit, lack of skilled labour and training facilities etc.

Horticulture

Blessed with a varying climate and soil conditions, the district has adopted growing of diverse horticultural crops such as fruits, vegetables, tuber crops, flowers, medicinal and aromatic plants, spices, and plantation crops. These crops play a vital role in providing food and nutrition, besides addressing employment concerns. Horticulture sector contributes nearly one-third of the value of agriculture output and six per cent of Gross Domestic Product of India. The district is producing a variety of fruits like mangoes, bananas, coconuts, cashew nuts, and several spices etc.

Organic Farming

Organic agriculture offers a means to substitute costlier agricultural inputs (such as HYV seeds, chemical fertilisers, pesticides etc.) with locally produced organic inputs that are cheaper and thereby generate good returns on investment. Organic agriculture also generates income through exports as the demand for organically grown crops have high demand. Popularising organic farming requires awareness and willingness on the part of farmers to adapt to new technology.

Priority areas for improving production and profitability in agriculture sector

- Establishment of Agriculture wholesale market / “Agriculture hub”
- Paddy and Vegetable farming & marketing (exporting) Centres of Agricultural products.
- Developing e-Marketing platform and marketing facilitation centre
- Popularisation of high value fruit crops
- Establishment of Coconut wood processing Centre
- Establishment of cold storage chain
- Establishment of Jack, cashew apple and other fruit processing centre
- Tourism circuit connecting agriculture, fisheries, animal husbandry, horticulture and heritage ventures
- Cross boarder monitoring initiative for pesticide control and safe to eat products
- Establishment of technology-based incubation centre
- Establishment of Plant health diagnostic centre
- Development of agroclinic facility.
- Integrated Wedelia (weed) control programme
- Plant quarantine and quality control in the district.
- Conservation of Genetic Resources and Establishment of a Seed Gene Bank Unit
- Establishment of Viral diseases diagnostic facility
- Bamboo cultivation in laterite soil
- Establishment of mushroom production consortium and training Centre-Techno-incubation Centre for Mushroom
- Establishment of agro-incubation centre with special attention to tissue culture in various species
- Paddy processing centres
- Project on Development of Spatial Data Repository on Paddy Production
- Enhancing Economic Viability of Coconut Farming in Kasaragod District through Soil Health Management Centric Interventions.
- Yield enhancement through bee pollination in coconut based cropping system
- Promoting community nurseries for quality seedling production utilizing ecotypes of coconut
- Promotion modern plant cultivation technologies in agriculture aeroponics, aquaponics, hydroponics, precision farming, etc.
- Rice pest management through ecological engineering
- Development of organic protocol for protected and open precision cultivation of selected vegetable

- Comprehensive development of naturally organic saline prone sea coastal tidal wetlands.
- Value addition for processing and product diversification of horticultural crops & skill development in value addition”
- Seed hub for procuring, processing and marketing of paddy seeds with farmer participation
- Establishment of a centre for excellence of sustainable organic farming and integrated development of organic farming
- Establishment of biofertilizer organic manure quality control laboratory.
- Establishment of model farms.

Animal Husbandry and Dairying

The district holds immense potential for animal husbandry and related dairy development activities which help to increase the production of milk, meat, egg, bone, skin, hide and manure. Animal Husbandry plays a key role in the upliftment of the economic status of the rural people especially the women since it provides employment opportunities to the unemployed and underemployed people. Another feature of the sector is that it offers employment and income throughout the year with low capital investment. This sector also assures immediate return for the investment, which the farmers can earn for their day today life. As the district is promoting organic farming practices, the production of organic manure is important. Organic agriculture is to be started with dairying and rural power requirement is also to be met through Gobar gas, indicate the necessity of development of dairy sector in the District. The district is showing notable improvement in milk production during the last few years. But the gap between the requirement and production of milk in the district is high and the contribution of the district to the state milk production is only 6 % of total milk production. Kasaragod is a land gifted with natural conditions (enough barren land) ideal for the development of dairy sector.

The development in the animal husbandry sector will contribute to women empowerment in a big way. Most animal husbandry activities such as fodder collection, feeding, watering, and health care, management, milking and household-level processing, value addition and marketing are performed by women despite having less access to resources and technical inputs. Hence, it is required that sustained efforts are needed to increase the capacity of women and Kudumbashree units to enable them to undertake the multitude of assignments successfully which calls for focused interventions. The district is endowed with enough barren land for the development of Dairy Sector and there is ample scope for rearing cattle, buffalo, and goat.

The protective and promotional activities of the Animal Husbandry Department are being conducted through various institutions such as, Veterinary Dispensaries, Veterinary Hospitals, Veterinary Poly Clinics, District Veterinary Centres, Intensive Cattle Development Projects, and ICDP Sub Centres etc.

The Present scenario of infrastructure for Animal Husbandry Sector in the district

There are 6 Veterinary Hospitals, 35 Veterinary Dispensaries, 1 District Veterinary Centre, 2 Regional Artificial Insemination Centres, 1 District Diagnostic Veterinary Clinical Laboratory, 1 Animal Disease Control Project Office and 62 ICDP Sub centres. About 11031 households in the district have livestock farming as their main occupation and it provides subsidiary source of income to thousands of other families.

The Dairy Sector of the district started showing growth with the formation of the Dairy co-operatives.

Milk Processing Facilities

The district is having a full-fledged dairy plant at Kanhangad, which is capable of pasteurizing and packing 50,000 litres of milk per day.

