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Acknowledgement

The Directorate of Higher Education and Goa Institute of Public Administration & Rural Development would like to thank the Government of Goa, for entrusting us with this opportunity to conduct this study as an extremely important area of economic revival.

This herculean task of undertaking the Study on the Economic Revival plan for Village Panchayats, would not have been possible without the contribution of the Elected Representatives and functionaries of all the 191 Village Panchayats in Goa. We acknowledge their support and the time given by them to provide data.

The study on the Economic Revival of the State of Goa would not have been possible without the support and efforts put in by the Principals and their staff of all the 25 colleges under the Directorate of Higher Education and the staff of GIPARD.

Directorate of Higher Education  
Goa Institute of Public Administration and Rural Development.
Chapter – 1

Introduction.

The COVID-19 has put enormous strain on the economies of the world. The governments all over have been struggling to provide health care to its citizens, but at the same time, there are issues of concerns of livelihood and revival of their respective economies. India is no exception to the situation.

Goa has also been affected by the virus and the Government of Goa initiated steps to undertake a systematic approach to understand the need and areas for economic revival. Hence the Government of Goa entrusted the Directorate of Higher Education (DHE) and Goa Institute of Public Administration & Rural Development (GIPARD) the task of preparing a report for the economic revival for the Panchayats in Goa, in the month of March 2020.

1.1. Objective of the study:

1. To study the socio-economic, institutions, resources, livelihood, aspects of the village panchayats.
2. To analyse the potential for revival of sectors related to agriculture, animal husbandry, fishing, horticulture, tourism, MSME, traditional means of livelihood etc.
3. To study the possibilities of Institutional Strengthening at the village level.
4. To analyze the scope of enhancing revenue for the Panchayats.

1.2. Methodology:

The exhaustive study was conducted through the 25 colleges in Goa. The village panchayats were segregated taluka-wise and each college was assigned a group of 7 – 11 village panchayats.

Primary data. Data from the village panchayats was collected from the Sarpanch and Ward Members through a questionnaire, which was administered through the college
representatives by visiting the respective village panchayats. The data from the Village Panchayat Secretaries was collected through a questionnaire using Google Form. Focussed Group Discussions on thematic / sectoral areas such as agriculture, livelihood, women issues, were conducted with the villagers so seek further insights into the issues and concerns of the village.

**Secondary data:** The colleges were asked to collect additional information by referring to websites of Ministry of Panchayati Raj, Govt. of India, and Mission Antyodaya data; they were requested to analyse the Gram Panchayat Development Plan of each village Panchayat. Upon preparation of the Village Reports, the Core Team compiled the findings which are mentioned in this report.

**1.3. Analysis and Findings:** The colleges were asked to analyse the data using Excel / collate it into a village report consisting of the data captured, and the Focussed Group Discussions. The Institutions were given the freedom to come out with innovative ideas, suggestions for revival of local livelihoods and their economy.

The report prepared by the colleges consists of findings which will help in the formulation of a policy for the revival of the local village level economies and benefit the State as a whole.

**Layout:** The findings of the study are compiled into a report consisting of two volumes. **Volume – 1** consists of the talukawise findings. **Volume – 2** consists of the detailed Village Panchayat Reports.
Chapter - 2

Bardez

Compiled by Dr Smita Shrivastava.

The following findings are of the Village Panchayats of Bardez. This taluka comprises of 33 Panchayats. The findings are compiled from the responses obtained from the Elected Representatives, Panchayats functionaries and the citizens who participated in the focused group discussions.

2.1. Suggestions received through Focus Group Discussions:

Apart from the questionnaire, FGDs were conducted in all the Village Panchayats and the suggestions received from the villagers are compiled for the entire taluka. Wherever there have been specific suggestions pertaining to a village, the same is mentioned in the brackets.

2.1.1. Farmers:

1. State government needs to provide grants, interest free loans, subsidies and other forms of financial assistance. (Nerul, Verla-Canca)
2. Making farming attractive to the youth. There is lack of interest by the youngsters though there is plenty of land is available. (Verla-Canca)
3. SEED banking and distribution of seedlings at affordable and subsidized rates. (Arpora-Nagoa, Calangute, Verla-Canca)
4. Emphasis was on organic farming and need to take up farming that has farm land. (Ucassaim, Verla-Canca)
5. Top priority to the vegetable cultivation to reduce the dependency on neighboring states. (Verla-Canca)
6. Establishment of “FARMERS’ CLUB” whereby farmers can pool their resources, exchange ideas and get valuable information. (Aldona, Assagao, Verla-Canca, Pirna)
7. Community farming should be promoted among the farmers, cultivators and vegetable growers so that benefit of large scale production and reduced cost of production can be occurred. (Parra, Nerul, Aldona, Socorro, Calangute, Aldona)
8. Mushroom cultivation can be encouraged as there is reasonable demand in the market for the same.

9. ‘Agriculture Melas’ can be organised from time to time so that the importance of agriculture for sustenance is highlighted. (Salvador Do-Mundo)

10. Krishi cards to be issued at Panchayat Office (Salvador Do-Mundo)

11. Dairy Farming Panchayat should promote. (Salvador Do-Mundo)

12. Labor and tractor during Lock down. (Arpora-Nagoa)


14. Single window to avail government schemes. (Siolim-Sodiem, Candolim)

15. Training in modern farming techniques. (Siolim-Sodiem)

16. Consumer co-operative society’s for purpose of marketing of Mangoes. (Siolim-Sodiem)

17. Land owned by Communidade. (Candolim)

18. Scarcity of water so, limitation of crop once per year. (Candolim, Calangute)

19. Willing to take up Horticulture, Floriculture (Calangute)

20. No marketing assistance for cash crops. (Ucassaim)


22. Sluice gates are a necessity to get the flooding in control and grow crops again. (Nerul)

23. Need to change farmers’ mind-set.

24. Yogic Farming-Promoting organic farming.

25. Farmer Producer’ Organisation- marketing organisation for buying farmers’ produce.

26. Corona is a blessing in disguise for farming.

27. Encouragement for organic farming through academic institutions (Don Bosco – Sulcorna).

28. Wild animals and cattle menace to farming. (Candolim, Calangute)

29. Sand extraction to be stopped to save the Band of the Chapora river. (Candolim)

30. Spoilage of crops by animals. (Arpora-Nagoa, Siolim-Sidiem Neura)
31. Non receipt of subsidy by the government. (Neura)
32. Fodder cultivation, subsidy and sustainability. (Candolim)
33. Horticulture, Floriculture (Pomburpa-Olaiulim)
34. Contract Farming or Community Framing (Pomburpa-Olaiulim)
35. Straw generated from paddy fields can be used for mushroom cultivation (Pomburpa-Olaiulim)
36. Cultivation of spices like ginger, turmeric, pepper and Cinnamon on the hill sides. (Pomburpa-Olaiulim)
37. Bee keeping. (Pomburpa-Olaiulim)
38. Revitalize the profession like carpentry. (Pomburpa-Olaiulom)
39. Local feasts like San Joao, Rampankaracho Fest, Local cuisine and local beverages fest to be encouraged for sustainable experiential tourism. (Pomburpa-Olaiulim)
40. Home stays to be encouraged with Government permission and schemes. (Pomburpa-Olaiulim)

