



**GOVERNMENT OF KERALA
KERALA STATE PLANNING BOARD**

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

**WORKING GROUP ON
DEVELOPMENT INTERVENTIONS BY LSGIs**

REPORT

**Decentralised Planning 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 include scholars, administrators, social and political activists and other experts. Members of the Working Groups contributed their specialized 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. Each Report has been finalised after several rounds of discussions and consultations held between September and December 2021.

This document is the Report of the Working Group on “Development Interventions in LSGIs”. The Co-Chairpersons of Working Group were Dr.P.K.Raveendran and Smt.Sarada Muraleedharan IAS. Dr.Jiju.P.Alex, Member of the State Planning Board co-ordinated the activities of the Working Group. Smt.Josephine.J, Decentralised Planning Division was the Convener of the Working Group and Dr.Sreekumar.T.L, Assistant Director, Decentralised Planning Division was Co-Convener. The terms of reference of the Working Group and its members are in Appendix I of the Report.

Member Secretary

PREFACE

The State Planning Board constituted a Working Group on Development Interventions in LSGIs in connection with the formulation of XIV Five Year Plan (2022-27). Smt.Sarada Muraleedharan IAS and Dr.P.K.Raveendran were the Co-Chairpersons of the Working Group.

The Working Group held several meetings in State Planning Board for drawing up broad perspectives for decentralisation and agricultural growth. Besides, sub themes were formed for reviewing the development initiatives and preparing notes on sectoral issues under decentralisation and agricultural growth. Details are given below:

1. To suggest measures by which Local Governments, independently and in coordination with departments, will promote economic growth in Kerala. This includes the enhancement of livelihoods in productive sectors and in income-bearing services.
2. To propose methods by which Local Governments can support industrialisation efforts of the present Government of Kerala.
3. To suggest measures to harvest the power of decentralisation in agricultural growth.
4. To review and, if needed, suggest measures to assist the programme to eliminate extreme poverty in the State.
5. To review special problems, if any, in the field of decentralised planning and suggest measures to address the problems.

The Working Group examined the suggestions and views expressed by the members while the final report is drawn up.

We hope that this report would enable to formulate comprehensively the XIV Five Year Plan proposals and implement the schemes more effectively by the local governments.

Smt. Sarada Muraleedharan IAS
(Co-Chairperson)

Dr. P. K. Raveendran
(Co-Chairperson)

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EXECUTIVE SUMMARY

The State Planning Board constituted a Working Group on Service Delivery by LGs in connection with the formulation of XIV Five Year Plan (2022-27). Smt.Sarada Muraleedharan IAS and Dr.P.K.Raveendran were the Co-Chairpersons of the Working Group. To suggest measures by which Local Governments, independently and in coordination with departments, will promote economic growth in Kerala, to propose methods by which Local Governments can support industrialisation efforts of the present Government of Kerala, to suggest measures to develop productive sector, to review and, if needed, suggest measures to assist the programme to eliminate extreme poverty in the State and to review special problems, if any, in the field of decentralised planning and suggest measures to address the problems were the terms of references.

India's years of rapid economic growth, which saw the number of poor dropping from 40.7 crores in 2004-05 to 26.9 crores in 2011-12, also were years of moderate growth for Kerala. While the massive growth in industrial output during those years did not benefit Kerala significantly, the State's economy grew almost around the same level as the national average. The state faced problems during the subsequent economic slowdown; however, the growth rate was nominally higher than the national average until 2018-19. However, the trend reversed in 2019-20, with the State's growth rate marking a visibly declining trend.

The report addresses several issues that have slowed down the growth rate and offer suggestions on how to overcome the challenges by leveraging better achievements in social development and its rich pool of educated human resources. The Local Self Government Institutions (LSGIs) of the State, arguably the best-endowed and the most significant among the local governments in the country, should be able to play a vital role here.

While there has been an increasing consensus about the importance of entrepreneurship in promoting local economic development, initiatives in enterprise promotion had been either limited to tiny businesses run on subsidies or failed attempts in collectivization without adequately understanding the market dynamics. Value chain-based interventions cannot be planned without proper market inputs and technical backstopping by sectoral experts and technology providers.

Concerted efforts by LSGIs to address some of the pertinent development issues in convergence with line departments would require changes in the existing administrative and regulatory framework. This is another concern that the working groups tried to address. While the Plan Guidelines issued by the Local Self Government Department provide an overall framework for LSGIs to develop and implement their plans, line departments typically operate outside the purview of the guidelines. Therefore, there is a need to look at the platforms and institutional systems created when initiating the People's Plan Campaign for convergence.

The second chapter deals with replacing the silos in administer with a cohesive approach to development. An integrated approach to development would bring together the different tiers of LSGIs. Their convergence with cooperative institutions and Non-Governmental

Organisations (NGOs) will enable better formulation and implementation of projects. Proper institutionalized linkage could elicit a synergistic effect far more than the effect of a complementary relationship. Various government department institutions, Local Self-Governments bodies, Farmer Producer Organizations (FPO), NGOs, financial institutions, and Cooperatives should be able to channel their efforts through a common theme destined to reach a realistic, time-bound goal. This will benefit the farming community and the general public at large. The chapter details the current challenges in integration and lists out fourteen suggestions for better coordination and integrated program implementation.

The third chapter elaborates on why local self-government must focus on enhancing the production and productivity of agriculture and industrial sectors and building linkages with R and D institutions for sustainable development. Current challenges in production and productivity of the Agricultural sector are explained, and eighteen suggestions are offered for enhancing productivity through linkages with R&D Institutions.

The fourth chapter looks at accelerating the engines of growth through Entrepreneurship and Skill enhancement. The pandemic and the consequent loss of jobs have derailed the growth of several sectors pushing several into poverty by wiping away gains made in the preceding years. In addition, the last two years have also witnessed the return of several lakhs of Keralites from the gulf countries, a significant majority having little chance of a return to their former employment. This necessitates focusing on three major concerns - Entrepreneurship development, Skilling, and Employment generation. The chapter proposes a renewed approach and a new framework of integration at the level of LSG institutions that can significantly enhance the chances of successful implementation. An important suggestion is to develop a value chain analysis to integrate micro-enterprises across the State into a value chain, a framework for execution, and support organizations to make the ecosystem robust.

The fifth chapter is concerned with another critical role of LSGIS – eliminating extreme poverty. It looks into issues of livelihood security and interventions in local economic development. The chapter includes suggestions on focused interventions to strengthen the institutional mechanism such as capacity building, Skilling, and empowering vulnerable sections a) Utilizing existing programs such as KASE, KDISC, SANKALP, PMKVY, KVKs to build life skills and to foster innovations in the LSGI. b) Establishing institutional linkages by promoting “LSDI linkage, “such that every LSGI can be linked to an academic or research institution in the region based on the potential to provide hands-on support for Skilling and sustainable livelihood strategies. c) “One district, one product”- which has the potential to reduce the chances of early failures, which might be causing substantial livelihood insecurity in the case of the most vulnerable sections of the society. Agro-ecological Zones-based farming systems promoted by KAU are examples of focusing on ecological sustainability and assuring income security from farming. d) District-level incubation centres for start-ups and innovations can reduce the chances of early failure.

Chapter six deals with integrating Sustainable Development Goals with the planning process in Kerala. This chapter is divided into four parts: the first part deals with how the SDGs

can be integrated with the planning process in Kerala, the second part deals specifically with gender concerns against the context of the SDGs, the third part deals with other special groups and the fourth deals with disaster resilience as an overarching theme which needs to be integrated into the overall planning process.

Chapter seven looks into one of the primary responsibilities of LSGIs' – civic amenities. The chapter discussed the status of infrastructure development, revamping existing infrastructure, and creating new ones. Suggestions for developing local infrastructure, enhancing efficiency in service delivery, improving local production and distribution, ensuring environmental harmony, extending social justice, and augmenting welfare are included. Finally, pointers to improve the usefulness and effective utilization of civic amenities are offered.

The concluding chapter discusses some of the areas that would require a closer look to make development interventions by LSGIs more effective. Sixteen suggestions are offered that may be considered worthy of further deliberations. Suggestions include constituting a Block Level Project Coordination Forum to ensure convergence between departments and local governments and across the three tiers of the local government system, setting Clear norms and systems for monitoring projects at the local government level. In addition, formulating a clearly defined system for innovative projects and service level agreements for departments is necessary for joint project implementation.

Also needed is a one-time clearance of land documents and a system for endorsing ad hoc eligibility at the local government level. Further, planning natural resource management and livelihoods projects will enable integration with MGNREGS. Furthermore, it is recommended that norms be laid down for projects under public-private partnership (PPP) by the District Industries Centres (DICs) and set up rural incubation centres in PPP mode. Finally, there is a need to ensure the inclusion of transgender and LGBTQIA and develop a framework for clean energy which the local governments can adapt to suit the local contexts.

CHAPTER 1

INTRODUCTION: THE DEVELOPMENTAL CONTEXT OF THE STATE AND THE GAPS THAT NEED TO BE ADDRESSED IN THE FOURTEENTH FIVE-YEAR PLAN

Introduction

India's years of rapid economic growth, which saw the number of poor dropping from 40.7 crores in 2004-05 to 26.9 crores in 2011-12, also were years of moderate growth for Kerala. While the massive growth in industrial output during those years did not touch Kerala in any significant way, the State's economy grew almost around the same level as the national average. Kerala also faced problems during the subsequent economic slowdown; however, the State's growth rate was nominally higher than the national average until 2018-19. Then, however, the trend reversed in 2019-20, with the State's growth rate marking a visibly declining trend.

The decline was not without reasons; a series of natural calamities starting with Cyclone Ockhi in 2017, followed by extreme rainfalls and ensuing floods and landslides in 2018 and 2019 ravaged the State's economy affecting the lives and livelihoods of its people. Productive sectors of the economy were hit at an unprecedented scale. The downward pressure on growth rates aggravated the near standstill caused by the pandemic Covid 19 and the consequent lockdown.

The low economic growth coupled with rising prices, with inflation measured in terms of consumer price index hovering around 7%, the year 2020 had been particularly adverse for the State's development plans. Even though natural disasters and the pandemic did cause unprecedented setbacks to the economy, it is imperative that the State critically examines some of its weak areas in economic development. It is worth noting the low or negative growth in the gross value added in agriculture and allied sectors during the decade that culminated in the crisis year of 2020.

The near-stagnation, with low growth in size and its share to the gross value added of the manufacturing sector, has been another challenge that the State had faced. Although during the high growth years of 2004-2012, the other South Indian States in general and Tamil Nadu, in particular, made significant strides in the manufacturing sector leading to unprecedented levels of job creation in the service sector, Kerala's growth was not impressive.

Despite the efforts put in by the State in creating a facilitating ecosystem for start-ups, promising ones with high potential for growth and employment generation are yet to come up in the sector. While tourism in Kerala took a beating during the pandemic, even after a brief recovery after the 2018 floods, the State has not been able to make a mark in terms of developing an ecosystem for export-oriented businesses. The pandemic affected all the sectors; however, its impacts on the micro, small and medium enterprises (MSME) sector had been particularly harsh.

The unemployment rate in the State has declined from 11.4% in 2017-18 to 9% in 2018-19,

according to the Periodic Labour Force Survey (PLFS) 2018-19. However, it may be noted that it is much above the national average of 5.8%. The unemployment rate among youth in the age group of 15-29 years has been 40.5%; Kerala ranks the highest in the percentage of unemployed among educated youth. The unemployment rate is much higher among females at 17.1% compared to males (5%). Even though higher than the national average, viewed against the relatively higher educational levels, the work participation rate for women in Kerala is significantly low (31.9%), far behind that of men (78.9%).

Higher dependency on the workforce is another challenge that the State is faced with. The percentage of people above 60 years of age in the State (16.5%) is considerably higher than the national average. Even though this is an outcome of relatively better social development, the expected share of people in the age group of 60 years and above for the year 2031 at 20.9% demand better planning on the economic and social domains. Such a higher percentage of elderly in the population points towards progressively growing dependency on a relatively shrinking worker population.

In the wake of the Covid 19 pandemic, the State's dependence on remittances of its non-resident workforce has emerged as a new challenge. Kerala contributes a fifth of the country's remittances, which forms one-third of the State's income too. Widespread job loss reported among Malayali workers in the Middle East is a reason for concern. While the State will have to bear the consequences of a fall in remittances, finding employment avenues for the repatriated workers would be another burgeoning challenge.

Another problem that the State has still not addressed adequately is the relative backwardness of the 'outliers' of the Kerala development path. Scheduled Tribes (ST), Scheduled Castes (SC), and the fishing communities have been considered outliers, meaning sections that have benefited comparatively less from the State's economic growth and social development achievements. Addressing the specific problems faced by these communities would require particular focus and systematic efforts.

Kerala should overcome the challenges enlisted here by leveraging better achievements in social development and its rich pool of educated human resources. The Local Self Government Institutions (LSGIs) of the State, arguably the best-endowed and the most significant among the local governments in the country, should be able to play a vital role here. Kerala's LSGIs have formed a central theme in the development discourse of the State ever since the mid-1990s when the massive devolution of funds and personnel coupled with organized efforts to strengthen local-level planning brought them to reckoning as important development institutions.

Kerala had been at the forefront in assimilating the spirit of the 73rd and 74th Constitutional Amendments of 1992. The State enacted its new Panchayat Raj Act and Municipalities Act by April - May 1994, the first State to do so after the Constitutional Amendments. In October 1995, the State devolved the 29 functions listed in Schedule XI (Article 243G) to the Panchayats and Municipalities. State Finance Commission (SFC) and State Election Commission (SEC) were constituted in 1994 and 1995, respectively, and in February 1996, a special budget document was introduced for local government allocations.

In August 1996, the new government announced a massive devolution of funds amounting to 35% of the State's plan resources to local governments. This move, described subsequently as the 'big bang' of Kerala's decentralization, meant a jump in the resources at the disposal of local governments from around Rs. 20 crores to Rs. 1025 crore in 1997-98 and Rs. 1178 crore in 1998-99, unparalleled in scale and untied in nature. Moreover, taking up cues from the real experiences of local-level planning, the State comprehensively restructured the Kerala Panchayat Raj Act and Kerala Municipalities Act in March 1999.