Issues faced by animal husbandry sector

- There are no departmental farms in Kasaragod district at present.
- Departmental farms are maintained for selective scientific breeding of livestock and serve as demonstration farms and training centres.
- Approved Hatchery for supplying day old chicks to egger nurseries
- Training centres are needed to equip livestock farmers with scientific management practices.
- Non availability of excellent quality milch animals and heifers.
- High cost of production due to higher feed cost and inadequate fodder base: 80% of the cost of milk production is spent on feeding expenses.
- Shortage of life saving and essential drugs in the veterinary institutions.
- No schemes for the conservation of indigenous Kasaragod Dwarf breed of cattle.
- Modern slaughter house: There is a need for a large modern slaughter house in the district so that good quality meat can be made available to the public.
- Lack of fund: Livestock farmers find it difficult to get fund/bank loans to start new ventures or to expand their existing farms.
- Modernisation of District Veterinary Centre (DVC) – infrastructure facilities at DVC are not adequate.
- Acute shortage of manpower in the department.
- In some rural areas especially in Manjeshwar and Kasaragod blocks, despite the immense potential for dairy development, there is a lack of marketing facility for milk since there are no registered dairy co-operatives.
- The processing capacity of dairying plant is not enough to manage the increasing milk production.
- Various inputs required for dairy farm like cheap feed ingredients, feed supplements, equipment and utensils are not readily available to the dairy farmers.

- The entrepreneurs coming into the dairy sector are facing various problems in getting bank loan, registration from Panchayat and NOC from Pollution Control Board and electricity connection.
- Potential of Farm Tourism in dairy farming is yet to be tapped.
- Production of value-added products which will enhance the profitability and increase in employment opportunities is very limited in the district.
- Even though, various insurance coverage programmes are implemented through various agencies, the large number of cattle is not covered.

Priority areas to be addressed for improving Animal Husbandry and Dairying

- Fodder Cultivation in Barren Land
- Effluent Treatment Plant, Rainwater Harvesting Units For Dairy Co- operative Societies (DCS)
- Strengthening of District Diagnostic Veterinary Clinical Laboratory and Veterinary Dispensaries/ Hospitals
- AH Products Sales Counter and Vaccine Store House for Animal Disease Control Project
- Genotypic characterisation of Kasaragod Dwarf cattle
- Hi-tech Goat Farms
- Modernisation of treatment facilities at District Veterinary Centre, Veterinary Dispensaries/ Hospitals
- Demonstration farm for the new varieties as well as of indigenous varieties of animals and birds in the district
- Value addition in Animal husbandry sector
- Modern meat processing centre cum training centre.
- Scientific approach for the prevention of wildlife intrusion into human settlements and farms in the district

Fisheries & Harbour Engineering

Kasaragod district is having an 80 Kms long sea coast extending from Trikaripur to Bangra-Manjeshwar with a fisher folk of more than 50,000 and around 12,500 active fishermen indulged in fishing in the district. A fisher folk of more than 50,000. The 10 Panchayats and 3 municipalities in the district are coastal. The socio-economic condition of the fisher folk in the state is pitiable, when compared to the general section of the population. Due to the lack of basic facilities for fishing, lack of training and due to the absence of hygienic dwelling places, fisher folk is leading a miserable life. Along with the Marine fishing, the Inland fishing and Janakeeya Matsya Krishi are very active in the district. The water bodies consisting of sea, oceans, rivers, lakes, natural aquatic ponds, streams etc. There are many fish landing centers in this district and transporting facilities. Bangra-Manjeshwar, Shriya, Koipady, Kavugoly, Kasaba, Kizhur, Kottikilam, Pallikara, Ajanur, Hosdurg Kadappuram, Thaikadappuram, Punjavi Kadappuram, Padanna Kadappuram, Kadankod, Valiyaparamba

and Trikaripur Kadapuram are the fishing areas of the district.

Fishing harbours and landing centres

There are 26 fish landing centres in Kasaragod district and Madakkara (Kadangode), Thaikadappuram and Bangra-Manjeswaram have constructed landing facilities. In all other locations, beach landing is the practice. A quick survey indicates that around 85% of the total marine fish production of Kasaragod district is landed on beaches which had no facilities for scientific handling of fish and for supply of potable water.

Mussel farming

Mussel culture is increasingly getting Popular in Padanna and Cheruvattur Panchayats in Hosdurg Taluk of Kasaragod district in Kerala. Kasaragod district has fairly rich natural beds of green mussel from inter- tidal zone up to 15 metre depth areas. Mussel seed were found attached on rocky (granite/ laterite) substrata. There are 1,949 green mussel cultivation units in the backwaters with each unit having 100 ropes. They included 1,192 units under the Blue Revolution (BR) scheme for new farmers, and 757 units under the Janakeeya Matsyakrishi continuing scheme for existing mussel farmers. The total biomass of seed in Kasaragod district was estimated to be 3,115.25 metric tonne.

Fish farming infrastructure

There are two categories of freshwater fish farms/ ponds in this district. The first category of ponds was originally constructed for irrigation and/ or for some purposes other than aquaculture. These ponds have mostly earthen bottom but have sides constructed with laterite stones, bricks or even concrete. These ponds are generally small. At present these ponds are used for freshwater fish culture without affecting their original use. Fish produced are almost exclusively consumed by the farmer and his family members and not sold outside.

Ice plants, cold storages and fish processing plants

In Kasaragod district, 16 ice plants are functioning and the total capacity of ice production per day is 120 tonnes. Of this one plant is functioning under co- operative sector and the remaining ice plants are under private sector. There are no cold storage plants, freezing plants, peeling sheds and fish meal plants in the district.

Fish markets

Fish markets are primary (principal) markets, retail markets or wayside markets, the distinction being in the quantity of fish marketed, the number of fish traders engaged in fish marketing, the number of consumers and the facilities available. There are 3 primary fish markets in Kasaragod district. They are Kanhangad, Kasaragod and Manjeswaram. None of the markets have cold storage/ chilled storage facilities and ice plants attached. 201 retail markets (including way side markets) are functioning in Kasaragod district.

Boat yards

Four boat yards/ boat repairing yards are functioning in Kasaragod district. All these units are under private ownership.

Community centres

In the fisheries villages of Kasaragod district, no community centres meant for fisher communities exist.

Coastal area protection

The sea coasts at Valiyaparamba, Ajanur, Uduma, Pallikkare, Kasaragod, Manjeswar are under constant threat of sea attack. These are densely populated areas where life and wealth of residents are in danger. For the past few years there is no financial aid for anti-sea erosion works from the Central Government. Due to this, new seawall/ renovation works could not be taken up.

Raising Coastal Green Belt

There is a need to raise coastal forests through scientific approach. Studies and observation in this regard assure the following.