2.1.2. Self Help Groups:

1. Almost all the self-help group members /representatives were of the opinion that the State Government could have taken the help of self-help groups and their services during the lockdown period for the distribution of essential supplies to the affected people within the panchayat jurisdiction. (Verla-Canca)
2. They were of the opinion that the state government could have identified such groups and entrusted them with the task of identifying the problem areas in their respective wards and panchayat area and sought their assistance. This would have created business opportunities for these groups and would have lessened the economic hardships faced by these groups. (Verla-Canca)
3. The Self-help group members also maintained that if the lockdown gets extended and Covid-19 situation continues or worsens, it will be very difficult for them to operate their business activities as their contribution towards the loan repayment has currently fallen from Rs. 1000/- to Rs. 200/- (Verla-Canca)
4. The organisation of weekly market at a designated place preferably near Panchayat office. (Parra, Pilerne - Marra, Oxel, Verla-Canca)
5. E-education programme (E-marketing) for the self-help group members. (Candolim, Verla-Canca)
6. E-education for the self -help group members as to how to use the smart phones effectively. (Verla-Canca)
7. Identification of new areas for SHGs such as: home nursing, catering, Creche. (Verla-Canca)
8. ‘Umid Scheme’ for senior citizens could be implemented. SHGs can take up this opportunity. (Verla-Canca)
9. Expanding business in terms of making masks, stitching Corona virus protective coat for school students, sanitizers, hand wash etc. (Guirim)
10. Digital learning. (Guirim)
11. Online banking transactions. (Anjuna-Caisua,)
12. Running of community kitchens (Guirim)
13. Doorstep banking services through bank sakhis(Guirim)
14. Vermicomposting. (Arpora-Nagoa)
15. Yearly awards for Best Self-Help Group. (Assagao)
16. Cashew Farming. (Assagao)
17. Food processing. (Marna)
18. Community farming. (Candolim)
19. Upgradation of skill. (Candolim, Anjuna-Caisua)
20. ‘Market day’ in colleges (Candolim,)
21. Preservation of folk culture of Goa through dance forms like, Fugdi, Dhalo etc which some of the SHG members are very well versed with.(Anjuna-Caisua, Ucassaim )
22. No proper channel for marketing their produce.
23. No effective communication between members themselves and other groups.
24. Lack of proper place to market their produce.
25. No other activity conducted by SHG other than contribution of money.
26. No effective training in skills (food processing, typing) required to make SHGs competitive.

27. No registration for NCUI groups

28. No information about the schemes available and no channel to receive the information.

29. Lack of coordination between Government and SHG groups.

30. Though all the members are educated there is no unity and no proper channel.

31. No panchayat member or local MLA reached out to people during lockdown.

32. Demarcated area for marketing the produce in the case of local crops.

33. Effective training in identified areas to make SHGs more competitive.

2.1.3. Non-government organisations (NGOs):

1. Biodiversity committee that is formed under the panchayat framework needs to be made more active. (Verla-Canca)

2. Sanitation drive and its effective monitoring can be entrusted to the members of this committee. (Verla-Canca)

3. NGOs to be engaged in the task of creating awareness among the people. (Verla-Canca)

2.1.4. Youth:

1. No career guidance courses (like plumber and electrical courses) (Marna, Pirna, Verla-Canca)

2. No proper counselling. (Aldona, Verla-Canca)

3. Awareness programs for employment of youth. (Parra, Pirna, Verla-Canca)

4. Requirement of playground, gymnasium and community hall. (Verla-Canca)

5. Requirement of market for village. (Verla-Canca)

6. Requirement of community toilets. (Verla-Canca)

7. Collaboration with SHG members for marketing. (Parra)

8. Need to take agricultural activities (Salvador Do-Mundo, Marna)
9. Exams should be suspended. (Nerul)
10. Skill based courses. (Siolim-Sodiem, Oxel)
11. Organizing industrial visits. (Pirna)
12. Library cum Information Center. (Pirna)

2.1.5. Adolescent girls:
1. Sessions on career guidance and schemes are required. (Verla-Cacnca)
2. Regular health checks up. (Verla-Cacnca, Pirna)
3. Training on self-defence. (Verla-Cacnca)
4. Awareness about proper diet. (Verla-Cacnca, Pirna)
5. Equal treatment for boys and girls. (Pirna)
6. Awareness about cyber-crimes. (Verla-Cacnca)
7. Awareness about Drug and Alcohol abuse. (Pirna)

2.1.6. Teachers:
1. Vocational guidance for youth. (Ucassaim)
2. Students to be initiated into right values and students should be made aware of the job oriented courses like Nursing, paramedical courses etc. since these fields lack the expertise. (Ucassaim)
3. Safe toilet facilities for the anganwadi school teachers and children. (Ucassaim)

2.1.7. Taxi Drivers:
1. During pandemic taxi drivers have lost their livelihood because of paralysed tourism. (Pilerne-Marra, Anjua-Caisua, Guirim)

2.1.8. Businessmen:
1. Not received any assistance from the government.
2.1.9. Senior Citizen:

1. In favour of preserving traditional occupations such as carpentry, pottery, salt, fishing, barber, ironsmith, goldsmith etc. (Pilerne-Marra)
2. Full fledge health centre (Pirna)
3. Community hall with recreation facility. (Pirna)

2.1.10. Fishing Community:

1. Water pollution in the river Chapora by Hotels and Guest houses. (Anjuna-Caisua)
2. No proper monitoring by State Pollution Control Board and Green Tribunal. (Anjuna-Caisua)

2.2. Suggestions received from Elected Representatives.

2.2.1. TOURISM

1. Beautification of Cave, bandh and spring (Ucassaim)
2. Health tourism (Saligao)
3. Financial assistance for reviving tourism (Candolim)
4. Beautification of parks (Siolim-Marna)

2.2.2 INDUSTRY

No suggestions received

2.2.3. AGRICULTURE

1. Encourage farming (Candolim)
2. Restore khazan lands (Nerul)
3. Repair bunds (Nerul)
4. Soft loans (Candolim)
5. Free seeds and fertilizers (Candolim)
6. New schemes (Ucassaim)
7. Tractor subsidy ((Ucassaim)
8. Promoting local crops (Parra)
9. Schemes for farmers (Parra,Camurlim,Siolim –Marna)
10. Increase in price of paddy (Parra)

2.2.4. SERVICES
1. Mini hall, gym ((Ucassaim)
2. Need transformers ((Ucassaim)
3. Better public transport ((Ucassaim)
4. Financial help/assistance post COVID- 19 for businesses that have run into loss (Arpora-Nagoa, Nerul)

2.2.5. OTHER OCCUPATIONS AND LIVELIHOODS.
1. Promotion of fishing and cottage industries (Camurlim, Siolim-Marna)
2. Marketing training for SHGs (Parra)
3. Schemes to start businesses (Arpora-Nagoa, Siolim-Marna)
4. Ban LED fishing (Nerul)