The year 2000 saw 35 amendments to various Acts relevant to the functioning of local governments. Moreover, with the deployment of district-level offices and staff to District Panchayats and the redeployment of surplus ministerial staff and engineers to local governments in July 2000, LSGIs in Kerala started standing up as not just platforms of participative democracy but as institutions capable of handling local economic development. The series of events described so far stand testimony to the State's importance on local governments regarding issues relating to development.

Decentralization had its elements in addressing broader development issues even as the People's Plan Campaign was unfolding. Women Component Plan (WCP) was introduced with 10% of the LSGIs' plan funds earmarked. Two-thirds of the funds under the Tribal Sub Plan (TSP) and Special Component (SCP; later renamed Scheduled Caste Sub Plan – SCSP) were transferred to the local governments. Furthermore, more importantly, the practice of making sectoral allocations post facto was discontinued, enabling local governments to do allocations across sectors. Even though subsequent developments brought down the LSGI share of TSP to 25% and that of SCSP to 45%, the decision to entrust these with LSGIs brought out a new perspective on how development was approached local level. Social justice, another mandate of LSGIs, was being institutionalized.

Local economic development is one of the constitutional mandates of LSGIs, along with social justice was given priority by the promoters of the People's Plan Campaign. This was evident from the insistence on allocations to the production sector and the cap on infrastructure allocations. In addition, specific initiatives such as 'district planning' and watershed-based agriculture plans addressed the issues in the production sector.

However, the LSGIs, on their part even today, continue to be more attuned to social welfare and civic amenities rather than local economic development. A closer look at the LSGI projects reveals an overarching welfare orientation, the social development imprint being visible even on the limited interventions that the LSGIs take up in the production sector.

One of the most fundamental issues that LSGIs face in taking up projects in the production sector, and for that matter in any sector, has been the difficult task of coordinating with the line departments. Transferred institutions are also limited by the continuing dual reporting system of staff supporting LSGI programs; their priority is departmental schemes. Cases of departments and LSGIs running similar schemes in parallel are also not uncommon. One of the issues that this working group discussed was breaking the silos and pushing for integrated planning and program implementation approach.

Applying appropriate technologies and techniques is a prerequisite to producing results through enhanced productivity and efficiency in the production sector. However, LSGIs have faced challenges in linking with research and development (R&D institutions) to avail technology inputs. This is not limited to LSGIs; various departments have also shown lukewarm responses to innovations in technologies and inputs.

While there has been an increasing consensus about the importance of entrepreneurship in promoting local economic development, initiatives in enterprise promotion had been either limited to tiny businesses run on subsidies or failed attempts in collectivization without adequately understanding the market dynamics. Value chain-based interventions cannot be planned without proper market inputs and technical backstopping by sectoral experts and technology providers.

Extreme poverty has been addressed repeatedly; however, a program along those lines came up only when 'Asraya' was introduced in 2004. Asraya, conceived as a community-based destitute identification and rehabilitation program promoted by LSGIs with support from Kudumbashree, had been a runaway success early on. It had been able to rehabilitate 1.57 lakh destitute families over time; however, several limitations of Asraya have also surfaced over the years. As a result, the final budget of the last government had announced a new program for identifying the poorest of the poor and preparing micro plans for each family, along the lines of the micro plans prepared for the rehabilitation of scattered tribal families Alappuzha.

Women Component Plan (WCP) was introduced as part of the People's Plan Campaign when LSGIs formulated their Ninth Five Year Plan from the grassroots. Now, moving towards the Fourteenth Plan, several things have changed, including the dominant paradigms on development. A new gender dimension that includes minorities such as transgender and LGBT would be better suited for LSGIs. There are other special groups too that require attention. Even though compulsory allocations have been made by earmarking funds for children, the elderly, and persons with disabilities (PwD), much more needs to be done on these fronts. Palliative care program on the LSGIs, even though one of the first of its kind in the country, leaves much to be desired.

The provision of civic amenities, a primary responsibility of the local governments, has faced challenges due to the paucity of funds and lack of innovative programs. Haritha Keralam Mission was a later addition aimed at the collection and handling of household waste. While this has achieved scale and reach, LSGIs will have to go a long way in ensuring hazard-free waste management, which is part of sanitation; another primary responsibility of LSGIs is revamping existing infrastructure and creating new ones necessary are challenges that LSGIs will have to address.

Concerted efforts by LSGIs to address some of the pertinent development issues in convergence with line departments would also require changes in the existing administrative and regulatory framework. This is another concern that the working groups tried to address. While the Plan Guidelines issued by the Local Self Government Department provide an overall framework for LSGIs to develop and implement their plans, line departments

typically operate outside the purview of the guidelines. Therefore, there is a need to look at the platforms and institutional systems created when initiating the People's Plan Campaign for convergence.

The outcomes of the deliberations done by the working group are presented here in eight chapters. The second chapter deals with the necessity of an integrated approach to development, the different tiers of LSGIs, and their convergence with cooperative institutions and Non-Governmental Organisations (NGOs) for better formulation and implementation of projects. The third chapter is about the enhancement of production and productivity. It examines the possible ways for LSGIs to link with R&D institutions.

The fourth chapter, which looks into entrepreneurship, examines the challenges in enterprise promotion and looks at employment and skilling. The fifth chapter is concerned with another critical role of LSGIs – the elimination of extreme poverty. It looks into issues of livelihood security and interventions in local economic development. Finally, chapter six deals with groups and sections that need special attention, which is done within Sustainable Development Goals (SDGs).

The penultimate chapter looks into another of LSGIs' primary responsibilities – the provision of civic amenities. The chapter discussed the status of infrastructure development, revamping existing infrastructure, and creating new ones. The concluding chapter looks at the possible changes and amendments required in the existing rules, regulations, and guidelines for making development interventions by LSGIs more effective.

CHAPTER 2 BREAKING THE SILOS: AN INTEGRATED APPROACH TO DEVELOPMENT

2.1 Introduction

Excellence emanates not from the dark, isolated silos but from the corridors of light to which all doors are open. Proper institutionalized linkage could elicit a synergistic effect far more than the effect of a complementary relationship. Various government department institutions, Local Self-Governments bodies, Farmer Producer Organizations (FPO), NGOs, financial institutions, and Cooperatives should be able to channelize their efforts through a common theme destined to reach a realistic, time-bound goal. This will benefit not just the farming community but the general public at large.

1. A significant amount of assets, funds, and establishments of the development departments had been transferred to LSG's at the Grama Panchayath, Block panchayath, and District panchayath levels during 1995 as part of the shift to decentralized governance. Proper utilization of these assets guarantees a significant impact on the lives and livelihood of the people. Every department should be encouraged to come out of the silos to be working for the same beneficiary. When the departments work independently, they often miss the real target. Nevertheless, the convergence helps us to hit the target immediately. This chapter hence deals with the current challenges in integrating development departments, different tiers of LSGIs, cooperative institutions, and NGOs for better project formulation and implementation and suggestions for better coordination and integrated program implementation.

2.2 Current challenges in integration

2. In the current scenario, due to the lack of a suitable platform for utilizing real expertise in the plan implementation process and lack of connection with other fields, the working group discussions often tend to be a farce. The officers of each tier of LSG of the various development departments working in grama panchayaths are under the dual control of the corresponding LSG and the respective departments. Meetings, reporting, and even projects overlap boundaries and are unproductively repetitive with a considerable drain on human effort.
3. Convergence of schemes/projects in the two streams does not practically happen due to differences in the timing of planning and implementation. Basic data updating does not happen at the Grama panchayath level rendering the data obsolete for any real-time use. Hence the planning process itself could be made much more effective. One of the keywords of decentralized planning in our State is watershed-based management. Watershed master plan based on micro watersheds is not being updated in every Grama Panchayat (GP). Watershed-based maps could serve the purpose of integrated planning of the various departments only if it is available online and updated regularly. There is no convergence between various departments/agencies/MGNREGS in Natural Resource Management activities undertaken in watershed

development projects. Decentralized planning begins from the GP level, various GP data consolidated at Block Panchayat (BP), and then various BP data at District panchayat (DP) levels. However, the participation by people in Grama Sabhas at each level, quality of deliberations, outcome, and its relation with final project proposals pose tough questions on the effectiveness of the entire process.

4. Since there is no state-level entity involved in implementation, decentralized planning stops at the district level, leading to District plans unconnected to a focused theme of the State or nation. There is no mechanism to ensure that the consolidation of district plans would lead to fixing the State's priority issues. Department schemes still follow the Top-down approach, which is not at convergence with the decentralized process in terms of funds and efforts. LSG has not played its part entirely effectively co-coordinating agriculture, animal husbandry, health, fisheries, soil conservation, irrigation, and public works departments. Every department functions parallelly.
5. Another stumbling block with LSG scheme implementation is the beneficiary selection process. Although it is thought to be judicious, it does not end up in finding the proper beneficiaries. The implementing officers often neglect the 'organizing' function in the plan implementation cycle. Field-level monitoring of schemes/projects seldom happens. In the case of LSG projects working group itself functions as the monitoring committee. Entrepreneurship development projects and innovations in the development sectors are not thrust by implementing officers /working groups even though there is scope for it in revised project guidelines due to lack of institutionalized assured support from R&D institutions. The mode of preparation of projects revolves around the "codes." The best alternative is to switch to an 'innovative project' to solve this issue, but the lack of proper awareness and support scope for preparing innovative projects outside the general guidelines and codes is not effectively utilized.
6. The role of banks in the productive sector is limited now to two things 1) issuing loans and 2) carrying out retail fertilizer/manure/PPC sales as authorized dealers, generally with few exceptions. Lack of initiative to link the resource crunch experienced in funding innovative development projects at the GP level with the Cooperative banks is due to the absence of an effective administrative mechanism from the top through specific policies or lack of coordination at the panchayath level. Stakeholder discussion is rarely done for critical funding gaps in development projects.
7. The customer base of PACS as potential consumers is often forgotten while planning marketing projects. Collateral security demanded by PACS often rejects credit services to actual resource-starved farmers without land. (Lease land farmers) Unique campaigns of the Government like the Special Liquidity fund (SLF) and KCC are not taken seriously by PACS in providing credit to the worthy farmer. Often, the beneficiaries of such campaigns are the same and mostly related to the power centers of these institutions. In reality, most PACS have moved away from its foundation goal of serving agriculture and allied sectors. Farm plans/profitability /technical feasibility are not generally considered while disbursing loans to farmers by the PACS.

2.3 Suggestions for better coordination and integrated program implementation

8. Each panchayat should develop a master plan of its own and five-year plans in line with

the state plan. Human / financial resources such as Cooperative Societies, Microfinance, Kudumbashree, and Employment Guarantee Scheme should be involved in the planning process itself. There should be a theme common to all departments and agencies. The department's employees should have a deep connection with the locality and the socio-political system. R&D intuitions should support finalizing projects outside their domain of expertise.

9. The reorganization of departments should be done from time to time and data updated online. Capacity building and direct exposure to planning, management, and political leadership must be ensured to inculcate the culture of exploring innovative possibilities. Parties like KILA / IMG should find partners in each district and implement a permanent training / mentoring system infusing confidence and focusing on the targets for the 14th five-year plan. The audit system should be restructured following global planning methods. Enthusiastic and innovative implementing officers should not be unduly penalized. A beneficiary activity calendar must be implemented. Local resource mapping should be an ongoing program available online and updated in real-time.
10. Dual control of staff should be avoided; the relationship with LSGD should help in the actual implementation program. Respective departments should take up administration. Meetings should be convened based on a pre-fixed schedule so that practical deliberations happen. The time of planning in the department and LSG has to be synchronized to December- January, verification and approval during February - March, and implementation starting on 1st of April without a day of delay. Integrated guidelines of LSG & development departments like the LSG "Margarekha" will create better convergence between schemes and project planning. Between February and March, there must be a mechanism to ensure any corrections from State to GP level regarding the mandatory allocation of funds to any specific project. (e.g., earmarking funds locally to flagship programs of any department).
11. The central theme could be economic development by increasing productivity and farm revenue. Watershed master plan based on micro watersheds has to be updated in each GP, with the help of authorized agencies/Soil Conservation dept. A team comprising of multidisciplinary experts should visit each micro watershed and appraise available resources, problems and formulate solutions. The activities identified should be broken down into short-term and long-term plans and implemented through GP projects. Necessary convergence with various dept/agencies/MGNREGS has to be ensured. Integrated Farming system demonstration plots have to be taken up to popularize emerging concepts that enhance productivity & farm income. Farm schools that demonstrate all state-of-the-art technologies may be an excellent integrated approach for on-hand training. Soil and water conservation methods have to be adopted to enhance productivity. This can be attained utilizing the MGNREGS at the GP level. Integration of Agriculture, Animal Husbandry, fisheries sectors are needed to reduce the risk involved in each enterprise and increase the farm revenue from the unit area. "Jaivagriham" project (RKI scheme) model needs multiple funding to farmers,

which can be ensured through the moot convergence. To improve the organization of plan projects, every project stakeholder has to be organized to attain the laid-out objectives (e.g., Credit from Banks/cooperatives, purchase or sourcing of other inputs from authorized agencies, Karshika karmasena, and MGNREGS can add to the labor component. Agro service centers should be a thrust area that provides inputs for agriculture and all production sectors.