- To reflect and resist tsunami energy, reduce inundation depth, inundation area, tsunami current
- To stop drift wood and other materials moved by tsunami, and to prevent the secondary damage by drift wood impact.
- To prevent all being washed out to sea.
- To reduce erosion of beaches and dunes which also act as barrier against tidal effect, tsunami etc
- To prevent salinity intrusion to land areas and act as conservation structure for of pure water.
- To act as carbon credit initiative by reducing the consequences air pollution.
- A safe shelter for birds, flies, small sea creatures etc.
- Help in getting timber and firewood, coastal tourism by planting mangroves, casuarinas, brevia, etc.

Through hydrological approach, community approach and convergence with other schemes, local self-government, the project can be undertaken successfully

Disaster management facilities (Risk mitigation and sea safety)

In the fisheries villages no infrastructural facilities other than rescue boats hired by the Department of Fisheries during monsoon months exist for the purpose of disaster management. In adjacent districts the Department of Fisheries maintains hired boats with life saving appliances and trained rescue guards throughout the year for rescuing the fishers who meet with accidents at sea. However, in Kasaragod district such facilities are made available only during the monsoon months. During the rest of the year the services of the facilities available in Kannur district are made use of in Kasaragod district.

Priority areas to address for improving Fisheries & Harbour Engineering

- Shrimp processing Centres
- Training centre for fish farming

- Aqua culture clinic and market
- Finishing school for coastal area/fisher folk
- Providing fish farming infrastructural facilities
- Value added products from fisheries sector
- Mussel farming
- Low level boat jetty at fishing harbours
- Renovation and reconstruction of wharfs
- Breakwater extension works
- Mini fishing harbours
- River training works
- Development of fishing harbour – workshop building, canteen building, rest shed, shop building, gear shed, administrative block and dredging.
- Boat jetty and control room for Coastal Police at Fishing Harbour
- Tetrapod protection work
- Raising Coastal Green Belt
- Foot bridges
- Ice plant and cold storage
- Fishery stations
- Speed boat for sea rescue operations
- Formation of sea rescue squads
- Distribution of life saving appliances to fisherfolk

CHAPTER 10 FINANCIAL SECURITY

Another important aspect of the development of Kasaragod district is the financial security. Financial security means the condition of economically stable and having enough money saved to cover emergencies and future financial goals. Financial security for the people of the district can be achieved through a comprehensive planning and execution of various measures and priority projects to protect vulnerable populations and set the stage for a lasting recovery.

Impact of Covid-19 on the district

The lockdown implemented in the state has resulted in an unprecedented loss of employment of NRIs, NRKs and in all sectors of the economy. Kerala's labour market is characterised by excess supply of educated labour force on the one hand and shortage of manual labour force on the other. The district has been facing acute shortage of manual labour due to the return of Non-Keralite Migrant Workers to their Native States. Due to the prolonged lockdown, quarantine, physical distancing and other isolation measures to suppress transmission of the COVID-19, all economic activities came to a standstill. Non-essential services and production were directly affected by the lockdowns, which led, among other things, to a reduction in the number of hours worked and to job losses. The lockdown has resulted in huge loss of employment of all categories – self-employed, regular, and casual labours. Kasaragod has been receiving large foreign remittances every year from the Keralite emigrants. The return of emigrants from Gulf and other Countries to Kasaragod may have its repercussions in the future unless a concerted planning and action has been initiated.

Industries, Employment and Skill Development

Kasaragod has vast potential for industrial development. Unlike any districts in the state, Kasaragod ample fallow land, which can be easily utilized for the development of manufacturing industries. There is ample scope for agro-based small scale industries for value addition. It is necessary to establish infrastructure and create an enabling environment for private investment. Kasaragod district has immense potential for the establishment of large and medium scale industries.

Prospects for Industrial development

- There are ample potentials for the development of IT enabled industries and software development units in the district.
- Micro enterprises such as light engineering, agro-based and textile-based industries are having ample scope.
- Kasaragod produces the best cashews in the state, but not a single factory is there in Kasaragod.
- Food and agro-processing sectors have good openings for development
- The village level value added production units are the promising wealth creators

and employment generators in the district.

- Availability of large quantities of raw materials required for industries
- A considerable quantity of jackfruits, mangoes and cashew apples are currently wasted in the district.
- More than 56,000 hectares of coconut plantations are there in Kasaragod district. Coconut offers greater opportunities for varied value-added products.
- Kasaragod produces huge sums of rubber, lacks any kind of rubber-based industries.
- Availability of labour resources, water resources and natural resources of sunshine, bamboo, forest resources etc.

Shortcomings in Industrial development /employment and skill development

- Skill Development for Industry and Entrepreneurship
- Poor infrastructure facilities
- Self-employment initiative and entrepreneurship development
- Vocational Training Facilities in the District
- Higher level coaching / training / guidance for employment
- Lack of appropriate technology, processing standards, suitable packaging
- Non availability of skilled labour,

Priority areas to address for improving industries, employment, and skill development

- Scope for laterite-based Industries - value addition units
- Small scale/mini industries and to create self-employment opportunities for ensuring social and economic development of NRIs & NRKs
- Rural IT parks and IT based industrial units
- Facilities for Software Technology and Business Parks for Engineers and engineering students
- Technical finishing School -Multi Skill training Institutes in collaboration with Engineering colleges, Technical Institutes, Industries, Industrial estates & IT parks.
- CFCs (common facility centres in Block wise) to provide facilities for testing, raw material depot, complementing production processes, and training.
- Agro-based industrial parks
- Village Industrial Hubs-establishing modern food processing and value addition units in grama panchayats
- Product-based industrial estates.
- Activated carbon (from coconut shell) manufacturing unit.