2.3. Suggestions made by Researchers

2.3.1. AGRICULTURE
1. Initiate the seedling project (Moiria)
2. Aquaponics project (Moiria, Reis Magos, Camurlim, Siolim-Sodiem, weekly 10 counseling (Aldona)
3. Poly houses (Siolim-Sodiem)
4. Cultivation of local vegetables ( Assnora, Verla-Canca)
5. Soil testing and subsequent advice on what crop to be grown to be provided by agriculture dept.(Nachinola, Revora, Salvador-Do-Mundo, Pilerne- Marra, Calangute)
6. Provide water supply via canals for agriculture (Nachinola, Verla-Canca, Parra, weekly 11ounseling (Aldona)
7. Incentives and subsidies for purchase of seeds, 11ounseling11 and any other machinery (Colvale, Pomburpa, Revora, Tivim, Nerul, Pilerne- Marra, Anjuna- Caisua, Oxel, Siolim-Sodiem, Verla-Canca, Saligao, Bastora, Sangolda)
8. Establish farmers’ clubs ( Pirna)
9. Assistance for fencing (Pirna, Nerul, Siolim-Sodiem)
10. Building, repairs of bandhs (Pomburpa, Sirsaim, Pilerne- Marra, Socorro, Siolim- Marna, Siolim-Sodiem, weekly 1 Counseling (Aldona)
11. Access to mechanical devices such as harvesters and threshers (Pomburpa, Revora, Sirsaim, Tivim, Socorro, Calangute, Candolim, Oxel, Bastora, Sangolda)
12. Straw generated from paddy cultivation to be used for mushroom cultivation (Pomburpa)
13. Kokum, neem and soap nut plantation on hilly areas (Pomburpa)
14. Create awareness about agricultural schemes (Revora, Sirsaim, Nadora, Bastora)
15. Relaxation on loan repayment when crops fail, destroyed by wild animals (Revora, Sangolda)
16. High yielding variety of seeds need to be made available (Revora, Calangute)
17. Use of comunidade land for horticulture and floriculture and regulated by local bodies (Revora)
18. Training in grafting of fruit bearing trees (Revora)
19. Training in vermicomposting (Revora)
20. Training in organic farming (Revora, Bastora, Sangolda)
21. Fallow lands must be identified and legal steps taken to ensure that they do not remain uncultivated (Sirsaim, Salvador-Do-Mundo, Penha-De-Franca, Reis Magos, Socorro, Anjuna- Caisua, Saligao, Sangolda)
22. Free samples of various seeds (Nerul)
23. Community farming (Reis Magos, Pilerne- Marra, Agricultural subsidies must be available with less documentation work ( Pilerne- Marra, Socorro, Camurlim, Assagao, Parra, weekly Counseling (Aldona)
24. Co-operative farming (Socorro, Anjuna- Caisua)
25. Corporate farming (Candolim)
26. Green grass cultivation, fodder cultivation (Camurlim)
27. Digital platforms for providing marketing support to farmers (Anjuna- Caisua, Siolim-Marna, Siolim-Sodiem)
28. Food processing units needed, especially in fruit growing belts (Siolim-Marna, Assagao, Parra)
29. Assistance and training for multi cropping (Siolim-Marna, Siolim-Sodiem)
30. Promote sea weed cultivation (Siolim-Marna)
31. More schemes for farmers’ Clubs (Siolim-Marna)
32. Uncultivated land should be allowed for grazing (Siolim-Sodiem)
33. Farmers’ association (Assagao)
34. Encourage cashew plantation on hills (Assagao)
35. Minimum support price for agriculture produce (Sangolda)
36. Horticulture (Guirim)

2.3.2. FISHERIES
1. Desilting of fish rearing farms (manas) to be performed on a regular basis (Nachinola)
2. Subsidies for buying nets, trawlers, machines for motors boats, freezers (Pomburpa, Sirsaim, Tivim, Candolim, Oxel)
3. Periodic repairs and maintenance of bandharas (Revora, Salvador-Do-Mundo, Socorro)
4. Construction of sluice gates (Tivim, Pilerne- Marra)
5. Cold storage facilities (Calangute)
6. Dry fisheries (Calangute)
7. Rejuvenate Shell fish by banning sand extraction (Camurlim)
8. Crab farming and prawn farming (Camurlim)
9. Artificial ponds for fish breeding (Siolim-Marna)
2.3.3. ANIMAL HUSBANDRY

1. Animal husbandry- dairy and poultry (Moira, Tivim, Nerul, Socorro, Anjuna- Caisua, Camurlim, Siolim-Marna, Siolim-Sodiem, Assagao)
2. Allow access of unused land for grazing (Revora)

2.3.4. SELF HELP GROUPs

1. Encourage greater number of SHG formation (Aldona)
2. Contract for mid-day meals in schools should be given to SHGs (Nachinola)
3. Should collaborate with neighbouring industries for catering services (Pilerne-Marra)
4. The rate of mid-day meal at Rs 6 per plate needs to be increased (Revora)
5. Skill based training for SHGs:
   6. Candle making (Assnora, Sirsaim, Tivim)
   7. Pickles (Assnora, Sirsaim, tivim, Verla-Canca)
   8. Masala (Tivimim)
   9. Tailoring (Camurlim)
  10. Mats (Assnora)
  11. Cooking (Pirna, Anjuna- Caisua, Verla-Canca, Sangolda)
  12. Stitching (Pirna, Revora, Sangolda)
  13. Needle work, embroidery (Revora, Tivim)
  14. Baking (Revora, Sirsaim, Tivim, Anjuna- Caisua)
  15. Soft toys (Sirsaim)
  16. Handicrafts (Sirsaim, Tivim, Anjuna- Caisua)
  17. Cloth bags (Tivim)
  18. Agarbatti making (Tivim)
  19. Mushroom cultivation (Anjuna- Caisua, Verla-Canca)
  20. Beautician course (Anjuna- Caisua, Sangolda)
  21. Need financial assistance to carry out production activities (Colvale, Sangolda)
  22. SHGs should be registered with the panchayat, Re1 fee per member (Pirna)
23. Need a place to conduct their meetings and sell their produce (Pomburpa, Revora, Assagao)
24. Strengthening production-marketing-supply chain (Tivim, Assagao, Sangolda, Aldona)
25. Knowledge on financial inclusion, digital literacy (Anjuna- Caisua, Camurlim, Guirim)
26. Training in hygiene in production, packaging (Camurlim, Verla-Canca)
27. Colleges should organise a “market day’ for SHGs (Candolim)
28. SHG need to be federated (Verla-Canca)
29. SHGs can be given some Covid related responsibilities with respect to vulnerable population. (Verla-Canca)
30. Need to explore new businesses, like mask making, sanitiser making (Guirim)
31. Community kitchen (Guirim)

2.3.5. SCHEMES
1. Awareness (can be done through SMS, emails, gram sabhas, local TV channels, Radio broadcast) and Implementation of schemes essential for village development (Nadora, Nerul, Penha-De-Franca, Reis Magos, Pilerne- Marra, Socorro, Anjuna- Caisua, Calangute, Camurlim, Oxel)
2. MNREGS to be promoted and encouraged (Nadora, Salvador-Do-Mundo, Socorro, Candolim, Verla-Canca, weekly counselling (Aldona)
3. Compulsory health check-ups to combat covid (Nadora)
4. Need self-employment schemes (Parra)
5. Schemes and training for those suffering because of lack of tourism activity (Guirim)

2.3.6. FINANCIAL ASSISTANCE
1. Soft/interest free loans to general public keen on starting micro/small scale business (Nachinola, Colvale, Penha-De-Franca, Verla-Canca, Sangolda)
2.3.7. **RESOURCES**
   1. Auction of communidade land for prawn farming only to villagers (Nachinola)
   2. Broad band network, mobile towers (Calangute, Camurlim)

2.3.8. **WATER/ENERGY**
   1. Rain water harvesting (Moira, Pilerne- Marra, Camurlim, Oxel, Assagao)
   2. Promoting use of solar energy (Moira)
   3. Cleaning of khazan lands and traditional water bodies of the excessive mangroves (Nachinola)
   4. Excavation of nallahs and springs (Pirna, Sirsaim)
   5. Proper retaining wall to river to stop salt water entering fields (Nachinola)
   6. Repairs of leaking canals (Revora)
   7. Digging, cleaning of wells (Nerul, Oxel, Assagao)
   8. Water harvesting in old stone quarries (Assagao)
   9. Potable water testing (Assagao)

2.3.9. **HEALTH**
   1. Health centre with ambulance and free medicines (Pirna)
   2. Medical camps for ladies and children (Camurlim)
   3. Health camps (weekly counseling (Aldona)

2.3.10. **SANITATION**
   1. Need Public toilets, bio toilets (Pirna, Ucassaim)

2.3.11. **CHILDREN**
   1. Focus on children activities (Assnora)
   2. Computer training for children (Pirna)
   3. Training in art and culture for preserving traditions (Oxel, Assagao)
   4. Weekly counseling (Aldona)
2.3.12. HOUSEWIVES

1. Vermicomposting unit in each house (Pirna)
2. Financial literacy (Camurlim)
3. Small business plans for Mahila Mandals (Siolim-Marna)
4. Training in art and culture for preserving traditions (Oxel)
5. Kitchen gardening (Assagao)