12. Monitoring during plan implementation should be given more thrust than an audit that happens after implementation-monitoring and evaluation help redirect the project at any stage to reach the desired end objectives. Entrepreneurship development projects in agriculture and allied sectors have to be taken up with the guidance of Kerala Agricultural University/Kerala Veterinary and Animal Sciences University/Kerala University of Fisheries and Ocean Sciences, as the case may be. Awareness about innovative projects has to be created by popularizing success stories at Grama Sabhas.
13. A block-level project centre will be a feasible institutionalized mechanism for integration. (Block level -Agricultural Knowledge Centres can be upgraded to act as block-level project directorate) with ADA as convener and the respective scientists assigned by KAU, KVASU, KUFOS, or any other R&D institution as expert members. Other block-level production sector implementing officers can act and participate effectively in such a mechanism. This mechanism has to coordinate and effectively converge the resources of all agriculture and allied departments, LSG, irrigation, MGNREGS, R&D intuitions. Another integrating device could be the Virtual business project clinics. They can be established in each district by KILA or IMG or by establishing a network of integrated expert advice from the universities mentioned above. Integration has to happen also with Kerala University of Health Sciences and APJ Abdul Kalam Technological University, IIM, IRTC, Central University, Kerala, Calicut, MG, CUSAT, and all other well established traditional universities and R&D institutions of Kerala. in areas of IoT, on health, climate change mitigation, use of artificial intelligence for developing marketing strategies during planning, monitoring and implementation.
14. Local cooperative banks and their branches can contribute to the financial integration of the projects and hence must be included in both the institutional mechanism mooted. Projects have to be integrated with financial institutions so that the national-level funding opportunities can be channelized. NABARD and MSME, and other agencies should be a part of this venture.

Breaking the silos in planning and implementation is not about making more silos. Instead, it is a conscious convergence of man and materials by creating an ecosystem where a silo exists.

CHAPTER 3

ENHANCEMENT OF PRODUCTION AND PRODUCTIVITY THROUGH VARIOUS SECTORS AND LINKAGES WITH R&D INSTITUTIONS

3.1 Introduction

1. Local economic development is the most important determinant for the improvement of the quality of life in terms of rights-based inclusiveness and resilience of the society. Kerala's historical strengths - land reforms, education, decentralized governance, and co-operative sector - are its unique features. These strengths provide the State with human resources for agriculture and industry that are unavailable in most other parts of India. Several developmental issues need to be addressed globally, such as inclusion in economic growth, food security, social security, and environmental protection. Four drivers of change - democracy, human rights, entrepreneurship, and innovation - come together for local economic development. A local action is an effective approach to solving social and environmental problems. The state of Kerala is celebrating the 25th anniversary of People's Planning, and this is the right time for local governments to reconsider their priorities and plan development projects that are sustainable. Local self-government must focus on the enhancement of production and productivity of agriculture and industrial sectors and their linkages with R and D institutions in a sustainable development perspective.

2. In 2016, the Government of Kerala took a decision to broaden and deepen the concentration on human development indicators - health, education, and social justice - for which our State is justly famous. These achievements would be used as a foundation for new achievements in material production in agriculture, industry, income-bearing services, infrastructure, and in order to create skilled employment, particularly for youth. The Government not only reduced the red tape but also communicated to all levels of Government, whether at the State or the Local Government levels, the need to help to do business. The threshold of a structural change in Kerala's economy towards modernization in terms of industrial and industrial services, infrastructural activities, and value-addition-led agriculture. There is a range of factors favoring growth in the area of industrial production. Kerala has a skilled, conscious, and digitally literate labor force. Kerala is a state rich in natural resources, including marine resources, but it is also a State with limited land space. However, the new technological possibilities opened up by what is often described as "Industry 4.0" make it possible for Kerala to reap the advantages of the wide domestic market in Kerala.

3.2 Current challenges in production and productivity of the Agricultural sector

3. Agriculture and agricultural modernization are key components of the Plan. One of the important weaknesses of agriculture in Kerala is the low productivity of most of its major crops. Enhancing productivity means modernizing agriculture through better modern science-based inputs and farming practices. Higher profitability means higher farm business incomes to farmers. Better sustainability emphasizes farming that respects the environment. After consecutive years of decline, annual growth in the agriculture sector increased to

1.72 percent. There was 0.4 percent growth in crop production. The production of paddy increased from 5.49 lakh MT in 2015-16 to 5.78 MT in 2018-19. Productivity of paddy increased from 2790 kg/ha in 2015-16 to 2920 kg/ha in 2018-19. The area under vegetable cultivation and vegetable production increased significantly in this period.

4. In the post-Covid economy, agriculture can be an important staging ground for recovery. The Government of Kerala has already announced a large-scale agricultural programme that emphasises production, value addition, and marketing. Internationally, it is well accepted that scientific modernisation will be the basis for future breakthrough in agriculture. Kerala has much to learn from new developments in the world. The development of agriculture is increasingly focused on new research to increase productivity, particularly in biotechnology and nanotechnology. These new means also constitute the best ways to ensure sustainability of agriculture. Precision farming, which ensures a more efficient use of soil, water and minerals is also an important new area of growth.
5. The existence of institutional arrangement for technological advancement for increasing productivity in the State was highlighted. The drawbacks of the unique 30 model of providing extension service through Krishi Bhavans at gram panchayat level prevalent in the State, low adoption of new varieties, package of practices, technologies such as mechanisation and slow pace of production enhancement, and subsequent transition to secondary agriculture were pointed out as the major issues. Providing conducive environment to farmers for adoption of technology, development of comprehensive productivity plan through multidisciplinary consultation for enhancing productivity through area planning, linkage of research and extension for area planning, mapping of problems and solutions, setting long term and short term goals, development of production protocols specific to AEUs and crops, content generation for customised advisory service, and delivery to farmers in the field are the thrust areas of extension activities for enhanced productivity.
6. Application of GIS technology, awareness on soil fertility and need to enrich soil health, soil health card to every parcel of land, ensuring quality inputs and planting material availability through local bodies with the help of block level agriculture knowledge centres are the important interventions required. Technology development, its dissemination, and its adoption by end users should be directed towards fostering, validating, and converting innovations by farmers to technologies. Updating skills of extension personnel and para extension workers, reorientation of public investments in extension, institutionalisation for utilisation of skilled labour, reintroduction of group management of resources, incentivising technology integration and innovative practices, employment of ICT tools, utilising cooperatives for capital for infrastructure development, integrated farming, enhancing farmer-scientist-extension interface across State at gram panchayat and block level, and above all promoting entrepreneurship development and encouraging start-ups are important.

7. Lack of awareness of scientific dairy farming, deficiency in adoption of innovation technology, scarcity of scientifically cultivated fodder farms, inadequate training in modern cattle management, shortage of skilled labour force, and deficiency in information technology and transfer of technology are the main constraints affecting the progress of the dairy sector in Kerala. Nutrition efficient feeding practices, mineral mapping of fodder and feed, Government support for mechanisation to cut down labour cost and strengthening of the quality infrastructure facilities are essential for productivity enhancement in the dairy sector.
8. Nanotechnology as an emerging field of science, and Indian agriculture particularly Kerala needs to explore the possibilities of its application. The application of nano diagnostics to assess the quality of food, especially in the export context and to ensure safe food and nutritional security, the role of nano agricultural inputs such as nano fertiliser to reduce quantity of input usage and smart delivery of nutrients and usage of nano pesticide and bio inoculants need to be explored.
9. The use of blockchain technologies in management of post-harvest losses and establishing market linkages from production sites to the marketplace and to the consumers and establishing whole chain. Kerala has plenty of potential in rice, spices, fishery sector, and the root crops. It is necessary to take advantage of this technology in spices, since it is being exported. Establishing block chain technology, in case of spice, traceability, and also appropriate use of pesticides using proper technology, would enable a greater export market.

3.3 Current Challenges in production and productivity of Industrial Sector

10. Recent policy has shown striking results. The average rate of growth of industrial production in Kerala between 2016-17 to 2018-19 has been 11 per cent, with 11.2 per cent growth in 2018-19. The share of manufacturing in total GSVA of Kerala rose from 9.8 per cent in 2014-15 to 13.2 per cent by 2018-19. Kerala is at the forefront in implementing information and communication technology projects, e-Governance initiatives, and in creation of basic IT infrastructure. The most important gain of the last four years with respect to industry, however, has been the transformation of vision and mindset. The Government of Kerala has sent a clear message to India and the world that Kerala invites investment in modern industry. The State approved a new Industrial and Commercial Policy in 2018 with a vision to transform Kerala into a vibrant investment destination, and the Department of Industries has initiated several specific schemes and programmes to implement the 2018 policy.
11. The potential for the growth of agro-based industries is high in Kerala on account of both supply and demand factors. There are important possibilities for value addition in the case of agricultural products such as rice, coconut, rubber, pineapple, pepper, cardamom, and other spices and condiments. It is important to build on the existing investments and competitive advantages of Kerala to develop a cluster of industries.

12. Kerala's distinctive advantages include workers and entrepreneurs in the State who are educated, with many of them professionally qualified and having exposure to new technologies and the wider world. Another advantageous factor is the large domestic market in the State.
13. The promotion of small and innovative firms should become a distinctive aspect of Kerala's industrial policy. As a key aspect of industrial policy, Kerala should adopt the "triple helix" model of University-Industry-Government interactions to foster innovation and industrial growth. Universities and academic and research institutions in Kerala should take the initiative to promote the growth of start-ups and innovative industries. The State should take steps to bring research in academic and research institutions and industry closer.
14. Start-up policy in the State has to be broadened to incorporate sectors other than IT, including food technology, education, and health care. There has to be a push to encourage start-ups across the State. There should be specific measures to encourage start-up plans of students and start-ups in rural areas. Future-proofing of Kerala is important. This refers to the promotion of digital literacy and local innovation and the creation of an ecosystem for development. These steps will help pave the way for the emergence of digital Kerala.

3.4 Enhancing productivity through linkages with R&D Institutions

15. In the post-Covid world, the accountability of local government will increase as people will avoid travel as much as possible. The government must build all facilities for the people at the local level. Former President of India A P J Abdul Kalam envisioned "Providing Urban amenities in Rural Areas (PURA), focused on agro-food processing, education and healthcare, access to urban infrastructure in rural areas and self-sufficiency in using critical technologies. In the pandemic period, local self-government must focus on the concept of smart village to facilitate all urban amenities in rural areas to develop the local economy. Local self-governments can use the offices of start Gram Sabha Kendra in all wards of local bodies. Gram Sabha Kendra should function as the headquarters of all development activity of each ward. Various projects related to the ward should be identified and prepared based on the information obtained from public discussions in the locality.
16. Cultivation of improved varieties and hybrids is the most important approach for enhancing productivity of crops. However, lack of availability of quality seeds and planting material is a major constraint experienced by farmers for cultivating improved varieties. Hence, to augment the supply of seeds and planting material through the centralised departmental initiatives LSGs need to support Farmer Producer Organisations as well as other entrepreneurs in the production and distribution of quality planting material of improved varieties of selected crops through decentralised community nurseries. Utilisation of local elite germplasm of crops should be ensured in such interventions which help for nurturing agro-biodiversity for sustainable development.

17. Soil related constraints viz., high acidity and deficiency of primary, secondary and micro nutrients are important factors resulting in low productivity of crops in Kerala state. Hence, adoption of scientific soil health management practices considering the agro-ecological situations has to be given top priority for enhancing productivity and income from farming. However, studies have shown that extent of adoption of scientific soil health management practices including soil test based integrated nutrient management practices is quite low resulting in low productivity of crops.
18. Incidence of pests and diseases and crop loss due to the same is a major constraint experienced by farmers to make farming remunerative. Though various IPM and IDM technologies are available extent of adoption of such technologies is quite low due to various factors. Further, control of pests and diseases of crops will be effective only if all the farmers of a watershed adopt the recommended IPM and IDM technologies. Hence, to enhance adoption of integrated pest and disease management in crops to avoid crop loss and to make farming remunerative LSGs need to implement interventions for promoting Area Wide Community Extension Approach.
19. Watershed based planning for implementing interventions for better integration of technologies for soil and water conservation and low-cost water harvesting in farmers' holdings to enhance productivity and income. Regular and continuous programmes for implementing interventions pertaining to soil and water conservation and low-cost water harvesting in farmers' holdings need to be implemented by LSGs on a priority basis ensuring participatory approach and also effectively coordinating agencies like Department of Soil Survey and Soil Conservation, Department of Agriculture. Micro-watersheds should be selected on a priority basis taking into account the extent of degradation of natural resources. Funding sources including central sector schemes, NABARD etc should be tapped effectively. Grama panchayat level, Block level and District level action plans for watershed-based planning for development needs to be formulated.
20. An ecosystem-based approach of developmental initiatives is to be implemented in the production sector. The need of the hour is addressing ecosystems differently rather than implementing crop-based programmes as suggested below:
 - Wetland ecosystem development – a strategy should be developed to focus on crop rotation with food grains, pulses, oilseeds and vegetables to improve the soil ecosystem. This will enable better resource use of wet land in a sustainable manner, improving land productivity
 - Homestead ecosystem developmental needs comprehensive developmental programmes for homesteads that can assure daily, weekly, monthly, seasonal and annual income.
21. Organic farming policy, strategies and detailed action plan were declared during 2010 modifying the existing government orders of 2006 and 2008. The vision was to make Kerala's farming sustainable, rewarding, and competitive, ensuring poison-free water, soil and food to every citizen. The approach suggested was to convert Kerala into an

organic State focusing on potential crops and areas in a phased and compact manner. The policy also suggested conducting a comprehensive assessment of the farmer's well-being, economy and environment after three years of implementing the policy. Policies on organic farming have to be informed by the findings of the assessment.