- Bitumen production plant
- Livestock Feed Manufacturing Plant.
- Production and Formulation of Fish and Shrimp (Prawn) Feed
- Sand lime Bricks/soil bricks Manufacturing unit
- E-waste recycling plant
- Salt processing plant
- Oxygen and Nitrogen Gas Plant
- Solar Panel manufacturing unit.
- Industrial exhibition cum training centre
- Craft Village and Training institute
- Industrial waste treatment plants
- Plastic recycling plants
- Incubation centres for value added products from fruits and tubers
- **Scope for Handicraft industry** -traditional industries for beautiful handicrafts with ivory, bamboo, palm leaves, seashells, wood, coconut shells, clay, cloth, coir, metals, stone,
- **Scope for Bamboo Industry:** Bamboo is a highly productive renewable and eco-friendly resource and has several applications. It is widely used in environment protection, as a nutrient food, high-value construction material with varied applications.
- **Handloom Industry:** traditional handloom sector, power loom and the spinning sector. The industry is dominated by the co-operative sector,
- **Cashew:** Cashew is an important commercial horticulture crop with considerable potential

Availability of power

The KSEB has only distribution and transmission wing in Kasaragod. There is no power Generation wing. KPCL, a private thermal power plant located at Mylatty is the only power generating unit in the district. Therefore, the district is facing acute shortage of quality power. This is one of the reasons why industries are not coming up in Kasaragod. To achieve a comprehensive development of the district-improvement in the living standard of the people, industrialization of the district, there is a need to ensure supply of uninterrupted good quality power. The power sector is one of the major significant constituents of infrastructure.

Priority areas to address for power generation including non conventional energy

- 110kV GIS (Gas Insulated Substation)
- 110kV AIS
- Up gradation of 110 kV Substations

- Modernization work using UG Cable, ABC and RMU
- New 110Kv Substations
- HT Reconductoring using ABC
- LT Reconductoring using ABC
- 33kV substations
- Construction of 11kV lines
- Transformer insertion 100 KVA
- Laying UG Cables
- 110kV Substation and 110kV DC lines.
- Model Solar Villages
- Solar storage systems (on grid /off grid /storage less plants)
- Mini/micro hydroelectric projects
- Micro hydropower projects in water structures using turbines

CHAPTER 11 TOURISM

The district is known for its remarkable forts, historic monuments, temples, mosques, rivers, backwaters, and rich sandy beaches. While tourist spots in south Kerala have been commercialised, and north Kerala presents virgin tourist destinations. Kasaragod lying in the northern most part of Kerala has immense tourism potential. Bekal Fort has already attained international recognition and has been attracting numerous tourists every year. However, many other tourist destinations in the district are lagging behind because of the lack of promotional activities and pitiable infrastructure.

Handicaps of tourism sector

The following are some of the important issues that need attention:

- Development of National Highways, State Highways and other important roads leading to important tourist spots
- Way side amenities with Hygienic toilets on a pay and use basis at various tourist centers, towns, and alongside the national and state highways
- Shortage of power is a major issue in the district.
- Water sports activities such as speed boating, surfing etc., can be introduced
- Development of infrastructural facilities of the tourist centres
- Lack of wide range of publicity and marketing of the tourist attractions

Priority areas for tourism

- Infrastructure development for all tourist destinations in the district
- Tourism development-based on the specialty or attractions of each spot
- Beach development
- Tourism circuits by combining all tourist spots of the district.
- Riverside parks
- Beach and farm tourism
- Night food streets
- Wayside amenities
- Fort circuits
- Crew facilitation centres
- Health tourism
- Eco tourism
- Pilgrimage tourism

- Hill tourism
- Adventure tourism
- Sea view parks

CHAPTER 12

IMPROVEMENT OF ROADS AND OTHER CONVEYANCE FACILITIES

Roads play a significant role in economic development and in stimulating development of other sectors. The road infrastructure is to be developed further to cater to the needs of economic and social development. Roads can play an important role in the district because of dispersed nature of population and potential for industrial development and tourism promotion. Lack of connectivity seriously constrains agricultural production, accessing health and education facilities and for marketing also. A large number of the people in the district are NRIs and NRKs and they prefer Kannur and Mangalore Air Port at present for their travel needs. The proposed six line NH 66 high quality roads will be a boon to travel to Kannur and Mangalore Air ports. Kasaragod is a land of rivers and rivulets and therefore apart from building new bridges, there should be strategy for repair, renovation and reconstruction of obsolete bridges.

Priority areas to be addressed for improvement of roads and other conveyance facilities in the district

- Development of bypass at different towns to avoid traffic congestions
- Improvements of various traffic junctions to manage the traffic related issues
- Providing advanced traffic management system at traffic junctions.
- Providing modern parking facilities
- Developing Green Roads and beautification of roads
- Upgradation of roads including surface renewal and widening.
- Modern flyovers and Bus shelters
- Developing abandoned roads to public utility areas
- Town beautification and junction improvements
- Developing model roads- national and international standards – double line, road marks, pedestrians' path, cycle path, signals etc.
- Developing conveyance facility through PPP mode & Annuity mode
- Developing Farm Roads , Industrial estate roads, Tourist destination roads
- Establishing Mobility hubs
- Up gradation of village and district roads to national standards

Bridges

- Construction of new bridges and renovation of existing bridges
- Construction of railway foot over bridges in the district.
- Construction of Railway over bridges

CHAPTER 13

DEVELOPMENT OF INFRASTRUCTURE FOR EFFECTIVE PUBLIC SERVICE DELIVERY

Public Service refers to service provided by the government to people. Effective public service delivery is an important instrument for boasting up the good governance. Health care, education, social services for the poor and marginalized. roads, railways, airports, telecommunications, electricity, water, environmental protection, waste management, sanitation, law enforcement, fire service, public transportation, and postal services are some essential services that should be available incessantly. Government should concentrate on providing services in unreached areas and the unreached population. To provide these services effectively, efficiently and on sustainable basis, the infrastructure facilities in the district with regard to the above are to be developed.