2.3.13. YOUTH

1. Skill based training as per requirement (Moira, Nachinola, Camurlim, Candolim, Siolim-Marna)
2. Workshops to be conducted in villages to provide information to youth on various government schemes and assistance in businesses (Nachinola, Pirna, Reis Magos, Pilerne- Marra, Aldona)
3. Visit to industrial estate should be organised by panchayat (Pirna)
4. Training and information regarding IT, latest technology (Pirna, Camurlim)
5. Training centre for youth imparting training in carpentry, plumbing, electrical, masonry, mechanical skills (Pomburpa, Revora, Sirsaim, Salvador-Do-Mundo, Reis Magos, Pilerne- Marra, Camurlim, Candolim, Siolim-Marna, Ucassaim, Aldona)
6. Coconut plucking training (Revora, Oxel)
7. Training in making bamboo baskets, brooms, maato, weaving of coconut palms (Revora, weekly counselling (Aldona)
8. Motivate to take up agriculture, fishing, (Salvador-Do-Mundo, Reis Magos, Siolim-Marna, Assagao, Ucassaim, Bastora, Sangolda, Aldona)
9. Training for start-ups (Siolim-Marna, Sangolda, Aldona)
10. Training in art and culture for preserving traditions (Oxel)
11. Vocational guidance (Ucassaim, Aldona)

2.3.14. SENIOR CITIZENS

1. List of senior citizens in the village needs to be maintained (Pirna)
2. Their knowledge of medicinal plants must be recorded and published (Revora)
3. Should be introduced to IT enabled services (Camurlim)
4. Regular medical check up (Sangolda)
5. Weekly counselling (Aldona)

2.3.15. EDUCATION
1. Short term courses in communication skills in English (Revora)
2. Introduce agriculture related subjects in curriculum to create interest among younger generation (Pilerne- Marra, Socorro)
3. Linkages with HEIs for awareness of competitive exams (Anjuna- Caisua)
4. Awareness on schemes for higher education for SC, ST, OBC (Oxl)
5. Value education (Ucassaim)

2.3.16. MARKETING SUPPORT/LOGISTICS
1. Online platform for sale of all types of village (Moira)
2. Inter village network for sale of products made by SHGs on an online platform (Moira, Anjuna- Caisua)

2.3.17. TOURISM
1. Aqua tourism (Salvador-Do-Mundo, Candolim, Siolim-Marna)
2. Eco tourism (Salvador-Do-Mundo, Pilerne- Marra, Bastora)
3. Kerala Model of hosting tourists as guests in homes (Socorro)
4. Those dependent on tourism should be encouraged to take up other activities (Saligao)

2.3.18. GOVERNANCE.
1. Set up nodal officers for economic revival program (Moira)
2. Schemes to be initiated with panchayat as per their requirements (Moira)
3. Increase the pace of administrative work, single window system ((Moira, Calangute, Siolim-Sodiem)
4. Training and development Centre in each village, but training must be fee based (Calangute)

5. Follow up should be made on all schemes from time to time (Moira)

6. Library cum information centre with internet facility for studying in panchayat under GPDP (Pirna, Camurlim, Oxel, Siolim-Sodiem)

7. Increase MNREGA job card holders (Pirna, Revora)

8. Education on waste composting (Pirna)

9. Forcing tenant farmers to cultivate their land through legislation, schemes, subsidies; contract farming or community farming (Pomburpa)

10. Further improvement in the digital mode of transfer of funds directly to the concerned party (Revora)

11. Access to clay for those making Ganesh idols (Revora)

12. Market place in the village (Revora, Sirsaim, Salvador-Do-Mundo, Penha-De-Franca, Anjuna- Caisua, Calangute, Oxel, Siolim-Sodiem, Aldona)

13. Public body needs to be accountable to the public (Revora)

14. Phone signal and internet connectivity needs to be improved (Revora)

15. VDCs need to be activated (Revora)

16. Need to promote NGO (Nadora)

17. Panchayat services should be available online (Penha-De-Franca, weekly counselling (Aldona)

18. Dedicated help desk to reply to public queries, filling up of forms, (Penha-De-Franca, Camurlim)

19. Need to develop Smart/Model Villages in Goa (Pilerne- Marra)

20. Each industry must compulsorily adopt one village and spend 1% of its monthly income for village benefit (Pilerne- Marra, Socorro)

21. Awareness campaign to make panchayat members aware of various Central govt schemes (Pilerne- Marra)

22. Village Panchayat and voice of villagers must be considered while deciding the State Policies, State and Central govt should be supportive and not controlling (Socorro, Calangute)
23. Financial literacy camps required (Calangute)
24. Whatsapp groups to connect buyers and sellers (Candolim)
25. Taxi app for taxi owners (Candolim)
26. Skill based online courses (Siolim-Marna)
27. Need for ‘institutional strengthening’ of panchayat, members need to undergo rigorous training (Verla-Canca)
28. Quarantine facilities at village level (Sangolda)
Chapter - 3
Bicholim

Compiled by Dr Gervasio Mendes

The following findings are of the Village Panchayats of Bicholim. This taluka comprises of 18 Panchayats. The findings are compiled from the responses obtained from the Elected Representatives, Panchayats functionaries and the citizens who participated in the focused group discussions.


3.1.1. AGRICULTURE

A. Activities which can be taken up immediately:

1. To explore the possibility of organic farming.
2. Manure could be made available at subsidized rates.
3. Local water resources can be used with proper water distribution system.
4. The schemes related vegetable cultivation, irrigation, fencing, horticulture, veterinary services should be promoted in the village.
5. Awareness programme on agriculture schemes to be held every year for promotion of agriculture.
6. Awareness drive could be conducted on the prevailing market rates for crops.
7. Training on modern farming techniques should be imparted.
8. Cultivators should get machinery, seeds, training and other subsidy for cultivation.
9. Fishing activities can be restarted in the local rivers.
10. The villagers may be provided support to start tailoring ventures and work as mechanics of automobiles.
11. Clearance of unwanted shrubs and trees especially developed with pro-long non-cultivation land due to mining silt.
12. **Organizing workshop on tenancy act** for owner as well as for tenants by the SurlaPanchayat.
13. Appointment of **ground level water monitoring committee** at village level.
14. Organizing **talk/presentations on agriculture, innovation and adaptability** for local farmers.
15. **Soil testing** by agricultural department at frequent intervals.
16. **Proper awareness of advanced technologies** in agricultural sector.
17. **Encouraging youth to take up courses** that would improve their skill in agriculture.
18. **Farmer clubs** may be set up to improve agriculture activities.
19. Setting up of **watershed associations** to supplement irrigation facilities.

**B. Activities which can be taken up in a short period of time (upto 1 year)**

1. **Pucca roads** are required which will enable easy access to the fields.
2. **Desiltation of Cudne River** to reduce flooding in low lying agricultural fields along flood plain.
3. **Irrigation facility** to be provided to the farmers.
4. **Power Fencing schemes** could be promoted among the farmers.
5. **Floriculture** can be taken up on a commercial scale.
6. **Dairy farming, cattle breeding and supplying milk** can be carried out on a commercial scale.
7. The villagers can enter into **poultry farm sector and set up chicken shops**.
8. **Sustainable agricultural mechanization** can also contribute significantly to the development of value chains and food systems as it has the potential to make post-harvest processing and marketing activities and functions more efficient, effective and environmentally friendly.
9. **Agro-based industry** can be promoted.

**C. Activities which can be taken up in a medium time period (1-3 years)**

1. **Renovation of existing ‘bandh’**.
2. A platform like a village market could be explored for villagers to sell their agricultural produce.

3. The work of cultivation of horticulture crops shall be implemented through MGNREGA scheme for helping the farmers in the village.