22. Vast majority of the farmers in Kerala belonged to small and marginal categories. In the tiny fragmented holdings, the growers are unable to adopt the recommended scientific cultivation practices due to resource limitations which result in low productivity of crops. This indicates the need for social engineering interventions to promote group approach in farming to overcome the resource limitations in the fragmented holdings.
23. The existing Krishi Bhavan may be reoriented as Agri Business Centre (ABC) and the field officers as Agri Business Developers (ABD) and all such field Agriculture staff may be trained on Entrepreneurship Development and also on value addition in Agri produces so that Agri Business Developers (ABD) may act as mentors for the Agri entrepreneurs in the field. ABDs may act as a single source for technical & commercial information and guidance for Agri entrepreneurs. Potential entrepreneurs would need specific training inputs.
24. The scheme on *Karshika Karma Sena* initiated in selected grama panchayats needs to be spread to all grama panchayats. It has been observed that in many panchayats the Karshika Karma Sena formed are not functioning effectively due to reasons including lack of monitoring and continuous support from Krishibhavans. LSGs need to take the lead role in this activity of skilling and employment generation in crop sector. The members of the karma sena are to be empowered to manage the activities with a sound action plan considering the crops and enterprises of the concerned grama panchayat. Depending on the crops grown and agro-based enterprises functioning in the panchayat they should be trained to update the skill sets through appropriate capacity development programmes and also equipped with a custom hiring centre with appropriate farm machinery and equipments. Grama panchayats need to formulate interventions to coordinate the programme and to play a vital role to link the farming community and activities of Karshika Karma Sena.
25. Formation of the District Institute - Stakeholder Coordination Forum may have representation from willing technical, managerial, law, and business administration & commerce, R&D institutes, Industries, related departments and representatives from LSGs in a district. The forum may also have representatives from State Industries Department, Industries Associations, Large Scale & Public Sector Enterprises, Representatives from Universities, Lead bank, other stake holders etc. One Educational institute may act as a 'lead institute' in the forum for the purpose of coordination among the stake holders (Like Lead Bank scheme). The lead institute with the help of member Institutes may create a digital platform for effective interaction. The forum with the enabling digital platform may act as the institutionalized platform for the interaction between academia, R&D institutes and other stake holders. Any stake

holder may take up their specific problem statement in the forum and the forum based on the expertise of the individual institutes may assign the task to an academic institute and monitor the progress. The students may undertake the problems as their academic projects. Over a period, Domain Institutes with the expertise in a domain may also be identified and such Domain Institutes may network with other stake holders in the field to bring best practices to the local community.

26. Suitable internship programmes can be initiated by LSGs depending on the availability of research/academic institutions in the jurisdiction so that the scholars and faculty of science and humanities subjects can be roped in for better implementation of selected interventions under the decentralised planning.
27. Each District Industries Centre may prepare District, Block and Panchayath Enterprise Development Plan for a period of 5 years in consultation with stake holders. Each panchayath / Block/ District panchayath may be assigned a specific target in terms of creation of Enterprises, Investment, employment generation etc. Awareness creation/ training to LSGD authorities and staffs towards creating an Entrepreneurial ecosystem may also be considered. Resource & Cluster based approach with common branding, common facility centers for achieving economy of scale may have to be the integral part of such plan.
28. The other important resource is water, there is not much importance given to check dams and lift irrigation projects. Conjunction of dams and small water harvesting structures were not given importance. The productivity of land is less due to lack of irrigation, we have surplus water during monsoon and deficit during summer. An assessment of monthly water balance and water budgeting of every small watershed is essential; prepare the water storage and agriculture production plan based on this water budget. Make use of expertise of research institutions, universities, engineering and science colleges, polytechnics etc. in this endeavour. Small activity groups including youth, women and children can be formed under the leadership of the ward members/ councillors for conserving small water bodies under their jurisdiction while the maintenance of large water bodies can be taken up by the inter LSG integration under the leadership of the Presidents of Grama Panchayath/ Block Panchayath/District Panchayath or District Collector as the case may be.
29. Since aquaculture is the only means to augment the fish availability (since the capture fisheries is either levelling/declining, leaving no room for further enhancement) it has to be promoted in such a way that wherever water is available (without any conflict of interest) that should be used for fish/food production. Responsibility of surveying and keeping the up-to-date map of available water resources is to be given to the LSGs with sufficient funds for the purpose so that the planning process can be made easy.
30. Fish is the most celebrated health food by the international organizations and improving the fish consumption has to be made the mandate of the Government through integrating the Department of Fisheries, Health and LSGs. Incorporating quality

fish (adhering to food safety) in the mid-day meal of school students can be actively considered to augment the health status of the children in terms of better cognitive skills and disease resistance. “Shakuntala Thilsted Model” of health improvement of mothers and children can be taken up in selected Panchayaths of lower health status (SC/ST dominating areas). This concept involves the utilization of water bodies for culturing small indigenous varieties of fish (like our vayambu, paral, pallathy etc.) and incorporating these in the diets to address the micronutrient deficiency among the under privileged communities. The judicious aquatic resource utilization under their possession for the improved fish production should be the made the responsibility of the respective LSGs.

31. The aquatic ecosystem conservation like maintenance of proper depth and flow, removal of aquatic weeds, preventing aquatic pollution etc. should be taken up by the LSGs as their primary responsibility for which proper funds should be made available as per the extent of water bodies they possess.
32. Ornamental fish keeping which would support the community especially the child folk in stabilizing their happiness levels through ensuring better hormonal balance should be promoted at the LSG level to save our children from attention deficit syndrome and virtual game addiction to a great extent. If possible, establish small public aquaria at Panchayath level to improve the awareness among the community especially the children. This sector can generate jobs of various natures among the local population.
33. The responsibility of mangrove protection and conservation (in the applicable areas) to improve the fishery should be given to the LSGs with proper funding support involving students, youth and women in the name of “ManGroups” which was initiated by KUFOS a few years back as part of a mangrove project but later got inactive. Small activity groups including youth, women and children can be formed under the leadership of the ward members/councillors for conserving small water bodies under their jurisdiction while the maintenance of large water bodies can be taken up by the inter LSG integration under the leadership of the Presidents of Grama Panchayath/Block Panchayath/District Panchayath as the case may be.
34. Tourism is a fast-developing industry. Tourism provides lot of employment opportunities with low investment. Block Panchayat will be competent forum to set up ecotourism clubs to promote responsible tourism. And also, to construct infrastructure at identified tourism destinations. Supervision and monitoring of private homestays, hotels and other entertainment amenities can be brought to integrate the local food processing units with tourism requirements.

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CHAPTER 4

ACCELERATING THE ENGINES OF GROWTH THROUGH ENTREPRENEURSHIP AND SKILL ENHANCEMENT

4.1 The context

Kerala is today at the crossroads, having to decide on the next steps ahead that can not only consolidate the socio-economic progress achieved to date but also make reparations for the economic damage done by the pandemic. The pandemic and the consequent loss of jobs have derailed the growth of several sectors pushing several into poverty by wiping away gains made in the preceding years. In addition, the last two years have also witnessed the return of several lakhs of Keralites from the gulf countries, a significant majority having little chances of a return to their former employment.

4.2 Entrepreneurship

1. One of the primary objectives of the decentralized planning process is to overcome the stagnation existing in the productive sectors. However, despite the continuous efforts, the share of the agricultural and manufacturing sectors, including the small and medium scale industries in the secondary sector in the SGDP, has gone down considerably for the past two decades. Moreover, natural calamities and the pandemic have dealt a solid blow to the entire economy in the last few years.
2. Most of the mass consumption products in our day-to-day life are products of small-scale manufacturing and often come from outside states or are imported. This points to the immense potential to use local talent and entrepreneurship to build production and manufacturing capabilities. Moreover, once the pandemic is under control, the economy is bound to expand, offering opportunities to advance localization.
3. The integration of the state economy has the prospect of providing opportunities for extensive economic and income growth. For the people of Kerala state, developing small and medium enterprises in the manufacturing and services sectors is of paramount importance to enhance employment and income generation opportunities. Without additional employment generation, there is little hope of staying out of poverty and earning enough to better HDI indicators.
4. Micro enterprises in the state (micro-enterprises under the Kudumbashree are a case in point) face several constraints like their small size and consequent inability to gain from economies of scale, limited access to cheaper yet quality raw materials, information asymmetry, low levels of skills, and poor technology adoption and most importantly poor market access.
5. Though there have been steps taken to introduce micro-entrepreneurs of Kudumbashree to the online marketplaces, empirical evidence reveals several challenges that micro-entrepreneurs continue to face. The most important is quality and packaging issues and non-competitive pricing due to poor economies of scale. Unless branding, packaging, and quality concerns are addressed, online promotional fairs and discounts alone cannot make online markets viable and sustainable.
6. Several studies point to the lackadaisical approach of the local self-government

institutions in addressing localization of production and manufacturing. Even though many issues confronting the sector cannot be resolved independently at the local level, the scope and possibilities of their contribution and intervention are immense.

7. Assessment of resource availability, gap analysis in skillsets, assurance of convergence between various departmental schemes, timely preparation, identification and monitoring of projects, resolving marketing and delivery related issues, and ensuring quality standardization could significantly contribute to better and effective planning at the LSGD level.
8. Local self-government institutions can play a pivotal role in building a conducive environment for the formation and expansion of microenterprises in different sectors depending upon the resource availability and better utilization of the available resources. The capacity building of rural poor, considering the local peculiarities and the market needs, shall be given due importance to motivate them to engage in income-generating activities. Likewise, the high dependency on wage employment needs to be reduced. The aspirations of the educated youth should be diverted to entrepreneurial-related activities through skilling at the local level. The start-up mission, the digital academy, the R&D institutions, the higher education institutions, and the technical giants operating in the country could join hands with the local institutions for better guidance, implementation, and monitoring of projects and providing small and medium scale assistance ventures in the Panchayath. An engagement of LSGIs with school and college-level start-ups would be beneficial for both institutions.

4.3. A proposed solution: Value Chain Analysis

9. It is now time for rebuilding the foundations of the state economy, and an essential move on that front will be the integration of micro-enterprises across the state into a value chain wherein they can find opportunities for sustained growth.
10. Value starts from raw materials to the after-selling services. The farmer or enterprises should recognize their position in the value chain that creates their product or service. Building a value chain involves the integration of enterprises into a viable and self-sustaining market system. It builds inter-enterprise relationships and creates a whole ecosystem of farmers, traders, manufacturers, wholesalers, retailers, and intermediaries who can together run the production, distribution, and consumption cycle uninterrupted.
11. A macro-level intervention of developing value chains has the advantage of integrating micro-enterprise to markets and opening up several new categories of employment across different parts of the value chain, thereby creating micro-level outcomes. Further, value chains improve the competitiveness of contributing enterprises by percolating down market feedback on the nature and quality of products in demand.
12. An illustration of an Agri-based value chain will convey the benefits of adopting this approach.

We need to focus on three major concerns - Entrepreneurship development, Skilling, and Employment generation. Though there are several policy initiatives for each area, a renewed approach and a new framework of integration at the level of LSG institutions will significantly enhance the chances of successful implementation

Conventional market: Farmer – hyper-local / local market

Risks:

- Unremunerative prices due to competition from regional/ local producers;
- Glut in the market due to seasonal oversupply as most farmers may reap harvest around the same time
- Lack of access to food processing facilities hence product loss
- The small scale of production makes value additions expensive and unviable
- Switching to other crops that seem to have better prospects, only for the same story to be repeated.
- **Fitting in a value chain:** Farmer – aggregator (wholesaler) – food processing stages (primary, secondary and tertiary) ----distribution partner--- retail market

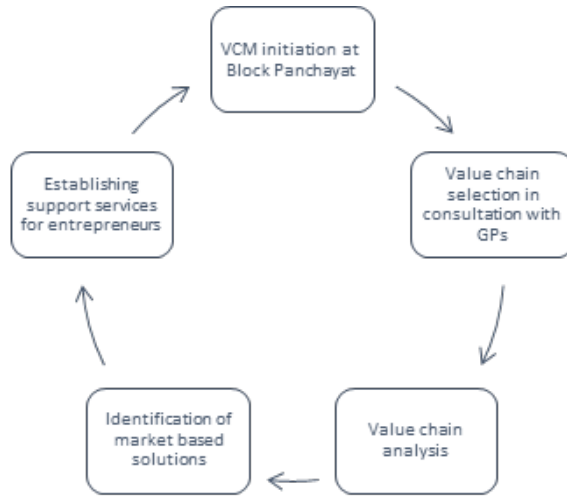
Advantages:

- Lowered risk on account of being connected to players in the value chain that ensures continued demand for produce
 - Opportunities to grow non-traditional high-value fruits and vegetables as the demand is assured
 - Higher investment in agriculture
 - Several new enterprises and employment opportunities open up while setting up different parts of the value chain across each district.
13. Separate value chains need to be developed for categories of agricultural produce and handicrafts and handlooms. It is proposed that value chain identification for major products of each district be undertaken so that the ones with the most prospects for the national and international markets be identified and developed. This exercise of Value Chain Mapping will form the foundation for the integration and development of a robust and sustainable ecosystem.

4.4. A framework for execution

14. Value Chain Mapping – the identification and creation of value chains can be undertaken for specific products and services for each district as its impractical for multiple categories. Districts may choose agricultural produce mainly cultivated in that district or local specialties/ varieties with greater potential for business both within and outside the state.
15. The steps in the value chain identification process may be undertaken at the Block panchayat level, and the administrative resources for the ongoing monitoring of the enterprises and resource support for them would be best executed at the district level.
16. The value chain concept will help the administration gain a macro view of production in the district and in facilitating entrepreneurs – both current and prospective - in positioning their ventures in the value chain based on feasibility, viability, and profitability.

The core activities would be as follows:



4.5 Establishment of Support Services

The triple challenges of encouraging and supporting entrepreneurship and building marketable skills among the youth and the employment generation can be tackled by support services identified and made available at the Block panchayat level.

The support services would include the following:

17. Entrepreneurship development and support services: Micro-Enterprise Consultants (MECs) can be trained through the enterprise administration and management programme that Kudumbashree has developed as a national model; MECs can then cascade the capabilities at the enterprise level. In addition, ways to upskill and retrain MECs should be explored.
18. Skilling: Various skilling programs identified are to be market demand-driven. The role of the block panchayat would be to link institutions offering skilling programs or work with ASAP to offer them at the school level. Several of these skills would be those that can be absorbed by the different parts of the value chain (details under skilling).
19. Employment creation: The gaps identified in the value chain will offer opportunities to set up new enterprises and generate new employment avenues. Such a macro view will be critical for industries dept, agricultural, fisheries, and other allied universities in guiding and supporting entrepreneurial ventures better.
20. Support services are to be made accessible through a process of interdepartmental and inter- institution coordination (which is, unfortunately, lacking now). The planning board needs to introduce Service Level Agreements for all departments that are to execute projects jointly. Unless the process and time frames are specified in an SLA, good ideas are bound to be lost in execution.