Priority areas for improvement of infrastructure for effective delivery of public services

- Construction of Mini Civil stations
- Extension block for Civil station
- Multipurpose building complexes in Grama Panchayats
- Vidhyabhyasa Bhavan
- Excise complex
- Creation of rural mobility hubs
- Model Green buildings -Eco-friendly Materials & Structures. Energy Efficiency and Renewable Energy- Water Efficiency- Environment friendly.
- Construction of natural calamity resistant buildings
- Building construction using local technology/rural Technology/latest technology – application of cost-effective methods
- Barrier free Kasaragod-disabled and geriatric friendly buildings
- Modern wayside amenity centres.
- Grama Seva Kendram
- New Fire stations
- New district jail
- Government Press
- Sub treasury offices.
- Dormitories/rest rooms/refreshment rooms near railway station for rail passengers
- Revenue Tower
- Public information kiosks in civil stations

CHAPTER 14

SOCIAL SECURITY

Social security is the protection that the government or society provides to individuals and households to ensure access to health care and to guarantee income security, particularly in cases of old age, unemployment, sickness, invalidity, work injury, maternity, or loss of a breadwinner. The term is used to include a broad system of support for all those who, for whatever reasons, are unable to maintain themselves. Social Security is an essential factor for the development of people especially in the present socio-economic scenario due to manifold issues of the individual, family and community.

Social Justice

The Social Justice Department is the nodal agency for implementing the Social Welfare schemes of both central and state governments in the district. The department is working for the upliftment of the marginalized groups and to provide justice to the victimised.

The target groups are:

- Senior Citizens
- Differently abled
- Transgenders
- Probation Wing - dealing with the aftercare programme to rehabilitate ex-convicts, probationers, and their family welfare.

Priority areas for the improvement of social justice

- Model Day Care Centre for senior citizens
- Second Innings Home
- Psycho-social Rehabilitation centres
- Shelter home for Beggars and destitute
- Facilities for vocational training and occupational therapy for prison inmates and psychiatric patients

Women Empowerment and gender Equity

Women's well-being depends on their empowerment -social, cultural, political and economical. The Government of Kerala has adopted various strategies to enhance the status of women and empower them to address the negative social and economic impacts. Empowered women have independence, equal opportunities, and the ability to make strategic choices in all areas of their lives. Gender equality prevents violence against women and girls. Societies that value women and men as equal are safer and healthier. Gender equality is a human right.

Priority areas to be addressed for the improvement of Women empowerment and gender equity

- Encourage girls for empowerment and equality at schools and college level
- Skill development courses for employability of women
- Save baby girls child programme
- Easy access to get credit and government support
- Encourage women entrepreneurship
- Women's complex
- Facilities for Vocational training and Finishing School for women
- Establishment of Smart Anganawadi Cum Social Resource Centre
- Upgradation of Anganawadis
- Facilities for Solid Waste Management in AWCs
- Baby Friendly Toilets
- Disabled friendly AWC building
- Children's home for girls.
- Samagra centre for Women & child
- Women & Children Development Complex
- Ladies Park in Collectorate and other mini civil stations
- Establishment of Creche
- Adolescent Clubs
- Navajeevan - (Adolescent Wellness Centre with counselling)
- Special Nutritious Fortified Food Project for persons with Disabilities
- Digital mammogram unit
- Training centre for women
- Training for self-defence for girl children and women
- Kudumbashree programmes.

CHAPTER 15 EDUCATION

Kasaragod is one of the backward districts in respect of infrastructure for school education. Educational backwardness is one of the main reasons for the general backwardness of the district and general backwardness reinforces educational backwardness. There has been tremendous improvement in the case of education infrastructure in the district. It is to be noted that many of the highly educated people in the district is unemployed and under employed. The district is lacking in the case of facilities for skill education and competency for achieving a good rank in the competitive examinations of KPSC, UPSC and others. The curriculum was never adapted to the needs of Kerala economy. Kerala's requirements for unskilled and skilled labour today are increasingly met by the migrant labour from neighbouring states.

Kerala has made major achievements in school enrolment at the primary level and in preventing dropouts, thanks to the pioneering government funded programmes like Noon Meal Scheme. In the field of higher education, the district lags not only in qualitative terms, but also in quantitative terms. The technical education in the district has a very narrow base. Many of the courses with good potential for employment are not available here. Another major missing link is the absence of any all-India level institutions in the district other than the Central University. The courses are not re-oriented taking into accounts either the developments in the disciplines or the changes in the job markets.

Priority areas for the improvement of education

- Necessity of Academic complex
- Facilities for Different Labs in Lower Primary Section onwards
- Infrastructure facility for continuing education centres
- Basic facility Hi-Tech Classrooms
- Gothra Naipunyam
- Vidyalaya Naipunyam:
- Improving Academic infrastructure of Schools
- Modern Laboratories in High Schools
- Modern digital library in high schools
- Talent labs
- Pedagogic park and Biodiversity Parks
- Resource centres for Children With Special Needs (CWSN)
- Facilities for language studies and research
- The scheme for Earning while Learning
- Girls Restrooms

- Maths Labs for higher secondary schools
- Common school gathering facilities
- Infrastructure for dieting activities
- Water conservation structures at educational institutions
- Facilities for modernisation for Government Primary, Secondary and Higher secondary schools
- Infrastructure development for Government ITIs /establishing new ITIs
- Infrastructure development / establishment of new polytechnic Colleges
- Community Development through Polytechnics (CDTP)
- Finishing schools
- Modernisation of vocational & technical education
- Infrastructure facilities for Colleges
- Playgrounds
- Infrastructure for Buds schools
- Employment oriented coaching centres
- Advanced training for competitive exams
- Facilities for Information Technology and Innovation
- Career counselling, motivation and Skill education
- Introducing facilities / motivation for health and hygiene
- Introducing career-oriented courses and training

CHAPTER 16

HEALTH

Health is an important determinant of well being. Therefore, maintaining health is important for an individual and a household at the micro level and society at the macro level. In many respects, Kerala's health status is almost on par with that of developed economies. The state has succeeded in increasing life expectancy as well as reducing infant and maternal mortalities. The implementation of land reforms improved the standard of living of the rural poor. The effective implementation of the public distribution of food played an important role in improving nutritional status. Kerala's publicly funded healthcare system has helped in providing treatment facilities to people of all strata of society. The high literacy rate, especially among the females, also played a leading role in improving the health scenario. The Kerala Model of Health is described as "good health based on social justice and equity"

Strengths

- Health awareness and stakeholder participation in public health activities often catalyses disease prevention, early diagnosis and treatment.
- There is a prominent level of health seeking behaviour amongst the general public
- All Grama Panchayats are provided with at least a Primary Health Centre (PHC) and a few with more than one PHC.
- The upcoming Kasaragod Medical College, TATA Trust Government Hospital and the improved facilities of District hospital, General hospital, Taluk hospitals etc. will provide advanced health care to the people soon. But the pandemic -Covid 19 and the resultant issues created tension related to advanced and specialized health care in the district.