4. Khazan land could be used to cultivate aquaculture.

5. Enable youth to take up agriculture by granting access to land and finance.

D. Activities which can be taken up in a longer period of time (more than 3 years)

1. To explore the possibility of community farming and co-operative farming
2. Construction of water harvesting unit for irrigation.
3. Employment in the agriculture sector can increase through proper training and guidance through the Department of agriculture and ICAR.
4. Solar energy projects could be encouraged through GEDA.

3.1.2. TRADITIONAL OCCUPATIONS

A. Activities which can be taken up immediately

1. Traditional artistry/traditional skills can be promoted.

B. Activities which can be taken up in a short period of time (upto 1 year)

1. The skill enhancement courses on cooking, tailoring and cosmetics may be conducted.

C. Activities which can be taken up in a medium time period (1-3 years)

1. The training and skill enhancement programmes should be conducted in the village especially for the women.
D. Activities which can be taken up in a longer period of time (more than 3 years)
   1. Skill specific vocational jobs with specific occupations like masons, plumbers, electricians can be encouraged.

3.1.3. SELF HELP GROUPS
A. Activities which can be taken up immediately
   1. The traditional art skills among the villagers needs to be recognised.
   2. Frequent awareness camps can be organised by the Rural Development department authorities to create awareness about the different schemes of assistance available to the SHGs.

B. Activities which can be taken up in a short period of time (upto 1 year)
   1. Various SHGs functioning in a particular area can form a co-operative society. This society may be entrusted with the task of marketing the products of different SHGs under a common brand name. Further, the society can undertake sales promotion activities and procure rare raw materials for the benefits of member SHGs.
   2. The SHGs could be given training for upgrading their skills.
   3. Skill-based classes are required to enhance and motivate the SHGs, so that they become active in their areas.
   4. Service based enterprises could be taken up by SHGs through proper guidance.
   5. All SHGs requires skill oriented training for producing value added products.
   6. Women should be given complete knowledge about facilities provided by Government, regarding new schemes and programmes for groups, subsidies provided by govt.

C. Activities which can be taken up in a medium time period (1-3 years)
   1. SHGs should be encouraged to undertake food processing and agro-based enterprises.
2. Women should be given **better market linkage** to sell their products and **financial linkage** so that they can invest money in making more products.

D. **Activities which can be taken up in a longer period of time (more than 3 years)**

1. It is necessary to implement **self-sustainable plan** with village artisans, skilled persons, SHG’s.

3.1.4. **TOURISM**

A. **Activities which can be taken up immediately**

1. **Eco-tourism** can be taken up.
2. **Places of worships and dam** can be promoted as tourism spots if well maintained.
3. The **folk art and folk dances** like Morulo, dhalo can be promoted.
4. The **business related to tourism** should be provided with subsidies and loans.

B. **Activities which can be taken up in a short period of time (upto 1 year)**

1. Establishment of **agro-eco tourism** by exploring rich resources of village.

C. **Activities which can be taken up in a medium time period (1-3 years)**

1. There is also a scope for **development of farm houses** in some places to attract the tourism.
2. **Water reservoir** should be revived to attract tourists.

D. **Activities which can be taken up in a longer period of time (more than 3 years)**

1. Setting spice farms, amusement park could attract tourist.
2. There is scope for **Agro-Farm with Water park**.
3. Promoting **adventure tourism (water sports)** may gain significant revenue to the village.
4. **Heritage tourism and attached services** shall open economic doors to the village.
5. **Boating facility, sight-seeing, renovation of temples** could be taken up.
3.1.5. SERVICES

A. Activities which can be taken up immediately

1. More initiatives could be given under vocational, mechanical and electrical services.
2. Job card holders could be given employment under MGNREGS.
3. Special training programs can be arranged to educate and encourage people to take up these activities in the village.
4. Non-polluting mining activities can be encouraged.
5. Knowledge upgradation of fishing net skills, cooking skills of the villagers to be taken up.
6. Door-to-door dry garbage collection to be made 100%.
7. Villagers without toilet should apply for the benefit of Biodigester toilets under Swacchha Bharat Mission.
8. Street light poles needs to be fixed at various places.
9. Remove mining silt from agriculture fields and paddy field.
10. There is scope for setting up of MSME’s in village like small cashew factory, food processing industry etc. proper study and financial support in this regard is required.
11. There is need of toilets for maximum houses.
12. Rain water harvesting measures need to be adopted in the village.
13. There are number of types of jobs that come under MGNREGS like cleaning of nullahs, surrounding area of temples and schools, construction of kaccha roads etc.
14. People should be made aware of the different types of schemes available by the Panchayat body, by holding meeting or workshops, so that youth can come forward to earn their income and be independent in life and the village also gets developed.
15. More number of Youth (27% - at present who are linked with bank) and Farmers (57% - at present who are linked with bank), could come forward to get
loans from banks and get better output from the activities that they do, to generate income.

16. **Financial assistance support from EDC and banks** to improve industrial sector.
17. **GHRSSIDC** to be also roped in to boost **handicraft production** in the village.
18. **Dairy farming and poultry farming** be encouraged for farmers with livestock.
19. **Rearing & grazing of sheep and goat** is possible due to ample grasslands.
20. Providing **financial support, entrepreneurship facilities in animal husbandry**.
21. **Joint Forest management** - a partnership between society and forest department could be engaged for protection and development forest resources.
22. Implementation of **social forestry** can provide income to farmers and rural communities.
23. Promoting **traditional skills such as pottery work, craft designing, event decoration**, etc.
24. **Training & skill transfer** from senior artisans, professionals to youth to restore skill.
25. Encouraging self-employment through **TRYSEM and JRY** can further increase employment opportunities in the village.
26. Potential for **water harvesting**.
27. **Solar energy projects** could be encouraged through GEDA.
28. **Awareness programmes on self-employment** can be organised to motivate youth to start their own enterprise.
29. Panchayat can **promote various schemes** promoted by the government from time to time.
30. **Businesses revolving around agriculture, textiles and food processing** can be encouraged and training for same may be given.
31. **Food processing and agro-based industries** can generate self-employment as well as employment for others.
32. **Agro related services and electrical services** needs to be given more attention.
33. **Vocational, mechanical and electrical activities** needs to be encouraged. **Animal husbandry** also can be taken up as self-employment activity.
B) Activities which can be taken up in a short period of time (upto 1 year)

1. Micro/Small/Medium Enterprise/ Industried can be started.

2. There is a scope for Solar Energy, so training could be provided to the youth to set up Solar panel that could be used to generate electricity for the household as well as industry.

3. Desilting and development of dead lake and other water resources.

4. Training of various handicrafts such as candle making, tailoring is required to be provided to make the youth more self-reliant.

5. Employment information bureau can also be formed at village/taluka level to create awareness about employment opportunities.

6. Villagers can take up beauty parlour and salons, restaurant and eateries, facilitating transport services.

7. A volleyball academy can be set up to train budding youngsters.

C. Activities which can be taken up in a medium time period (1-3 years)

1. Promoting micro-industry like handicraft through Self Help Group can gain many benefits to access the local market.

2. Typical small-scale cottage activities like food processing, e.g. baking, parboiling of rice, preparation of noodles, fish smoking, preservation of fruits and vegetables, street food preparation, the brewing of beverages, drying of grain, and spices. These activities are of particular importance to women who usually tend to both own and manage them.

3. A Nationalized bank or ATM could be started on priority.

4. Construction of canal in the fields.

5. Repair of all nallahsand canal (paat) in Village Panchayat Sirigao jurisdiction.

D. Activities which can be taken up in a longer period of time (more than 3 years)

1. Large and small industries can be started in the village.
Chapter - 4

Pernem.

Compiled by Dr. Gervasio Mendes

The following findings are of the Village Panchayats of Pernem. This taluka comprises of 20 Panchayats. The findings are compiled from the responses obtained from the Elected Representatives, Panchayats functionaries and the citizens who participated in the focused group discussions.