4.6 Measures proposed to be undertaken at the LSGI level to provide a conducive environment for developing enterprises at the local level.

21. **Setting up Enterprise Facilitation Centres:** Attempt to transform local talents into enterprises shall be a priority agenda before LSGIs. Identification of talents available locally is the first step. Following this, promising business ideas can be developed into an enterprise. Local small business entrepreneurs focus initially on a single product for the neighbouring markets. Most small businesses are either self-funded or funded through small business loans. LSGIs should get the project proposals evaluated by competent agencies or persons and if found technically and financially viable shall facilitate part-funding requirements themselves or through financial institutions.
22. **Ensure Marketing Linkages:** The LSGIs can choose the services of management/ Industry experts in the marketing area and form a panel to provide marketing services to needy entrepreneurs. Provide a clear idea about different marketing aspects, including the need for the marketing plan, segmentation, positioning or branding, and targeting. Models like Kudumbashree Amrutham Nutrimix units – a joint venture of Kudumbashree with the ICDS department – may be considered for enterprise promotion for meeting demand from government schemes and projects. Possibility of establishing portals like GeM and other e-commerce platforms shall also be sought for marketing linkages. Identification of distributors is also essential. The LSGIs shall also take a policy decision to promote locally made goods in the local market. They can insist the shops to provide some space for the locally made products. The LSGIs shall conduct weekly or monthly trade fairs jointly with organizations like Kudumbashree to promote these products.
23. **Local eco shops:** An operational plan is to be formulated in each panchayat for marketing quality produce.
24. **Establishment of Common Facility Centres:** The LSGIs shall set up common facility centres like apparel parks, value addition units, and other food, agro or marine products related units. The primary requirements are land, building, machinery, pooling of financial resources, repairs and services, and marketing linkages. The convergence of departmental schemes is crucial in setting up these centres. Therefore, the LSGIs can coordinate these activities in a better way.
25. **Infrastructure creation for enterprise development at LSGD level:** Common Infrastructure facilities for Micro enterprises to be created at the block level. To promote Micro units at the Panchayath level, it is recommended that Micro Enterprise Zones (MEZ) be created after conducting analysis of the resources and skills available in the areas so that these resources and skills can be utilized by the entrepreneurs who set up their micro enterprises in these Zones. LSGDs with appropriate linkage with other stake holders can help to create Micro Enterprise Zones (MEZ) in the Panchayath / Blocks level under Public or Private Partnership. Under the Micro Enterprise Zones (MEZ) Special focus may be laid for creating plug & play facilities, Common Facility Centres, developed sheds / flatted factories. Earmarking of at least one such zone in each block wherever possible with participation of public & private sector may be considered.

26. Micro Enterprise Development Centres & Rural Incubation Centres may be established in MEZ under Public or Public-Private Partnership (PPP) mode. These Rural Livelihood Nurturing Centres would be providing complete entrepreneurship training with handholding support in setting up and operating units to rural youth and nurture them to set up their own micro & small enterprises. These Centres would also provide an opportunity to rural youth to acquire skills in business operations such as product development, identification of appropriate technology, product quality, preparing project report, accounting, marketing and commercial aspects of business. These Centres can be established within the premises of ME, wherein, low-cost projects with appropriate technologies may be demonstrated in working condition and practical hands-on training may be imparted to produce different products on actual machines and equipment.
27. An audit, including social audit on the investment, uses, and users of the existing infrastructure may be done before indulging in creating new ones.
28. **Resource use planning:** LSGIs need to take over the resource use planning of all Agri and allied sector activities concerning the availability of land/ animals/inputs/human resources under agro-ecological units' perspective.
29. **Convergence possibilities with MGNREGA** in addressing natural resource management to improve productivity in different ecosystems like Homestead/ Commercial. Better coordination would be needed among LSGIs, the MGNREGS technical teams at LSGIs, Block Project Offices, departments, and Kudumbashree Community Development Societies (CDS) for coordination during demand generation, mobilisation, work identification, and budgeting.
30. **Result-based Management** principles and monitoring interventions should be specified before starting any program/project with concrete deliverables and ecological services.
31. **Skilling:** In the present global economy, skilling is more critical in every aspect of economic development. In order to generate more employment and build an ecosystem for entrepreneurial development, there is a need to bridge the academy–industry gap and make industry-ready students. Skills for the success of local enterprises include those associated with the management of planning, operations, maintenance, procurement and marketing, quality, safety, environment, finances, and debt servicing and cash flow. Entrepreneurs can be trained to acquire working knowledge in these areas through a specific program designed and delivered in local languages for that purpose.
32. **Creation of a knowledge-based economy:** The availability of highly skilled or industry-ready students or human resources is becoming a significant issue. Kerala's economy is heading towards a knowledge economy where skilling plays a significant role in transforming youth into a skilled workforce. Entrepreneur development also requires proper innovation skills, bringing new products and concepts to the market, improving market efficiency, and creating jobs. For digital empowerment, better skilling is required. The support of technical or industrial giants will also help to provide quality skilling to the educated youth. Provision of better skilling opportunities to the rural

poor is the need of the hour. Now, Kudumbashree Mission has started the formation of auxiliary groups, ie. Group of women in the age group of 18 to 40 in every ward. One of the essential objectives of forming these auxiliary groups is to sensitize them with more employment/ entrepreneurial opportunities. Youth belonging to the most downtrodden sections of the society, SC/ST, may also be equipped to take advantage of the current requirements of the economy. The local bodies may identify training centers and agencies with the digital academy or other related institutions. They can also set apart a project in a convergence model, i.e., with the support of District Panchayath or Block Panchayaths.

33. **Gender Sensitization Campaigns:** There are several success stories of women-led enterprises in India. Internal factors, including the need for achievements, risk-taking, and self-confidence, and external factors, including economic and socio-cultural factors, have a positive and significant influence on the success of women-owned enterprises. Women-led enterprises in rural areas have been known to be resilient during economic shocks in the past. However, what India witnessed in terms of extended-drawn lockdown during the pandemic was unprecedented, and little is known about the impact of complete closure, especially when women are faced with the burden of limited cash reserves at a household and enterprise level.
34. **Encouraging entrepreneurship among women:** A recent survey at the national level has pointed out that, despite several state-run schemes and policies supporting women's entrepreneurship, the uptake of such initiatives is relatively low. Hardly one percent of the women entrepreneurs have availed of any government scheme, primarily because about 11 percent are aware of such programs. The study recommends that the state conducts a meta-analysis to identify their specific needs and design and implement relevant programs, promote products from women entrepreneurs under a familiar brand with tax incentives, impart soft-skills training inclusive of accounting.
35. **Continued workforce participation:** In the case of educated women workforce participation in the labor market, the status of our state is poor despite high social and human development indices. An in-depth analysis of the situation points towards several factors. One of the main reasons for the unemployment among technically/ educated women is social and cultural norms prevailing in the society. In most cases, the decision to participate in the labor market or the nature of participation is highly dictated or mediated by family. This situation has to be changed through gender sensitization at the individual and societal levels. LSG, along with Kudumbashree, shall organize campaigns in this regard. A conscious effort is required to arrange child care/ elderly care responsibilities equally, meeting working women's requirements and equipping them to participate in the labor market with their individual choice.

4.7. Measures proposed to be undertaken for the integration of different tiers of LSGIs.

LSG can implement the following approaches to ensure effective involvement of line departments in the local planning process, especially in productive sectors.

A. Planning perspective

36. The present system of department-wise schemes and projects may be replaced with **“Resource-based planning.”** Resources include human resources, soil, water, land, biodiversity. The entire development process may be considered as a single operation
Eg. banana-based project

Product examples:

Ripe banana_	Chips	Banana powder	baby food	Nutri mix
Pseudo stem juice	Rhizome pickle	Upperi	Flower (Koomb)	Fine fiber cloth
Handicraft items	leaf			

Agencies to associate and their roles

Department	Services	assistance
Soil Survey & Conservation	Customized fertilizer recommendation	Fertilizer subsidy
Agriculture, SHM	Best input supply, Crop advisories	input subsidy
Irrigation	Water availability	
Soil Conservation, Rural Development	Livelihood support under Watershed projects	Natural resource management
VFPCK / HortiCorp	Collection, Grading, cold storage Marketing / Export,	Support price etc.
Industries dept / MSME	Processing	Support for Setting up of Units
KAU, Civil Supplies	Technical Support Marketing of processed foods	Advisory
APEDA	Export	
Khadi, Hantex, Coir	Fibre-Value addition, Marketing	
Diary department	Organic manure	Input supply
Poultry department	Organic manure	Input supply
Ayush	Nutri mixes	Advisory

37. The GEM-like platform for marketing may be developed with proper customization.
38. **ODOP.** We should have a district-level plan to utilize this centrally assisted project. Now it is unorganized. We have to develop export hubs for ODOP in each district.
39. **PM Formalization of micro-enterprises** - planned efforts are required to utilize this opportunity. 14th 5year plan may propose a strategy to utilize all significant assisted projects fully. All entrepreneurial activities may be coordinated under one umbrella. It is being handled by multiple agencies like MSME, SFAC, industries department, Khadi & Villages Industries, KAU, etc.

4.8. Suggest measures by which LSGIs could act as drivers of development: Provision of infrastructure, power, raw materials for small-scale industries and possibilities of online systems of value chain management and marketing, are to be developed.

40. Mobile application for advance estimation of location-wise crop yield Problem Statement:

- Agro-processing Industry needs a continuous supply of Raw materials.
- Agriculture is seasonal, and products are available in plenty only during the season leading to a market glut
- The current absence of reliable details of the farm’s location, time of planting, the area under crops, time of harvesting, and approximate yield needs to be rectified.

Solution: ICT can be effectively used to address this issue. A very simple GIS & GPS-based mobile application (Farmer side) can guide us to solve this problem. An intuitive dashboard (LSG-side) will offer spatial logistics, such as location-specific, crop-specific comparisons, from which all locations the produces can be pooled. At the time of planting, the farmer may enter a minimum of 4 data in the App

Example

No.	Particulars	Data required	Our inference
1	Crop	Banana	
2	Variety	Nendran	
3	Area / No. of plants	50 cents	5000 Kg (Approx)
4	Date of Planting	01-10-2021	2022 August 1 st week
5	Geo location	System generated	At specific geolocation

The advantages of this approach are as follows: At the time of planting itself, we will know “how much quantity of which products will be available when and where.” Ward wise, panchayat wise, block-wise, and watershed wise live data is to be made available. This will help in deciding the ideal location for the processing unit and infrastructure development. Market linkage, the Export requirement also needs to be planned. Crop scheduling can be done to ensure raw material availability for a more extended duration. For effective cluster development, the location and capacity of cold storage, Godowns, and transport network are decided.

41. Toxic Poisons in food is a major concern, to ensure food security and safety, the following may be considered. LSG shall promote production of fresh food (Vegetable/fruits/Fish/Milk/Meat/Egg) and slowly reduce dependency on other place for food requirement. Availability of food from own local area/panchayat will reduce the need for preservation.

In terms of future development, the following can be achieved:

- Accuracy of yield forecast can be improved by incorporating data on weather, soil, remote sensing outputs, and historical data
- Customized farm-specific guidance like manuring, pest control, Farm news, government schemes can be effectively communicated to the targeted farmer
- Farmer benefits can be linked with this.
- It can be transparent data so that stealing and pilferage of subsidies can be reduced.
- Local pests and diseases can be contained at the point of origin.
- This can be developed into an online system of value chain management and marketing
- Products can be traced with geographic location

4.9. LSGIs can introduce various types of projects which will be helpful for rapid economic development and employment generation.

42. Food processing industry: Two-thirds of the state's export income comes from the Food Processing Industry, and there is further scope for facilitating value addition in spices which can benefit farmers by creating additional employment opportunities.
43. Agriculture, Animal Husbandry, Dairy & Fisheries: there is enormous scope for formulating watershed-based development plans at the LSGI level and ways forward. Watershed development projects include- Centrally aided projects. Unfortunately, in most cases, funds are not utilized thoroughly. We have to ensure that fund utilization is maximum. NABARD loan RIDF – these are liabilities to the state.
44. Many agencies are doing watershed development projects. There is no coordination among the agencies. Further, budgeted works should be completed. In most cases, one watershed will be taken up for development. Before completing the targeted works, it will be stopped because of various reasons. So the expected outcome will not be ensured. Once the project period is over, it will be considered as treated even without achieving the goals. Once we take up a watershed development project, the completion of targeted works must be ensured. Entrepreneurship development may be incorporated as a significant component in the Watershed development projects, which may be developed as self-sufficient units.
45. Integration of agriculture and allied sectors: We have to implement citizen/ farmer-centric projects and schemes instead of department-centric ones. This needs integration of all departments at the LSG level.

4.10. Building linkage between LSGIs and R & D institutions

46. **Transforming technical education:** Skills are essential building blocks for employability. Kerala today needs to transform technical higher education to meet its developmental needs. The existing educational practices need to be transformed to

meet the requirements of development goals of the region, especially at each local self-government level.

47. **Revamping higher education:** Several factors must be considered to revamp higher education to meet our human resource development needs through skilling. First, our state has a large-scale distributed availability of human resources with technical expertise. Second, we have many experts, including engineers and scientists, who can partner with the skilling initiative. Finally, the skilling programs can also be an excellent opportunity to create greater gender equality by ensuring that students are given skilling opportunities irrespective of their gender. Finally, Skilling initiatives are also a route to greater inclusion and participation of rural youth and bridge the urban-rural opportunities divide.
48. **Local developmental initiatives** play a significant role in transforming our state into a knowledge-centered economy. However, to create a knowledge-centered economy, the education system emphasizes the know-how component, the central part of knowledge. Therefore, engineering and polytechnic colleges must become enablers to shift the teaching and training process to a knowledge-centered economy.
49. The details of colleges currently functioning in Kerala are as follows

Engineering Colleges	Polytechnic Colleges
Government sector: 9	Government sector: 45
Aided sector: 3	Aided sector: 6
Government controlled self-financing – 2; Private self-financing - 109	Private self-financing - 45

It is evident from the data that we have many institutions that can create a knowledge-centered economy. Therefore, what is needed is a four-pronged approach to revamping the education system as described in the subsequent paragraphs.