Priority areas for the improvement of Health

- Integrated health development of the district
- Deaddiction Centre
- Cancer Institute & Cancer care hospital.
- Infrastructure facilities for District TB Centre
- New Building for DMO Office (Health)
- Establishment of Gymnasiums as a means of preventive health care
- Day Care Centre for psychiatric patients
- JPHN School and Hostel
- Accommodation facility for Doctors and other categories of Health staff
- Conversion of PHCs to FHC
- Accident and trauma care facility

- Additional facility to Government Medical college.
- Air Ambulance helipads
- Telemedicine network and e-Health
- Geriatric Hospital
- District cancer screening & detection centres & registry.
- Management of advanced chronic Kidney & liver disease in a hospice setting.
- Employees Wellness Centre in Civil stations and Mini civil stations
- Establishment of Advanced Heart Care Centre in
- Dist. Medical Lab
- Infrastructural facilities for Government Primary & Secondary health care institutions.
- Psychiatric Hospital and Research Centre with special block for women patients
- Construction of autism park, and centre for early detection
- Conversion of TATA COVID hospital into fully functional hospital
- Family welfare sub centres
- Infrastructural facilities for Dist. Homeo Hospital and other Homeo hospitals
- Infrastructural facilities for Homeo Dispensaries
- Homeo Research Centre
- Homeo medicine manufacturing unit.
- Palliative centres
- Homeo health hub
- Infertility Homeo hospital
- Infrastructural facilities for Ayurveda hospitals and dispensaries.
- Infrastructure facilities for Unani Hospital
- Herbal Garden for Conservation of Medicinal Plants
- Nattarivu Development and collection
- Health Tourism circuit and promotion of sports in Ayurveda sector
- Ayush and yoga research centre and multi-specialty Ayush hospital
- Commercial cultivation of medicinal plants and herbs and establishment of manufacturing units –Herbal Village

CHAPTER 17

SPORTS

Kasaragod district has contributed several eminent sports personalities to Kerala. However, there is deficiency of sports infrastructure for properly grooming athletes and sports persons. The district has to improve a lot to attain the past glory and to mark a prominent position in the sports and games competition.

Priority areas for sports

- Facilities for Water sports, Indoor Volleyball Stadium and Adventure Tourism infrastructure at islands and backwaters
- Integrated Sports development of schools
- Development of aqua sports
- Swimming pool for providing swimming training for school children.
- Sports hostels for specific sports events in various parts of the district
- Rapid Enhancement of Sports and Games activities in Rural Area (RESGARA)
- Establishment of Sports Schools
- Multipurpose indoor stadium
- New 400 M standard tracks
- Women football academy
- Infrastructure for “North Malabar Jaloltsavam”
- Minimum fitness programme among school students
- Development of physical proficiency through training of Martial arts- Yoga, aerobic exercises, etc.

CHAPTER 18

SANITATION, WASTE MANAGEMENT & ECO- RESTORATION

Sanitation consists of a host of practices for the safe disposal of human excreta, solid waste management, liquid waste management, safe handling of drinking water, home sanitation and food hygiene, personal hygiene, and community environmental sanitation. Total Sanitation Campaign (TSC), Clean Kerala initiative, and ‘Malinya Mukta Keralam’ campaign etc. helped to improve the sanitary latrine coverage, waste management and overall cleanliness. However, other sanitation conditions such as solid and liquid waste disposal, drainage, and community environmental sanitation in the district need improvement. There is a need to strengthen the managerial capacity and responsibility of the community and local bodies in planning, implementation and maintenance of solid waste management facilities and services

It is possible to introduce “Zero Waste” concept with the help of well-designed awareness generation programmes and technical support. The basic strategy will be the 4-R reduce, reuse, recycle and recover. This strategy would lead to the barest minimum of waste generation. The district faces severe constraints in sanitation and waste management that need urgent attention while prioritizing the overall development needs. In the event of the Covid 19 and other communicable diseases, increased pollution of the water bodies, soil and air pollution, importance of sanitation, waste management and eco restoration is indispensable.

Priority areas for the improvement of Sanitation, Waste management & Eco-restoration

- Faecal Sludge Treatment Plant (FSTP)
- Sewage Treatment Plant (STP)
- Plastic Waste Management Unit
- Gobar – Dhan – Biogas projects
- Bio- degradable Waste Management
- Pit Composting
- Community level composting
- Aerobic Compost Units.
- Grey Water Management
- Common biomedical waste treatment plant
- Sewage waste water treatment plant
- Construction of multispecies modern slaughterhouse
- Construction of modern public crematoriums and conversion of existing crematorium to modern crematoriums
- Zero waste Kasaragod –(Zewaka)

CHAPTER 19 DEVELOPMENT OF SCs AND STs

The vision of the government, in tune with the spirit of the constitution, for the welfare of members of the scheduled castes and tribes include:

- Modernization of lifestyle by conserving the culture
- Preservation of traditional knowledge
- Total literacy
- Land for landless, Home for homeless
- Cluster Development for livelihood
- Total health care
- Residential education for reducing the rate of dropouts
- Vocational training for more employment
- Sustainable development for regular income

Priority areas for the development of SCs and STs

- Information Technology Centre (Information Facility Centre) at SC colonies
- Integrated SCs & ST Colony development
- Basic infrastructure development – Model neighbourhood living system
- Construction/Renovation of pre-metric hostels
- Cultural centres
- Finishing school
- Career counselling centres for educated SC/ST Youth.
- Establishment of community wellness centre for counselling and guidance.
- Construction/Renovation of post-matric hostels

CHAPTER 20 ARTS, CULTURE

Kasaragod has a rich and unique culture and heritage. The district is a confluence of many languages and cultures. Kasaragod is known for a variety of art forms depicting its rich cultural heritage. Theyyam, Yakshgana, Poorakkali, Marathukali, Kolkali, Duff Muttu, Oppana, Mappila pattu, Margamkali, Kelipatram, Alamikali etc are the main art forms of Kasaragod.