4.1 Suggestions for Economic Revival.

4.1.2. AGRICULTURE

A. Activities which can be taken up immediately

1. Conduct of awareness programmes pertaining to the Government schemes available for agricultural activities.

2. Conduct of training programmes on techniques of cultivation, irrigation system, usage of new agricultural machineries, marketing strategies etc.

3. A data base should be prepared identifying opportunities for agricultural activities in various villages of Pernem Taluka.

4. Farmers should be encouraged/motivated to undertake more lucrative ventures like cashew plantation, mushroom cultivation, bee farming, poultry farming, dairy farming, vermi-composting, floriculture, piculture, horticulture, fisheries/pisciculture, organic farming, vegetable cultivation, terrace gardening, kitchen gardening, hydro phonic farming, vertical gardening, food processing, animal husbandry etc.

5. Need of promoting local chilly production on a larger scale as they are in demand all over the Goa.

6. Every Farmer carrying agriculture should be covered under the Crop Insurance by the State Government.
7. More liberal terms should be offered to the farmers to undertake power fencing, solar fencing etc. as a measure against the wild animal attacks on the crops.

8. The Forest Department should patrol the village to avoid/check the movement of wild animals damaging the standing crops.

9. Uncultivated Land should be identified and cultivation should be encouraged.

10. Educating and motivating the farmers and the youth to undertake community based farming, social farming or group farming so as to create scale economies in this sector.

11. Timely Availability of capital inputs like seed fertilizer, water, pesticides and insecticides and modern equipment like harvester or tractor to the farmers.

12. Promoting farmers clubs or associations committed to protect farmers interest with youth participation is very much required.

13. Farmer-Market linkages need to be improved.

14. Desilting of Rivers, village nullahs etc. should be taken up on priority.

15. Canal system should be elevated.

16. Water table should be improved.

17. Water logging of the Tillari Canal Water to be controlled.

18. Rainwater harvesting units to be set up.

19. Energy-efficient pumps for irrigation and drip system should be installed.

20. The pump house should be given free of cost or at reduced rate.

21. Hiring cost of harvesting machine to be reduced.

22. Rice Planting (Lavani) machine to be introduced.

23. Agriculture Department should provide Power Tiller free of cost.

24. Electricity Connection to be given to the Farmers immediately once they apply for the same.

25. The Officer from the Agriculture Department should visit the village twice a month to cater to the issues coming in way of the agriculture.

26. Interest rate on Loans provided for agriculture should be reduced.

27. Access to be made to the fields for easy movements of farming machineries to the fields.
28. **Collaboration with Agricultural College** to promote agricultural activities in a systematic manner.

29. Setting up of **greenhouses** to those interested in expanding business on large scale.

30. **Implementation processes of the schemes** for agriculture and village development should be simplified.

31. Once the crop is harvested locals should be given the **first preference by the Bagayatdars.**

32. **Assurance of Economical Farming** should be given to farmers to motivate them to carry on agricultural activities even when the situation worsens.

**B. Activities which can be taken up in a short period of time (upto 1 year)**

1. The Village Panchayat should approach the **Private companies under CSR** to support the agriculture by hosting agriculture Fairs/Melas in Urban and Semi-Urban areas in co-ordination with the Government agencies.

2. **Farmer-Market linkages** needs to be improved, identifying outlets/marketing areas or other marketing mechanism for the timely sale of the farm products and to get a fair price.

3. The Schools must include **vocational training to inculcate the interest in agriculture** amongst the local youth.

4. **A road should be constructed in Desai Field** to help revive the life of all the farmers in the Tuem village.

5. Strong measures required to revive the traditional irrigational system by taking **desilting and maintaining of a spring** that flows from one end of panchayat of Khazne-Amere-Poroscodem to the other end.

6. **Special drive is required from the zonal agriculture office to prepare a database** indicating the soil type, the traditional cropping suitable to the soil type and potential for modern agriculture in Khazne-Amere, Poroscodem.

7. It is also important to undertake **educational and skill upgradations in agriculture** specially amongst the youth, developing and promoting modern agriculture in more
profitable areas like horticulture, floriculture, aquaculture, dairy and poultry and other cultivation of fruits like banana, mangoes, pineapple, coconut, cashew, kokum, areca-nut etc.

8. The Ugave-Mopa-Tambose Village Panchayat claims to have around five thousand coconut trees however their coir is not utilized and therefore it requires to be explored and interested person should be allowed to establish small scale coir unit and such a person should be given entrepreneurship and market facilities.

9. Follow up for permanent solution for water supply issues- Sal to Chandel (Tillari river)

C. Activities which can be taken up in a medium time period (1-3 years)

1. Around 30 Acres of land has become uncultivated in Casarvarnem Village due to water logging of Tillari Canal. The pipeline should be erected from the place of logged water to the River so as to drain the logged water into river.

2. Vasant Bandhara, which was the main source of the irrigation for the farmers of Torsem Village prior to the construction of Tillari canal, should be restored again. Due to lack of maintenance the same is in a dilapidated condition. It needs to be renovated for irrigation as Tillari water supply is quite irregular.

D. Activities which can be taken up in a longer period of time (more than 3 years)

1. Development of Taluka level Agricultural Marketing Federation.

4.1.3. TRADITIONAL OCCUPATIONS

A. Activities which can be taken up immediately

1. Many villagers of Torsem have the traditional skills in handicrafts preparation which needs to be polished through training.

2. The basket weavers of Ozrim Village needs to be trained on weaving products which are in demand with changing times along with the traditional ones.
3. Traditional art of making Ganesh idols is one of the renowned specialty of people of Parsem village. Awareness camps may be arranged for the artists to provide modern day tools to improve the quality of the output.

4. Local sculptors of Mandrem village needs to be promoted by providing required raw material and manpower simultaneously.

5. Making of local crafts in Morjim village should be encouraged.

B. **Activities which can be taken up in a short period of time (upto 1 year)**

1. Training unemployed local youth in local skills available in village in order to sustain and preserve the local knowledge.

C. **Activities which can be taken up in a medium time period (1-3 years)**

1. The taluka can conduct Taluka level Handicrafts Fair.

D. **Activities which can be taken up in a longer period of time (more than 3 years)**

1. Tie up with Entrepreneurial Institutions for long term partnerships.

4.1.4 **SELF HELP GROUPS**

A. **Activities which can be taken up immediately**

1. A market place must be initiated to install permanent stall/shop where local farmers and SHG can sell the agriculture produce, and other items prepared by them.

2. Special initiatives are required to boost women empowerment through promotion of SHGs by undertaking targeted policy measures in skill development and creating entrepreneurial abilities amongst the rural women community, with due follow-up and monitoring at every level.

3. It is also important to attract young generation and dynamic leadership in the functioning of SHGs, with efforts towards bringing renewed initiative greater participation at all levels.
4. **Establishing a federal structure for SHGs** through creation of federation to provide new direction for idle or relatively dormant SHGs.

5. Panchayat office can take measures to create opportunities in providing **training facilities and creating market network for production of value based products and in marketing of these products**.

6. **Funds may be provided to these Self help groups and Mahila Mandals** to purchase the equipment to set up desired form of business. Alternatively, Panchayat may also purchase a bulk quantity of equipment necessary for such setups and can render these services to various groups on rental basis generating a substantial amount of revenue for the panchayat.

7. **Catering services** to be promoted through SHGs.

8. **Self-help groups should be encouraged to come up with small scale business** like preparing Masala, Papad, Pickle & others.

9. **Self help groups can involved in agriculture** & they can work together in a group for cultivation like vegetables.

**B. Activities which can be taken up in a short period of time (upto 1 year)**

1. **Training should be provided in tailoring, Cooking, Bakery and Handicraft** to the women from the Self Help Groups.

2. SHGs should be imparted training to run the **ventures on more scientific lines** which will help them expand their business.