50. Krishi Vigyan Kendras working in all the districts of Kerala can be effectively linked with implementation of selected interventions of LSGs under decentralised planning. On Farm Testing, Front Line Demonstrations and extension activities of KVKs can be linked to the schemes of LSGs depending on the topics. Expertise available in KVKs can also be utilised while formulating the interventions. To make the linkage effective an annual action plan needs to be worked out specifying the thematic areas of functional linkages. Front line extension programmes of ICAR institutes located in Kerala viz., CPCRI, IISR, CTCRI, CIFT, CMFRI can also be linked to LSG interventions effectively if action plans are formulated on a regular basis.

4.11. Technical Education

51. The approach to education needs to shift from offering degrees to building core skills and competencies that can help generate livelihoods, self-employment. The first step in this direction is innovation in curriculum delivery. Next, learning needs to be enhanced through experiences and experimentation beyond classrooms. It is particularly relevant

for strengthening design aspects of engineering learning. Finally, the facilities and infrastructure of several institutions need to be augmented in preparation for a renewed emphasis on research.

52. The curriculum design across programs is to be based on industry demand and requirements. Unfortunately, a siloed approach to curriculum development has been the bane of several universities, and this must change if we are to be teaching skills that are demand and hence capable of getting hired.
53. Higher education must be extended to students in an integrated manner- including classes and lab instructions followed by practical work near students' homes and take-home assignments to internalize better what is learned. In addition, the selection of students must be in from interested students only for engineering courses to improve learning outcomes. Such a comprehensive system will also help reduce gender disparities in the engineering stream.
54. Local self-government institutions can play a crucial role in executing various academic programs with a solid administrative component in learning. LSGIs need to strengthen evening learning centers for adult learning and up-gradation and finishing schools for recent pass-outs to improve employability and make them industry-ready. In addition, faculty interaction and collaborative course development with the development agencies/industry need to be strengthened.

4.12. Research and development

55. A priority area that demands attention is interdisciplinary research facilities across departments and institutions. Transformation of existing systems to become knowledge-driven operational units (based on data) creates data centers where the data on various public systems are to be made available to researchers to add more value to their research exercises. Furthermore, there is a pressing need to set up centers of excellence in data construction and value engineering. In addition, we need to strengthening internal digital innovation capabilities and enabling institutions to achieve digital maturity. Finally, for productivity improvements, research in sustainability is crucial and timely.
56. The need of the hour is to increase the Codification of Knowledge and Development of New Technologies. The above can be an opportunity to involve students in real-time projects of local self-government/public sector agencies, providing financial support to students.

4.13. Information and Incubation

57. Data centers for decision making: Engineering institutions need to emerge as centers that generate employers rather than employees, especially at the regional level. There is a need to have an integrated Data Centre where the details on available knowledge components are available locally, those getting added from those returning from outside the state, and new knowledge getting generated. In addition, the generated data shall contribute significantly to government decision-making on a real-time basis.
58. Experimental firms for endogenous and systematic investments in new knowledge/ ideas in diffusing technologies should be encouraged and supported. In addition,

engineering colleges need to strengthen their association with the Kerala Institute of Entrepreneurship Development and local self-government offices. Organizations with better proximity to knowledge sources have shown better success in disseminating knowledge and creating an entrepreneurship ecosystem. Furthermore, more opportunities are to be created for industry relocation to campuses, cluster start-ups – for synergized action, and co-startups with the working professionals, and finally, opportunities for upskilling and reskilling need to be bolstered for lifelong learning.

In conclusion, LSGIs can play a leading role in resurrecting the state economy after the pandemic. Future development towards further value addition, employment generation in the productive sector, and linkage with R&D institutions will help LSGIs establish themselves as a vital link in the state's expansion and diversification of production and manufacturing.

CHAPTER 5 GROWING FROM GRASSROOTS

Poverty is a multidimensional concept. It reflects the lack of income and unavailability of productive resources for sustainable livelihoods, prevalence of hunger and malnutrition, poor access to other basic services, social discrimination and exclusion, and the absence of active participation in decision making. Among the Indian states, Kerala made a remarkable improvement in arresting poverty. The prevalence of poverty in Kerala (11.3%) is much lower than the national average (29.5%) in 2012 (Government of Kerala, 2021). According to Sustainable Development Goal Index for 2020-21, Kerala rank first among Indian states with a score of 75 (Government of India, 2021). This is the outcome of several progressive steps initiated by the state government in the State. There is no doubt that the decentralized planning process initiated in the State in 1997 has a significant role in minimizing extreme poverty. However, Schedule Cast, Schedule Tribes, fisherfolk, potters, and traditional artisans in the State are still vulnerable to extreme poverty and facing livelihood issues (Government of Kerala, 2021).

Production and income-generating programs mostly come under effective sector interventions of LSGIs in Kerala. The allocation for productive sector projects has increased from 8.83% to 12.64% of total plan funds under LSGIs between 2012-13 and 2019-20. However, the plan expenditure under LSGIs in 2019-20 constitutes only 56% of the total plan allocation. Disaggregate data on plan fund utilization under productive sector among LSGIs is given in table 5.1. Essential observations from table 5.1 are: 1) About 40% of productive sector funds are utilized to formulate projects for agriculture development. However, it shows a declining trend in 2018-19 and 2019-20. 2) Around 15% of productive sector fund is used to implement irrigation, social-water conservation and afforestation. 3) Significant increase in fund utilization under dairy development projects has been reported over the years. 4) Notable decline is visible over the years in the relative share of funds utilized for industry and fisheries sector projects. The detailed analysis of the declining trend in the relative share of the industrial subsector under LSGIs gives the following observations. Firstly, the relative share for the industrial sector recorded a sharp decline of 3.89% from 9.62% among Grama Panchayats between 2012-13 and 2019-20. Secondly, both Block and District Panchayats also reported a declining trend in the relative share for industrial development.

The broad definition for Poverty adopted by United Nations. For more details <https://www.un.org/en/global-issues/ending-poverty>.

Chandigarh (SDG score 79) became top in the Sustainable Development Goal Index for 2020-21 among Union Territories followed by Delhi (SDG score 68).

Table 5.1. Subsector wise utilization of plan funds under production sector among LSGIs (in % Share)

Year	Agriculture	Irrigation	Soil-Water, Environment, afforestation	Animal Husbandry	Dairy development	Fisheries	Industry
2012-13	39.97	9.61	4.56	24.66	4.8	2.23	13.4
2013-14	42.64	8.39	3.84	24.58	5.87	3.03	10.49
2014-15	42.5	8.51	3.8	22.96	6.77	1.84	12.21
2015-16	47.04	7.15	4.19	20.4	9.24	1.94	8.95
2016-17	44.15	5.33	1.8	24.79	11.93	1.77	7.16
2017-18	42.27	8.39	3.78	21.19	12.91	1.27	7.78
2018-19	38.9	8.56	4.91	20.75	13.7	1.86	9.51
2019-20	36.78	9.15	4.73	23.02	16.36	1.37	7.24

Source: Government of Kerala 2021; 2019; 2017; 2015; 2014

The State is going through a critical condition that emerged due to Covid Pandemic. Different segments of society facing challenges in their livelihood. Therefore, intervention under the productive sector will be vital in addressing extreme poverty and livelihood security in Kerala.

Challenges of Eliminating Poverty and Livelihood Interventions through Decentralised Planning in Kerala during 13th Plan

1. LSGIs in Kerala were assigned with an uphill task of rescue operations and subsequent rebuild process due to flood in 2018 and provide essential services at the local level during the spread of Covid-19. Therefore, the performance of LSGIs in addressing the enhancement of production and livelihood programs is met with several challenges.
2. There is an inadequate linkage between projects formulated by LSGIs to enhance livelihood projects and schemes for livelihood implemented by different departments under State and Central governments.

14th Planning and the Way Forward

The State has rolled out identification of impoverished households through a participatory and validation process. KILA has already started the training at various levels as an initial step towards the identification process. Since the methodology involves community and participatory tools, extensive training and awareness creation are needed to identify. The identification process is complex since we look at voiceless and most vulnerable sections of society with low social capital. The current approach is to make a preliminary listing of the potential households through Focus Group Discussions among community cross-sections

such as people's representatives, volunteers, and Asha/Anganwadi. This will be followed by a household-level information gathering process about the potential households. This phase of the identification process will be coordinated through a centralized information management system with a publicly accessible dashboard for monitoring and ensuring transparency.

Phase two of the program is intervention focused where micro plans at LSGI levels will be rolled out for the identified household. Based on the information collected from phase 1, households can be grouped based on the levels and magnitudes of the deprivation parameters, which will be helpful for focused intervention through micro plans. Additional information will also be collected about these households if needed. The convergence potential of existing schemes can be utilized in the formulation of micro plans. For example, identified sections of households that require support due to old age or, if differently-abled, can be linked to the vathilpadi sevanam scheme and padheyam scheme. The other category of identified households might include cases that need support on livelihood and income generation activity which is discussed as the next point.

Providing livelihood support to the needy has been the mandate of the governments at different levels. However, the complex interplay of market forces, exogenous factors, and information asymmetry have reduced the propensity for the success of such programs. Therefore, in order to increase the efficiency of programs few focused interventions to strengthen the institutional mechanism might be taken up, which are suggested as follows:

- a) Capacity building, skilling, and empowering vulnerable sections- Utilizing existing programs such as KASE, KDISC, SANKALP, PMKVY, KVKs to build life skills and to foster innovations in the LSGI.
- b) Establishing institutional linkages by promoting "LSDI linkage", such that every LSGI can be linked to an academic or research institution in the region based on the potential to provide hands-on support for skilling and sustainable livelihood strategies.
- c) "One district one product"- Rather than focusing on multiple and scattered MSMEs, coupling extreme poor household's livelihood support system/programs to One district one product has the potential to reduce the chances of early failures, which might be causing substantial livelihood insecurity in case of the most vulnerable sections of the society. Agro-ecological Zones-based farming systems promoted by KAU are an example for focusing on ecological sustainability and assuring income security from farming.
- d) Incubation centers- District-level incubation centers of for startups and innovations can reduce the chances of early failure.

Strengthening the livelihood of Schedule Cast and Scheduled Tribe sustainably is vital in addressing the poverty in Kerala. It necessitates the intervention of LSGIs in harnessing their local economic activities with a special focus on sustainable income-generating schemes for the SC and ST populations. Therefore, a certain share of Scheduled Cast Sub Plan and Tribal Sub Plan should be allotted to formulate viable and sustainable income-generating projects for the SC and ST population. Furthermore, efforts should be made to incorporate

linkage between income-generating activities of Central and State Governments for SC and ST populations with productive sector intervention through SC, and Tribal Sub Plans under LSGIs.

Kerala has about 10.44 lakh fisherfolk population. They are identified as one of the deprived sections in the State. Out of the total fisherfolk of the State, 77% is in the marine sector and the remaining in the inland sector. Kerala has 222 marine and 113 inland fishing villages. Though the fishermen constitute 3.13% of the total population of Kerala, the sector contributes only 0.82% to the state Gross State Value Added (in constant price) (Government of Kerala, 2020). The per capita fish production of fishermen in Kerala has declined from 717 kg to 616 kg from 2002 to 2017.

Moreover, fishermen estimated per capita income was 45% of the State's per capita income in 2005, which has declined to 33% in 2018 (Louis et al., 2020). The available data confirm the vulnerability of fisherfolk in Kerala. It is high time to formulate sustainable income-generating schemes for fisherfolk. LSGIs in respective areas should take up projects for the value addition of fish products. Further, it is also important to have a proper mechanism to integrate development programs of the Fisheries Department and schemes of the Central government with development activities formulated by LSGIs for fisherfolks.

There should be steps to strengthen the role of district-level Poverty Alleviation Units (PAU) to link the livelihood initiatives of LSGIs and programs of the Rural Department. In addition, potentials of MGNREGA, NRLM, and other livelihood programs of Central and State governments should be incorporated while formulating livelihood projects at the LSGIs level.

Potters and traditional artisans are yet another vulnerable sections in the State to extreme poverty. They are facing two types of challenges in their livelihood. Firstly, in the production process, they might face problems in mobilizing capital for modernization and lack of skill upgradation. Secondly, they are facing challenges in the marketing of the products. LSGIs have to take the facilitator role to address the issues. Local bodies have to arrange working capital to modernize such traditional units and provide skill upgradation training. Formulate an effective marketing strategy, including mobile marketing units for products produced by potters and artisans.

Grama Panchayats need to be empowered to take the lead in local economic development and the setting of livelihood programs. At present, there is no measurable performance indicator like GDP for Grama Panchayats and urban local bodies. Very few Grama Panchayats conducted studies on measuring the performances of their productive sector interventions at the beginning of decentralized planning in Kerala. It is important to have a mechanism to measure the performance of Grama Panchayats and Urban local bodies in their production and income-generating activities.

LSGIs have to take up local need-based development interventions, especially in production and employment generation. We have abundant untapped resources at the local level to enhance production and livelihood security. Therefore, local bodies in Kerala should adopt

a household-based decentralized production strategy to enhance industrial production and employment generation. However, procurement of raw materials and marketing of products should be performed in a centralized manner. LSGIs should facilitate training and skill development. It is ideal to have 'Village Malls' to market products produced under the decentralized production system. LSGIs should ensure that productions under the decentralized production system will be eco-friendly.

It is ideal to constitute a special task force at the Grama Panchayath level to eliminate extreme poverty. However, it should be implemented in a mission mode.

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CHAPTER 6

ACHIEVING SUSTAINABLE AND EQUITABLE GROWTH FOR ALL

6.1 Introduction

The Sustainable Development Goals (SDGs) were shared goals adopted by the International Community in 2015, which provides a blueprint for peace and prosperity for people and the planet into the future. A set of 17 goals to be achieved by 2030, they recognize that ending poverty and other deprivations need to be concurrent with strategies to improve health and education, reduce inequality and which at the same time spur economic growth—all this while dealing effectively with climate change and protecting our natural resources. The most important aspect of the SDGs is their interdependent nature, and therefore it is impractical to see any of the SDGs in isolation. Steps taken towards achieving one will, in turn, affect other goals as well. These interlinkages are critical as far as parts of the developing world are concerned.