Priority areas for the development of the art and culture scenario

- Literary History Museum
- History archives to depict the ancient history and the cultural heritage of the district.
- Conservation of historical monuments

CHAPTER 21

MEASURES FOR IMPROVED DELIVERY OF SERVICES UNDER KDP

The following measures can help improve the service delivery under KDP.

- Prioritisation of projects based on need assessment
- Conducting cost benefit analysis for all projects to form the basis of DPRs
- While prioritizing projects under Kasaragod Package, special emphasis should be given to vulnerable groups of the target community
- The projects under Kasaragod package should emphasise and complement Government policy on projects like Nava Kerala Mission, Subhiksha Keralam, Jal Jeevan Mission, etc.
- Effective monitoring system for the time bound completion of the project
- Systematic follow up for the project from the DPR preparation to final asset transfer to user agency
- Conduct regular review meetings, site visits, multi-channel communication, planning for project risks, etc.

PART-III
CHAPTER 22
MEASURES TO INCLUDE THE PROGRAMMES OF LSGIs IN THE
KASARAGOD PACKAGE

In Kerala, Local Self-Government Institutions have been meaningfully empowered through massive transfer of resources as well as administrative powers. Local self-government Institutions have emerged as effective agencies for the implementation of developmental programmes. Developmental programmes are identified and implemented through Grama Sabhas. The decentralisation experiment of Kerala has given a prominent position for the local government institutions with regard to the development of local economy. Besides LSGIs are also the providers of a good number of services to the public.

There are lot of programmes and projects that can be combined and incorporated with Kasaragod Package.

The District Plan

The District plan has been prepared based on the requirements of people and the development scenario of local bodies. The projects already mentioned in the Commission Report and the new proposals already submitted to Government for incorporating the same to Kasaragod Package can be discussed in the DPC and suitable projects can be implemented by means of convergence.

Viability Gap Funding by KDP

In some cases, if there is any paucity of funds while implementing the projects by local bodies, KDP can fill the gap by viability gap funding. In this way the delay of the projects can be avoided.

Block-level monitoring System

There are 6 Block Panchayats in Kasaragod district. The block-level monitoring system can be followed in Kasaragod package based on the following

- a. KDP LSGI Convergence
- b. Engaging Block Panchayat President in the Monitoring team to watch the progress of Implementation of Kasaragod Package in their respective blocks.

New proposals involving LSGIs

Separate meetings and discussions will be conducted with LSGIs for formulating suitable proposals for the infrastructural development as well as socio economic development of their locality. Emphasis should be given for generating more employment and income for the people, upgrade ecosystems, biodiversity and resources through sustainable production systems and consumption, people-friendly systems of health and education, durable and self-sustainable projects

CHAPTER 23

FRAMEWORK FOR REGULAR ASSESSMENT AND MONITORING

Regular assessment of progress in Kasaragod Package can be implemented by the following ways.

- Regular assessment of progress by monthly meeting of DLC, DLTC, special evaluation meetings.
- Regular monthly progress report by the implementing agency
- Software based monitoring and assessment of progress
- Progress updates in website with photos
- Social monitoring- All details of the projects are given in the website which is accessible to general public
- Erecting of social audit boards in the site

Monitoring of schemes under Kasaragod Package.

Though the implementation of Kasaragod Package was started during the period 2013-14, the implementation and handing over of many projects were delayed due to technical as well as operational reasons. However, now the implementation of the projects has got momentum through effective monitoring system.

District Level Committee (DLC)

As per the G.O.(Rt) No.337/2019/P&EA dated 25.07.2019, a District Level Committee was constituted for granting Administrative sanction to projects below 5 crore under the Kasaragod Development Package.

District Level Technical Committee (DLTC)

The District Level Technical Committee was constituted in the district as per G.O.(Rt)No. 59/2018/P&EA dated 29.01.2018 for according technical sanction to the projects under KDP, for approving tender excess for works with the financial powers of Chief Engineer, to approve revised estimate within the A.S. amount, to select an external agency for consultation and preparation of design and plan for the projects under KDP if needed, etc.

The meeting of DLC will be conducted whenever there are projects to be sanctioned based on the approval of SPB and DLTC will be conducted for according technical sanction to the projects under KDP. The meetings will review of the progress of each project and take necessary action based on the discussion of issues if any. The implementing officer occasionally visits each project for the verification of progress and reports the same. In addition to that the site will be inspected by KDP office and evaluate the progress.

Suggestions for the improvement of monitoring system

- Establish a clear Project Schedule by the implementing department and circulate

among internal stakeholders

- Monitor the project throughout – from DPR preparation to final handing over
- Assign monitoring responsibility to concerned local bodies / monitoring team
- Strong and timely decision making whenever there are issues
- Use performance management system - Its elements include capacity building, performance rating and a system of rewarding superior performance
- Monthly progress reports.

Until and unless some innovative and clearly set out programmes and changes occur in the district of Kasaragod, the rural sector might continue to remain backward and cannot withstand on par with other districts of Kerala. There is a greater need today to make rural areas more vibrant through diversification into dairying, poultry, fisheries, vegetables, and fruits and linking up the rural production centres with the urban and foreign (export) markets to realise higher returns on the investments for the products. Moreover, the boosting up elements like credit and marketing facilities, farmer friendly agricultural policies and a constant appraisal and dialogue between farmers' groups and state agricultural departments are essential to realise the full potential of the agricultural and related sectors. The industries, tourism and service sectors are utmost important in providing employment and income generation. Infrastructural facilities for education, health and social justice etc. deserve special attention in the wake of present-day necessities. Today it is difficult to look at the environment and rural development as two distinct subjects. There is need to invent or procure alternate sets of eco-friendly technologies that lead to sustainable development.