**C. Activities which can be taken up in a medium time period (1-3 years)**

1. Assisting SHGs by providing platform for interactions with educational institutions to promote and popularize organic products.

**D. Activities which can be taken up in a longer period of time (more than 3 years)**

1. Development of infrastructural facilities like cold storage to help SHGs to have a longer shelf life for their products.
4.1.5. TOURISM

A. Activities which can be taken up immediately

1. Updating information about the villages on GTDC portal and highlighting the specific tourist spots in the taluka.

B. Activities which can be taken up in a short period of time (upto 1 year)

1. The canal site at Chandel-Hasapur Village must be developed for people to visit and promote it as a potential tourist spot. A jogger’s park can be constructed alongside the canal, encouraging health and fitness tourism.

2. A proper trekking rout in the forest may be identified which is safe, does not provide much disturbance to the natural habitat.

3. Tourism Department should formulate a policy to promote hinterland tourism in Alorna village in collaboration with the local bodies.

4. Developing rural and agricultural tourism in Torsem village can be given a thought. The villagers should be advised to introduce spice farms to develop eco-tourism.

5. Maintenance of sweet water lake in Arambol village

6. Promoting Ecotourism activities –trekking, bird watching, dolphin trips, pooltrails, paragliding, seasonal tracks, conducting short tours on local medicinalplants, spice plantations.

7. Provision for the performance of Local folkdance/theatre art for tourist.

8. Making provision for sale of local handicraft works.

9. Online registration and issue of E-pass/E-certificate for the local tourist to ensure that tourism department keeps track of their activities.


11. Plan for proper facilities (toilet and changing room) to enhance quality tourism.
C. Activities which can be taken up in a medium time period (1-3 years)

1. Tali and Kadshi rivers could be developed into a tourist spots. This would help generate employment to the locals. The said Bandara is in connection with internal road from both the villages i.e. from Ugave to Tamboxem and upcoming international airport is in Vicinity, which could me a highlighting factor in catching tourist attention. This area can be developed into Eco- tourism. Activities related to water sports could be taken at the mentioned spot.

2. Alorna Fort should be developed and promoted prominently as a tourist spot. A river cruise from Colvale, Nadora and Alorna must be explored. A mini jetty could be built in the village at the suitable place/site. There is vast scope for developing eco-tourism in the village.

D. Activities which can be taken up in a longer period of time (more than 3 years)

1. There is sufficient scope to develop Medical Tourism and Wild life tourism in Ugave-Mopa-Tamboxem.

4.1.6. SERVICES

A. Activities which can be taken up immediately

1. Self-employment needs to be encouraged.

2. Income generating projects and the schemes of the Village khadi Board (Central Govt.) may be identified and introduced.

3. The youths who already posses required skills should be provided with employment opportunities.

B. Activities which can be taken up in a short period of time (upto 1 year)

1. Small scale and cottage industries should be encouraged.
2. **Awareness and training programme** should be conducted for the youth about the Indian Navy, Indian Army, Indian Air force, UPSC and other national service sectors.

3. Considering the future job opportunities in Mopa Airport it is essential to **identify the Jobs and impart training for such jobs.**

4. **Skill based courses** required to be taken up in following areas – Fishing, Animal husbandry (Dairy), Poultry Farming, Textile, Mechanical, and Electrical in considering upcoming Mopa Airport.

5. **Specific Skill development** needs to be encouraged especially given the potential created by the coming up of international airport next to the locality.

6. Targeted approach towards promotion of **modern agriculture and allied activities** in small groups with adequate support at different levels from different government agencies at list till a successful model is built in these sectors.

7. **Gramin tourism model** can be created by promoting desired tourism activities which can boost employment at local levels in different strata of this society.

8. **Focus on creating youth associations for channelization of youth energy** in right directions.

9. **Panchayat needs to maintain a database** of available human resources, its quality and type for making some policy decisions towards employment generations.

10. **Tourist Vehicle** - Government should come-up with an agreement that only Goan taxi owners will be employed and not outsiders at Mopa Airport.

C. **Activities which can be taken up in a medium time period (1-3 years)**

   1. The **Government hospital from Tuem village** should be made fully operational and should have equipments and staff that can even handle emergency cases.

D. **Activities which can be taken up in a longer period of time (more than 3 years)**

   1. Strengthening the infrastructure at Tuem Industrial Estate.
The following findings are of the Village Panchayats of Sattari. This taluka comprises of 12 Panchayats. The findings are compiled from the responses obtained from the Elected Representatives, Panchayats functionaries and the citizens who participated in the focused group discussions.

Sattari, an important hinterland taluka in the state of Goa, well-known for its greenery has its eastern part lying in the Western Ghats. Etymology of the word ‘Sattari’ can be traced to the Konkani word ‘Sattar’ which means seventy, thus, Sattari taluka represents seventy villages. According to the 2011 census report, Sattari taluka has a total of 71 inhabited villages under its jurisdiction.

Map 5.1 Map of Goa, North Goa, Sattari Taluka.
Sattari has a rich cultural heritage, with many distinct folk arts associated with this region. Besides this, the Taluka is endowed with rich biodiversity as recorded in the People’s Biodiversity Registers maintained by the various village panchayats. The taluka is well known for the presence of Sacred groves- an area of natural vegetation preserved through local taboos and sanctions that entail spiritual and ecological values (UNESCO 1996). Of the 94 recorded sacred groves in the state of Goa, 49 have been reported from Sattari taluka. Many of the villages of Sattari taluka are located at the foothills of Western Ghats and are part of the Mhadei Wildlife sanctuary.

Parts of Sattari taluka also come under the mining belt of the State of Goa. According to the Directorate of Mines and Geology, Government of Goa, as of 2011, out of the 89 active mines in the State of Goa 10 are located in Sattari taluka. Further, the taluka has two active Industrial areas located at Honda and Pissurlem. Thus, Sattari has a unique blend of rural, semi-urban and forested setting. Needless to say, that the taluka has unique set of issues pertaining to their economy. Though, primarily an agrarian economy, mining and to some extent limited industrial activities in Sattari taluka also contribute towards the overall economy of the State of Goa.
The Taluka has 12 Panchayat blocks namely; Birondem, Cottorem, Dongurli- Thane, Guleli, Honda, Mauxi, Morlem, Nagargao, Pissurlem, Poriem, Querim, Sanvordem.

5.1. Demographic Features

Population: The total population of these village panchayats of Sattari block was 51330 in 2011. There is wide difference in the distribution of population among different village panchayats of the block ranging between the lowest 2678 in Guleli and the highest 9014 in Honda (Fig 5.1) with average population of the panchayats in the block being 4278.

Figure 5.1: Panchayat wise Distribution of Population in Sattari Block

![Population Distribution Graph](image)

Source: Respective Panchayats

Gender Ratio: The average gender ratio was 959 with lowest gender ratio being 893 in Honda and highest 1030 in Dongurli Thane (Fig 5.2). Four of the panchayats had favourable gender ratio of above 1012.
5.2. Finances of the Panchayats

The revenues of the village panchayats in Sattari block reveal that, maximum 45% is the share of Grants-in-aid followed by 28% from other state and Central Schemes (Fig. 5.3). The revenues from the panchayats’ own resources contributed around 28%. These figures provide only a rough picture of finances of the panchayats as some of the sources of revenue might not been coming under the sources through which total revenue estimates have been made. In the case of Village Panchayat of Morlem, the contribution of grants-in-aid to the total revenues / receipts is shown as zero.

The Panchayat expenditure was maximum in the case of Dongurli Thane Panchayat while, the lowest was incurred by Sanvordem Panchayat (Fig. 5.4). Dongurli Thane accounted for the highest deficit in its budget. Bhironda Panchayat received maximum revenue and it had a surplus budget along with Honda and Mauxi Panchayats.
5.3. Basic Amenities and Services

As per the Panchayat data, only one market in Honda is seen in the whole of the block (Table 5.1). Sanvordem and Cimore panchayats do not have crematorium. However, all other
facilities are observed to be reasonably good. Owing to small size of population, village panchayats like Sanvordem might be sharing some of the facilities with neighbouring panchayats.