This chapter is concerned with the integration of Sustainable Development Goals with the planning process in Kerala, and among them, precisely, gender issues as well as special groups. This chapter is divided into four parts: the first part deals with how the SDGs can be integrated with the planning process in Kerala, the second part deals specifically with gender concerns against the context of the SDGs, the third part deals with other special groups and the fourth deals with disaster resilience as an overarching theme which needs to be integrated into the overall planning process.

6.2 Operationalizing the SDGs at the local level

While goals, indicators, and targets of SDGs are set at the global, national, and state levels, many of them have to be achieved through actions at the local level. In Kerala, the People's Plan Campaign launched 25 years back has provided the opportunity for planning at the local level through a participatory process. In addition, many responsibilities bestowed upon the local self-governments by the central and state governments are implemented through this decentralized planning system by the local self-government. All these together can take us towards achieving many SDGs at the local level.

Our efforts in localizing SDGs have to be in alignment with the decentralized planning process. For this, all the steps and structures for the planning have to be developed so that SDGs, indicators, and targets are considered while making decisions. A vital step would be to introduce results-based planning leading to SDGs in the various thematic working groups, Standing committees, and Planning Committee. The guidelines for the Fourteenth Five Year plan should include this aspect. It can start with the Status Report and Development report template where SDGs, indicators, and targets have to be incorporated.

Localizing SDGs means considering sub-national contexts in achieving the 2030 Agenda, from setting goals and targets to determining the means of implementation and using indicators to measure and monitor progress. It also puts the territories and their peoples' priorities, needs, and resources at the center of sustainable development. Thus, there should be sustained exchanges between the global, national, and local facets. In the past, localization

was mainly meant to implement goals at the local level, by sub-national actors, in particular by local and state governments. However, this concept has evolved. As a result, all of the SDGs have targets directly related to the responsibilities of local and state governments. That is why the achievement of the SDGs depends, more than ever, on the ability of local and state governments to promote integrated, inclusive, and sustainable development.

Localizing the SDGs is a platform that supports the on-the-ground delivery of the SDGs at a local level. It is a convergence point between local and state governments and their associations and other local actors, national governments, businesses, community-based organizations, and many others. Localizing SDGs supports local self-governments in collaboratively incubating and sharing solutions, unlocking bottlenecks, and implementing strategies that will become helpful in advancing the SDGs at the local level. People's Plan Campaign provides this platform, the potentials of which has to be understood by all actors.

Through the fourteenth five-year plan guidelines, a core feature in this platform for localizing SDGs should contain a range of concrete, practical and adaptable mechanisms and instruments that support the development, implementation, monitoring, and review of locally appropriate SDG actions. Intending to provide a one-stop-shop on SDG localization resources and tools for local self-governments, this combines the localization of SDGs by 2030.

The Kerala Institute of Local Administration is developing an SDG Training tool kit, a searchable database from the local level to the state level. This supports the efforts to improve the quality, reliability, availability, and comparability of data, which helps all the stakeholders to create their data in their respective areas. This ultimately helps the local self-government plan, review, monitor, analyze, and modify their status with respect to each indicator and helps identify the gaps in each sector and plan accordingly. This also envisages the individual local self-governments via this platform for localizing SDGs; experiences of the LSGs can be shared. This will help them view new solutions, tools, and guides to support SDG localization at the grassroots level. This methodology can be included in the Plan guidelines.

The 14th plan guidelines should aim to raise awareness on SDGs among local self-governments and people. It should aim to improve their knowledge of the 2030 Agenda, familiarize them with the implications, opportunities, and challenges in localizing it, and urge local self-governments to realize their crucial role fully. As a guideline for development planning, it also seeks to create an enabling environment for the localization process, support local ownership, and ensure the SDGs' integration in local self-governments' strategies and plans. Our purpose is to better integrate various actors and activities across the immensely dynamic social, regional, political, and economic landscapes of territories.

6.3 Mainstreaming gender in development interventions

While considering developmental interventions, they should all be performed with gender concerns in mind. Currently, there is a tendency to limit them to just gender-related projects and programs. This needs to be rectified. Presently the Working Group dealing with women's issues in the local bodies are Women Development. It has to be upgraded to

Gender and Development to deal with all genders (Women, Men, and Transgender/Intersex persons). LGBTIQ+ issues should also be discussed there. There are many Central, State Government programs and schemes which incorporate Gender Equity measures. There are projects which are proposed by the local bodies as well and often for the same purpose. It is the responsibility of local bodies to converge all these together and make them available to the beneficiaries.

As a state, Kerala is far better in some of the developmental indices against women, but it is known that even now, we are behind some states of other developed countries in Gender Development Indices like property rights, political representation, work participation, etc. So this needs to be studied at the local level, especially the strategical needs and also the actual needs of our women and projects should be framed based upon that.

Even today, in Kerala, women don't get equal wage to men in most sectors of employment. And also, women work specifically in some specific cadres due to gender division of labour. Women are very low paid even in entrepreneurship/ self-employed programs under Kudumbashree, and they did not gain actual wages. It is high time to address these issues.

Also, all government benefits are targeted to "families." Family to be redefined here, which is not only having a father, mother, and children. It may be single living, maybe siblings only etc.

Gender sensitization programs are conducted at different levels. They have to be continued and extended to all levels. Along with that, our curriculum and the whole educational processes have to be made gender-sensitive. A gender Audit of textbooks should be conducted to rectify these issues.

Gender disaggregated data should be collected at the local level in all sectors. An intersectional approach should be there in our plans and programs.

6.4 Designing interventions for special groups

Kerala has become the land of greying population among the Indian States due to the demographic transition and migration. Kerala has the highest sex ratio and life expectancy, implying that most of the elderly are women. Though we say that women of Kerala are at the top concerning gender development, it has little appeal to women's minds because they are double burdened at the fag end of life, mainly because of their high economic dependency and life expectancy. They are the most vulnerable, left with little or no access to resources and support mechanisms, even their children. This is mainly because of breadwinner roles for men and concentration of income and wealth with the males, a legacy of the patriarchy. The feminization of poverty is also to be addressed in this context. LSGs are providing Vayo Clubs for elderly recreation. Nevertheless, it seems that livelihood initiatives are even more critical for the elderly.

Economically independent elderly has to be a fundamental goal. This can be a route to address the 'ultra-poor. Initiatives of productive engagement of physically able and old women either as owner/ manager or as a worker through micro and rural enterprises like "AmmaThiri" or in Kudumbasree units and agro-based industries can be explored.

The second childhood has to be managed effectively. For this, elderly care and provisioning of basic needs seem vital. Kerala is known for its expertise in nursing care and has been a leading exporter of health services to the developed countries, characterized by the elderly population. Through the LSGs, our own health personnel can be channelized and a system of health care has to be designed for provisioning of health care (except in cases of those who are bedridden and with other severe health issues for which the approach has to be different) and basic needs to the elderly at their doorsteps regularly. This has to be seen in the context of most of the elderly left behind alone on account of migration, and hence, to be the state's responsibility.

Also, this offers an enormous possibility for economic growth through the service sector, especially for women. Our experience in this Covid times with ASHA workers can form a preliminary route for functioning this elderly care mechanism. This initiative by the LSG's can directly intervene with the sustenance and quality of lives of the old and women in particular and can produce quantitative outcomes in terms of reductions in death rates and improvements in life expectancy- a step to further the Kerala model of development.

Kerala is facing the closing down of uneconomic schools. The infrastructure of the closed schools can be productively used under the initiative of the LSGs to run daycare centers for the elderly and physically and mentally challenged persons. This can be a great support system for women who wish to work alongside and apart from their caregiving roles. In addition, the LSGs can use the experience and expertise of the elderly to devise plans for Sustainable Goals like the creation of Miyawaki forests in the unused and wastelands, planting of trees and protection of trees, collection and treatment of waste, identification of those in extreme hunger and provision of food through community initiatives (like community Kitchen) and the like and initiate steps for implementation of programs for SDGs at the grass-root level. Women (including the elderly) and children are key to these changes as evidenced in history and can play vital roles in these efforts.

6.5 Building Disaster Risk Resilience

With the objective of better equipping local self-governments (LSGs) to deal effectively with disasters, as well as to fortify their positions as grassroots level actors in Disaster Risk Reduction as well as disaster response, the State of Kerala introduced the local level Disaster Management Plans (LSG DMPs) to be made by all the LSGs vide G.O (Ms.) No. 156/2019/LSGD dated 04/12/2019. A template was designed and issued in the form of a government order G.O (Ms.) No. 14/2020/LSGD dated 14/01/2020. The LSGs prepared the first round of LSG DMPs for the plan period 2020-21. It was seen that in the first round, at least 40% of the work as per the template provided was incomplete and there is more work to be done for gaining a proper disaster risk reduction perspective.

Presently, the LSG DMPs have become a template-centric exercise where the LSGs have focused on filling the template issued by the Local Self Government Department. It needs to be transformed into an organic process where the template and the subsequent plan are treated as a dynamic instrument that has to be oriented towards the specific needs of the particular LSG. This approach needs to be changed through proper capacity building and necessary hand-holding.

There needs to be support provided for engaging technical educational institutes and Universities to supplement the efforts of LSGs through proper technical support.

A needs-based assessment needs to be conducted of the capacities of the various LSG staff to see whether organizational changes and alterations need to be made to equip them to better deal with both natural and manmade disasters.

Climate Change and Disaster Risk Reduction projects should not be in isolation, and there should be an attempt for disaster proofing all projects in the Annual Plan. A set of general guidelines to be followed may be evolved for this. The LSGs need to be made aware and placed in a position to follow existing guidelines and regulations relevant for DRR while planning their activities. Proper studies need to be initiated to find roadblocks in achieving this objective.

Efforts should be made to supplement the Planning Process of the LSGs by increasing their roles and powers as far as regulating powers are concerned, primarily through legal mechanisms.

Proper Monitoring and Evaluation framework also has to be evolved for the projects to ensure a proper disaster risk reduction approach.

Presently Disaster management remains primarily focused on disaster response focusing on activities by the Revenue Department. Post the August 2018 floods, the role of LSGs as the primary defendants on the ground has been acknowledged. The LSG DM Plans were initiated as a step towards this; however, there is still more scope for integrating the LSG's activities post-disaster with the work of the Revenue Department officials and the uniformed forces. The LSG Disaster Management Committee needs to be given proper training and capacity to handle crises and work with the uniformed forces.

Clear lines of communication regarding early warning systems need to be evolved. In addition, an Incident Response System may have to be effected with proper integration with the Revenue Department.

Mechanisms such as Emergency Response Teams that work with the LSGs at the time of disasters should showcase continuity and should be capacitated to work with the LSGs with minimal supervision at the time of disaster. Standard practices should be evolved, which can be followed by the LSGs during a disaster.

CHAPTER 7

REVAMPING INFRASTRUCTURE AND CIVIC AMENITIES

Context and Role in the State Development

1. Kerala's development experience with local government institutions (LGIs) is unique in three aspects – financial devolution, plan formulation and implementation, and extent of people's participation. The system of decentralised planning in the State serves as a model for other States in India. Kerala is into its silver jubilee year of the people's campaign for participatory planning. The first people's plan campaign in 1996 broadened and deepened the process of democratic decentralisation in the State. The 13th Five-Year Plan coincided with the second people's plan campaign. The proposed 14th Five-Year Plan will be extent the second people's plan campaign to be strengthen the process and broadened the scope of decentralisation in the State. Kerala's model of decentralised planning is widely recognised as the most enduring and one of the most successful experiments of its kind in the world. There are multiple reasons for the success of the Kerala experiment including the legacy of the larger democratic movement in the State that the people's campaign had sought to take forward.
2. The main important goals of the people's plan are development of local infrastructure, enhancing efficiency in service delivery, improving local production and distribution, ensuring environmental harmony, extending social justice, and augmenting welfare. But, an over-determining goal, which complemented and enhanced every other objective, has been that of deepening democracy. People's planning extended by leaps and bounds the scope for collective action by the people. It is this extensive scope for citizen's participation and collective action, which worked as an inbuilt mechanism of self-learning and rectification from within, that made the Kerala experiment successful as well as enduring.
3. People's planning generates informed deliberations involving people at all levels, such as households, neighbourhoods, gramasabhas, development seminars, working groups, elected councils, District Planning Committees (DPCs), beneficiary groups, mass organisations, NGOs, and media. Government of Kerala was appointed various commissions to decentralised governance in Kerala. The continuous process of learning from the experience of doing, especially self-critiquing, helped in correcting mistakes and strengthening the virtues. The preparation of the 14th Five-Year Plan will be used as an opportunity to assimilate the lessons of the 25 years of democratic decentralisation experience of Kerala and to propose new development agenda for local governance.

Current Status and Areas that need special attention

4. The whole infrastructure of the state is broadly categorised into two; Physical infrastructure and social infrastructure. In terms of physical infrastructure, Kerala is a state blessed with five options for transport – roads, railways, airways, ports and inland waterways. However, the road transport network carries the burden of moving passengers and freight. Although Kerala has one of the longest road networks in India, most of it

is due to the rural road network, the primary and secondary road network which carries majority of the traffic is significantly narrow and land acquisition has hampered its growth. The main achievements of the 13th Five Year Plan in the field of road length, the total road length in Kerala increased from 2,18,942.426 km to 3,31,904.2 km from 2016-17 to 2019-20.