Kasaragod Development Package encompasses all sectors given above with new and innovative proposals to solve the issues of development of the rural areas of the district. All the proposals are well thought out and will have positive impact in the developmental scenario of water security, food security, financial security, and social security. Systematic planning and implementation of the projects with the active involvement of people's representatives, LSGIs, stakeholders, and general public, the development aspirations of the people of Kasaragod can be attained.

APPENDIX-1

PROCEEDINGS OF THE MEMBER SECRETARY

STATE PLANNING BOARD

(Present: Sri. Teeka Ram Meena IAS)

Sub: - Formulation of Fourteenth Five Year Plan (2022-27) – Constitution of Working Group on Regional Packages– Revised Proceedings - reg.

Read: 1. Note No. 297/2021/PCD/SPB dated: 27/08/2021
2. Guidelines on Working Groups
3. This Office order of even number dated 08.09.2021

ORDER No. SPB/342/2021-Agri(6) Dated:14.09.2021

As part of the formulation of Fourteenth Five Year Plan, it has been decided to constitute various Working Groups under the priority sectors. Accordingly, the Working Group on **Regional Packages** is constituted. For the smooth functioning of the Sectoral Working Group (SWG), it is decided to split the Working Groups into Expert Sub Groups (ESG). Hence the Working Group is categorized into three Expert Sub Groups as indicated in the proceedings. The names of the members of the SWG are indicated under each ESG. The Working Group shall also take into consideration the guidelines read 2nd above in fulfilling the tasks outlined in the ToR for the Working Group

1. THE WAYANAD PACKAGE

Chairperson

- Ms A Geetha IAS, District Collector, Wayanad
- Dr Jose George, Professor (Retd), Mumbai University

Members

- Mr Samshad Marakkar, President, District Panchayat, Wayanad
- Ms. Priyanka G, IAS, District Development Commissioner & Special Officer, Wayanad Package
- Mr A. N. Prabhakaran, Member, District Planning Committee, Wayanad
- Mr Sreejith Sivaraman, Scientist & Activist
- Mr A. M. Prasad, Adivasi Kshema Samithi
- Dr Ambi Chirayil, Kasalakkad PO, Wayanad
- Dr K. Ajith Kumar, RARS, Ambalavayal, KAU
- Mr V. S. Biju, DPO, Wayanad

Terms of reference

- To assess the design and performance of the Wayanad Package of Government of Kerala.
- To identify the major issues in Wayanad's rural economy and suggest measures to incorporate them better in the Wayanad Package.
- To suggest measures to better target the delivery of services under the Wayanad Package.
- To suggest measures to include the programmes of LSGIs in the Wayanad Package.
- To suggest a framework for the regular assessment of progress under Wayanad Package.
- To suggest measures to improve the system of monitoring of schemes under Wayanad Package.

2. KASARGODE PACKAGE

Co-Chairpersons

- Dr D. Sajith Babu IAS, Director, Civil Supplies Department
- Ms Bhandari Swagat Ranveerchand IAS, District Collector, Kasargod

Members

- Mr U. Kunhiraman, ex-MLA, Uduma Constituency
- Ms Baby Balakrishnan, President; District Panchayat
- Mr Bankalam Kunjikirishnan, Kasargod
- Mr C. Ramachandran, Member, District Planning Committee
- Ms A. S. Maya, DPO, Kasargod
- Mr V V Remeshan, Ex. Chairman, Kanhangad Municipality
- Mr E P Rajamohan, Govt. Additional Secretary and Special Officer, Kasargod Development Package

Terms of reference

- To assess the design and performance of the present Kasargode Package.
- To identify the major issues in Kasargod's rural economy and suggest measures to incorporate them better in the Kasargod Package.
- To suggest measures to better target the delivery of services under the Kasargod Package.
- To suggest measures to include the programmes of LSGIs in the Kasargod Package.
- To suggest a framework for the regular assessment of progress under Kasargod Package.
- To suggest measures to improve the system of monitoring of schemes under Kasargod Package.

3. IDUKKI PACKAGE

Co-Chairpersons

- Mr Jeevan Babu IAS , Director General of Education, Kerala
- Ms Sheeba George IAS ,District Collector, Idukki

Member

- Ms Gigi K. Philip, President; District Panchayat
- Mr Arjun Pandyan IAS, District Development Commissioner & Special Officer, Idukki Package
- Mr T. C. Kurian, Thanuvelil , Kadamakkuzhi PO, Vallakkadavu, Idukki
- Mr Joyce George, ex-MP, Idukki
- Ms K. Jaya, Member, District Planning Committee
- Mr C. Rajendran, Member, District Panchayat
- Dr Muthuswamy Murugan, Head, Cardamom Research Station, Pampadumpara
- Dr Sabu Varghese, DPO, Idukki

Terms of reference

- To assess the design and performance of the Idukki Package of Government of Kerala.
- To identify the major issues in Idukki's rural economy and suggest measures to incorporate them better in the Idukki Package.
- To suggest measures to better target the delivery of services under the Idukki Package.
- To suggest measures to include the programmes of LSGIs in the Idukki Package.
- To suggest a framework for the regular assessment of progress under Idukki Package.
- To suggest measures to improve the system of monitoring of schemes under Idukki Package.

Convener

Sri. S S Nagesh, Chief, Agriculture Division, State Planning Board

Terms of Reference (General)

1. The non-official members (and invitees) of the Working Group will be entitled to travelling allowances as per existing government norms. The Class I Officers of GoI will be entitled to travelling allowances as per rules if reimbursement is not allowed from Departments.

2. The expenditure towards TA, DA and Honorarium will be met from the following Head of Account of the State Planning Board "3451-00-101-93"- Preparation of Plans and Conduct of Surveys and Studies.

The order read as reference 3 is modified to this extent.

(Sd/-)
Member Secretary

Forwarded By Order


Chief,
Agriculture Division

To

The Members concerned

Copy to

PS to Vice Chairperson
PA to Member Secretary
CA to Member (Dr.Ramakumar.R)
Economic Advisor to VC
Chief, PCD,SPB
Sr. A.O, SPB
The Accountant General, Kerala
Finance Officer, SPB
Publication Officer, SPB
Sub Treasury, Vellayambalam
Accounts Section
File/Stock File