5. The 13th Five Year Plan has formulated major policy initiatives in the field of Physical infrastructure. The 13th plan has formulated a draft policy for electric vehicles. The policy is to promote electric mobility for commercial use by providing attractive incentives, subsidies for the replacement for fossil fuel vehicles, procurement of electric vehicles, establishing charging infrastructure, retro fitment, promotional programmes such as shared electric and connected mobility and other innovative programmes. The vision is to embrace electric mobility as a tool to promote shared mobility and clean transportation and ensure environmental sustainability, pollution reduction, energy efficiency and conservation and to create an ecosystem for manufacturing electric vehicle components in Kerala.
6. Kerala's power sector has undergone through an evolutionary trajectory, not so much in its actual material nature as in the perceptions surrounding it. Renewable energy, mainly solar and wind power generation, now occupies centre-stage in the development of power generation. Yet the enthusiasm for renewables, especially because of the rapidly decreasing costs of generation, often ignores the costs that will be incurred in building up the infrastructure required for significantly high-levels of renewables in the electricity generation mix.
7. The other dimension of Kerala's power story is the rapid changes in the governance, regulation, and institutional structure of the power sector at the national-level. Successive Governments at the Centre, irrespective of political affiliation, have insisted on privatisation, and have relentlessly required States to follow suit, while Central and State regulatory authorities have driven the process on their part as well. The result is a skewed system where the social costs of power supply are borne by a large public sector on the distribution side, while the profitable parts of the power generation sector has a substantial private presence. At the same time, without the economic fundamentals being sound and as the public distribution companies increasingly come under stress, the power generation sector is also under financial stress.
8. Government of Kerala is committed to maintaining the dominant position of the public sector in the State's power sector. The KSEB is unarguably one of India's best performing public utilities, on all aspects of its functioning including technical, customer service and financial parameters. In the series of disasters that have affected the State over the last three years, including two major episodes of flood and landslides and the Covid-19 pandemic, the KSEB has provided outstanding service to the people of the State in all respects. This includes maintaining the highest possible-level of service, undertaking repairs and restoring damage speedily, and providing tariff and related

concessions across many different sectors of the economy and the domestic sector, especially during the ongoing Covid-19 pandemic.

9. Kerala is the first State in the country to attain 100 per cent household electrification. Electricity is being provided throughout the State 24x7x365 without any major or routine recourse to power cuts or load shedding. Having achieved universal electrification, the State is now concentrating on the moderation of the grid to meet the ever-increasing customer aspirations concerning reliability, to attain the lowest-level of system losses, to meet the requirements thrown up by decentralised renewable generation, and to ensure the safety of installations.
10. The State has also embarked upon a mission to build a state-of-the-art transmission network by constructing new lines, substations, and modernising existing systems, to be ready for taking in the projected boom in e-mobility. The State has kicked off the ambitious “Oorja Kerala Mission” which is a bouquet of five inter-related projects – Dyuthi 2021, Soura, Filament free Kerala, Transgrid 2.0, and e-safe – woven together as a combination of priorities set by the above aspects. The underlying spirit of all the projects envisaged in the power sector of the State is to contain the challenges of climate change and to reduce the carbon footprint of the power sector.
11. Generation of Solar energy has tremendous scope in Kerala. The geographical location of the state stands to its benefit for generating solar energy. The reason being Kerala is a tropical area and it receives solar radiation almost throughout the year, which amount to 3000 hours of sunshine. This is equal to more than 5000 trillion kwh. Local government will take initiative to install rooftop solar expansion is a part of a plan to generate a quarter of the state’s power from the sun with in the period of 14th Five Year Plan.
12. Despite the long-standing public enthusiasm for renewables, Kerala’s record has been fairly limited in comparison to other States in the country. The reasons are not far to seek. Given the experience, reach, and sheer scale of Kerala’s public sector utility, the Kerala State Electricity Board (KSEB), and given the structure of Kerala’s economy and industrial sector, the expertise and capacities of KSEB are critical to any kind of technological push in the power sector, including renewables. Especially in the era of renewables, newer forms beyond solar and wind need to be considered and evaluated for development and deployment in the State. The participation of the State’s Science and Technology as well the technological higher education institutions in such efforts would be mutually beneficial to both these institutions as well as the power sector itself.
13. Government of India already started their flagship programme of “Jal Jeevan Mission”, is aims to provide safe and adequate drinking eater through individual household tap connections by 2024 to all households in rural India. Kerala Water Authority (KWA) acts as a nodal agency for implementing Jal Jeevan Mission in Kerala. To enlarge the programme all over the Kerala within the stipulated time, local governments will make a good job for providing safe drinking water facilities at the local level.

14. Social infrastructure is also important for the development of local Economy. Kerala is caught in a low productivity trap of GSDP and employment. There is relatively high personal and regional inequality in Kerala. The state is facing an aging population; rapidly increasing urbanisation and increasing pressures in natural resources especially land and water. In the face of the grim business scenario, there is need to improve the quality of growth in terms of productive capacity, structural transformation and the quality of human development. The strategic planning is an essential first step to strengthen the social infrastructure in Kerala.
15. The human and social development achievements did not get translated in to actual productive growth. Creation of productive capacities requires investment in productive assets. People in Kerala, irrespective of political leanings, favour public over private investment. Kerala will be a prosperous, knowledge driven, competitive and eco-efficient economy with a spirit of entrepreneurship, innovation, social inclusion and tolerance and diversity which ensures with high living standards for all and cleaner, safer and healthier environment for both present and future generations.

Improving the Usefulness and Effective Utilization of Civic Amenities

16. Good quality infrastructure is a key ingredient for sustainable development. Kerala will need efficient transport, water and sanitation, energy and rural- urban development if it is to proper, attractive private investment and provide a decent standard of living of the people. Economic prosperity is necessary element in providing means to meet basic needs, to generate employment and reduce poverty. It will be driven by knowledge and entrepreneurship with a new focus on the role of information technology, innovations and learning in economic performance.
17. Review the existing road transport requirements and prepare long term development plans. The main strategies for 14th plan will be adopt people friendly regulations for safe, clean and efficient transport system all over the Kerala. Road investment focusing on reduction in travel time, accidents, travel and freight charges and vehicle maintenance costs.
18. Kerala is the first state in India to prepare an e-mobility policy. KSEB planned to set up charging stations covering all districts of the state for ensuring state-wide charging facility for e-vehicles. Local governments especially Municipalities and Corporation will take initiative for installing charging stations with the help of KSEB.
19. Kerala Fibre Optic Network (K-FON) is a flagship programme of Government of Kerala, is to build a wide area network across the state to provide a cost-effective and high-speed internet connection to 30,000 Government offices and educational institutions, and free internet access to 20 lakh BPL families. Implementation and maintenance of the network will be carried out by a special purpose vehicle (SPV) with equity partnership of KSEBL, Kerala State Information Technology Infrastructure Limited (KSITIL), and the State Government. The local self-governments will play a pivotal role to play enlarging the internet connectivity to the weaker sections of the society in the State.

20. A knowledge economy is an economy where knowledge is acquired, created, disseminated and used effectively to enhance economic development. In a knowledge economy, “knowledge capital” lies at the core of economic growth. It contributes to growth not only directly but also indirectly by augmenting the existing physical capital and labour as factors of production. The knowledge economy will require an increase in the quantity and quality of the pool of knowledge available for economic production in any country, a successful transition to the knowledge economy often includes four elements: long term investments in education, the development of innovation capability, the modernisation of the information infrastructure and the creation of a favourable economic environment. Create a knowledge infrastructure as the key basis of the economic development of Kerala at the local level.
21. Each district will have a small hub in specialised knowledge and will be connected with the proposed global cities with the assistance of urban local governments. The knowledge clusters will be based on the specialised knowledge that is the competitive strength of that area. The similar exercises will be done to identify the best institutions in educational and research institutions in Kerala. The objective will be to promote the host districts as centres of excellence in the respective branch of knowledge.
22. During the Covid-19 pandemic, local governments need to intervene in issues of the digital divide among school education. Local governments need to take some steps to ensure the development of infrastructure in the school education sector and to enhance quality education through language skills, computational skills and rational thinking skills.
23. Rural libraries must be revived to develop a new knowledge culture in collaboration with the library council. At the same time, the local economy integrates with the global economy. All local governments need to implement the innovative concept of the “Career Digital Library”. Career digital library will provide career orientation and skill training for the young population. In addition, local governments can set up labs for soft skills, computational skills and skill-based training at the local level. It will create a new path towards a knowledge economy.
24. Mainstreaming of environment into economic growth will result into a shift in the economy to clean technology paradigm to ensure sustainability of growth. Clean production is a strategy that protects environment by reducing waste at source and reducing the use of raw materials as a more sustainable practice for the limited natural resources; and also encourage the use of environment friendly technologies to promote low-pollution, energy and resource efficient production methods that would lead to greener development.
25. Sustainable production must also be matched by sustainable consumption patterns. The 14th five-year plan will focus on responsible investment and responsible industry. Responsible investment is an approach to investment that explicitly acknowledges the

relevance to the investors of environmental, social and governance factors, and of long-term health and stability of the market as a whole.

26. Extensive and efficient infrastructure is critical for ensuring the effective functioning of the economy. Good governance is a prerequisite for sustainability. In a general good governance is understood to consist of openness and participation, accountability, effective coherence, efficiency and regulated flexibility.

CHAPTER 8

GUIDELINES, RULES, FRAMEWORKS, AND PROCESSES

This chapter discusses some of the areas that would require a closer look in order to make development interventions by LSGIs more effective. It considers issues almost in the same sequence as the chapters through which the report has been presented. The suggestions made here may not be conclusive; they are more of observations that came up during the discussions. However, most of these issues could at least be marked as worth further deliberations.

1. A reason behind many of the limitations that the local governments face in addressing some of the pertinent issues through effective project implementation and convergence with line departments had been cited as the current system of dual reporting of the staff of institutions transferred to them. These include Agriculture Office, Veterinary Clinic, Primary Health Centre etc. The staff here draw their salaries from the respective departments and their service matters are handled by the departments.
2. While the staff responsible for the transferred institutions are implementing officers for local government schemes, they have programmes of their departments running in parallel. This leads to conflict of interest in many cases and their primary responsibility ostensibly remains as those entrusted by their respective line department. Changing the status quo here would require political and administrative decisions at the State level.
3. There are cases where a project with similar contents, if not the same content, are implemented by the line department as well as by the local government. Line departments have their projects formulated mostly at the State level, and therefore projects that local governments formulate at the local level cannot be considered at the time of planning. In cases where similar programmes are implemented by both the line department and the local government, people prefer the one with higher entitlements and therefore the other one fails to get implemented. An institutional system with adequate norms at the district level could be thought of in order to avoid such duplication and wastage of resources.
4. Coordination between the three tiers of LSGIs is something that has already been taken care of; however, there are cases where such coordination too fails. The current system of coordination therefore requires a relook. Local governments also suffer from an inability to have any control over projects once they are entrusted as deposit work with agencies. This would require formulation of clear rules and norms for effective implementation.
5. It is proposed that a Block Level Project Coordination Forum may be constituted to ensure convergence between departments and local governments as well as across the three tiers of the local government system.
6. It has been pointed out that in government projects in general and in those implemented by local governments in particular, the emphasis is never on effective monitoring but on audit. Audit serves a purpose but cannot be a substitute for monitoring. There

has to be clear norms and systems for monitoring of projects at the local government level.

7. There is a clearly defined system for innovative projects to be formulated and implemented at the local governments. This provides an opportunity for local governments to involve cooperative institutions such as PACS as well as Non-Governmental Organisations (NGOs) in local development projects. However, very few projects are taken up using the system. This needs to be examined.
8. Service level agreements for departments are necessary in joint implementation of projects. Similarly, systems for ensuring the right commercial contracts are necessary where women groups or other entrepreneur groups take up service projects of large institutions.
9. Lack of adequate documents to prove ownership of land limits several communities from taking up projects with local government support in production sector. A one-time clearance of land documents could be considered for overcoming this limitation. A system for endorsing ad hoc eligibility at the local government level could also be thought of.
10. It has been pointed out that the potential of Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) is not being utilised for natural resource management and also for supporting farming and animal rearing systems. The problem here mostly is about the timing of plan formulations. It is important that projects in natural resource management and livelihoods are planned adequately in advance so that their integration with MGNREGS for leveraging the potential can be used to the full extent.
11. With the emphasis shifting to local economic development with active participation of private entrepreneurs, it is necessary to lay down norms for projects under public private partnership (PPP). District Industries Centres (DICs) should prepare District, Block, and Grama Panchayat level enterprise development plans. Rules should also be developed for micro enterprise zones (MEZ).
12. Rural incubation centres can be set up in PPP mode; clear and transparent processes will have to be developed for these. Norms will also have to be developed for eco-tourism and responsible tourism under PPP. Norms and procedures will have to be developed for common facilities centres too, if the local governments intent to use them through PPP.
13. So far there is no accepted measure of a LSGI's performance in the local economy. With the new focus on local economic development, there is a need to develop a Grama Panchayat level Gross Domestic Product. Such a GP level GDP should be estimated through established procedure and can be used as a measure for economic growth in future.
14. The Working Group at the local governments dealing with the Women Component Plan (WCP) should be reoriented with a larger Gender role ensuring inclusion of transgender and LBTIQA and similar sections.

15. Clear norms with defined indices will have to be developed for identifying the poorest for the proposed intervention to prepare micro plans. In addition to indices, the process of identification should be well defined so that errors are kept at minimum level.
16. Local governments should enunciate a new perspective on energy and environment with a clear shift towards clean energy. There is a need to develop a framework for clean energy which the local governments can adapt to suit the local contexts.

ANNEX - 1

Annex 1 - Working Group on Developmental Interventions of LSGIs

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39	Dr.Sreekumar.T.L	Assistant Director, Decentralised Planning Division	Official

Annex 2 - Terms of Reference

6. To suggest measures by which Local Governments, independently and in coordination with departments, will promote economic growth in Kerala. This includes the enhancement of livelihoods in productive sectors and in income-bearing services.
7. To propose methods by which Local Governments can support industrialisation efforts of the present Government of Kerala.
8. To suggest measures to harvest the power of decentralisation in agricultural growth.
9. To review and, if needed, suggest measures to assist the programme to eliminate extreme poverty in the State.
10. To review special problems, if any, in the field of decentralised planning and suggest measures to address the problems.