**Table 5.1: Panchayat-wise General Facilities in Sattari Block**

<table>
<thead>
<tr>
<th>Village Panchayats</th>
<th>Market</th>
<th>Crematorium</th>
<th>Anganwadi</th>
<th>Post Box</th>
<th>Gymnasium</th>
<th>PHCs/CHSc/Sub Centre</th>
<th>Private Clinics/Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nagargao</td>
<td>0</td>
<td>1</td>
<td>11</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Sanvordem</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Guleli</td>
<td>0</td>
<td>2</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Cotorem</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Dongurli Thane</td>
<td>0</td>
<td>2</td>
<td>10</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mauxi</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Poriem</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Bhioronda</td>
<td>0</td>
<td>3</td>
<td>9</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Pissurlem</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Querim</td>
<td>0</td>
<td>3</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Honda</td>
<td>1</td>
<td>2</td>
<td>12</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Morlem</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1</strong></td>
<td><strong>18</strong></td>
<td><strong>99</strong></td>
<td><strong>13</strong></td>
<td><strong>7</strong></td>
<td><strong>19</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

*Source: Respective Panchayats*

### 5.3.1. Natural Resources

Sattari is naturally gifted with scenic beauty with three rivers, 49 streams, 14 waterfalls and 35 ponds (Table 5.2).

**Table 5.2: Panchayat-wise Natural Resources in Sattari Block**

<table>
<thead>
<tr>
<th>Village Panchayats</th>
<th>Rivers</th>
<th>Streams</th>
<th>Waterfalls</th>
<th>Ponds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nagargao</td>
<td>2</td>
<td>8</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Sanvordem</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Guleli</td>
<td>2</td>
<td>6</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Cotorem</td>
<td>1</td>
<td>12</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Dongurli Thane</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Mauxi</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Poriem</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Bhioronda</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Pissurlem</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Querim</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Honda</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Morlem</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3</strong></td>
<td><strong>49</strong></td>
<td><strong>14</strong></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>

*Source: Respective Panchayats*
5.3.2. Self Help Groups (SHGs)

The block can boast of the presence of nearly 250 SHGs (Table 5.3.). Assessment of their functioning is more important than their mere numbers.

Table 5.3: Panchayat wise Self Help Groups (SHGs) in Sattari Block

<table>
<thead>
<tr>
<th>Village Panchayats</th>
<th>SHGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nagargao</td>
<td>15</td>
</tr>
<tr>
<td>Sanvordem</td>
<td>15</td>
</tr>
<tr>
<td>Guleli</td>
<td>35</td>
</tr>
<tr>
<td>Cotorem</td>
<td>17</td>
</tr>
<tr>
<td>Dongurli Thane</td>
<td>8</td>
</tr>
<tr>
<td>Mauxi</td>
<td>5</td>
</tr>
<tr>
<td>Poriem</td>
<td>73</td>
</tr>
<tr>
<td>Bhironda</td>
<td>5</td>
</tr>
<tr>
<td>Pissurlem</td>
<td>35</td>
</tr>
<tr>
<td>Querim</td>
<td>11</td>
</tr>
<tr>
<td>Honda</td>
<td>9</td>
</tr>
<tr>
<td>Morlem</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>243</td>
</tr>
</tbody>
</table>

Source: Respective Panchayats


In the present section, a comprehensive plan/proposal for the economic revival of the Sattari taluka is being presented based on the data gathered by the various teams of the College. The suggestions given by the various teams for their respective panchayat were critically analysed and strengths of each panchayat was seen in totality *viz a viz* other panchayats in the taluka. Thus, the strength of each panchayat was not seen in isolation but was considered in relation to the strengths of other panchayats of the taluka. Consequently, an overall economic revival plan for the entire taluka has been drawn.

Attempt has been made to facilitate the distribution of opportunities and / resources evenly among all the village panchayats. The economic plan includes proposing economic revival activities for every village panchayat keeping in mind their overall strengths, weaknesses and available opportunities. This has resulted in identifying certain panchayats for tourism
activities while others were identified for agro-based businesses; likewise panchayats were also identified for setting up of food/farm based MSMEs as well as dairy processing units. This would result in strengthening and developing expertise/speciality in a specific economic activity in a particular village panchayat.

Following are the suggestions for the overall economic revival of the taluka.
The strength of Sattari lies in its natural endowments, unique cultural heritage and youth. Potential sectors which can contribute immensely towards the economic revival of this taluka are listed below.

5.4.1. Hinterland Tourism

Potentials of Sattari for Hinterland Tourism
The State of Goa in general and Sattari taluka in particular has a huge potential for hinterland tourism. Apart from the silvery beaches, Goa is blessed with a unique hinterland topography having serpentine waterbodies, wetlands, hilly terrain and lush green forests. All these features provide a unique opportunity for tourism. Not to forget that Goan Western Ghats are part of the biodiversity hotspots of the world. The scenic beauty of hinterland is further increased during the monsoon with numerous waterfalls and the rivulets flowing majestically with full of life.

5.4.2. Ecotourism:
The villages of Sattari taluka which are directly located at the foothills of Western Ghats are especially blessed with great potential for eco-tourism. The concept of eco-tourism is based on sustainability. According to The International Ecotourism Society (TIES), ecotourism can be defined as “responsible travel to natural areas that conserve the environment, sustains the well-being of the local people, and involves interpretation and education”. For the upliftment of the present residents and the betterment of the future generations the concept of eco-tourism is apt. Adopting eco-tourism model would sustain the ecology and the economy of these villages for a long time. All the tourism activities at Sattari taluka are being proposed
under the concept of Eco-tourism model. The specialized tourism activities can be **Adventure tourism, Cultural tourism, Agri-tourism and Wildlife tourism.**

### 5.4.3. Adventure tourism:
As per industry estimates, inbound adventure tourism in India is growing 5-7 per cent annually and domestic **adventure tourism** is growing by 20-25 per cent (traveltrendstoday.in).

### 5.4.4. Cultural tourism:
According to a view, **Cultural tourism in India** is the predominant factor behind India’s meteoric rise in the tourism segment in recent years, because from time immemorial, India has been considered the land of ancient history, heritage, and culture. Considering the importance of cultural tourism, Union budget 2020 proposed a slew of measures including the development of iconic tourist sites, setting up new museums and focus on better infrastructure for connectivity. For this, the Government has allocated ₹2,500 crore for FY 2020-21 to the Ministry of Tourism and ₹3,150 crore to the Ministry of Culture (Union Budget, 2020).

Some of the customs and cultural practices followed in Goa are unique. These cultural practices are not found anywhere else. Hence, their uniqueness makes them a potential tourist attraction.

### 5.4.5. Agri-tourism:
Agri-tourism is a “Commercial enterprise at a working farm, or agricultural plant conducted for the enjoyment of the visitors that generates supplemental income for the owner” (http://www.agritourism.in/). Agro-tourism activities include: Outdoor recreation, Educational experiences, Entertainment (harvest festival), Hospitality services (farm stays, guided tours) and On-farm direct sale.

### 5.4.6. Wildlife tourism:
According to United Nations World Tourism Organisation (UNWTO), an initiative of United Nations, **Wildlife Tourism** refers to the observation and interaction with local animal and
plant life in their natural habitats. Wildlife represents biodiversity, essential for the health and well-being of the entire planet. The much-forested villages of Sattari talukas provide unique sites for wildlife tourism. Many villages of Sattari taluka have immense potential for undertaking hinterland tourism. Villages which are located at the foothills of the Sahyadris have a very promising prospects of taking up Eco-tourism activities.

5.5. Proposed Plan for Hinterland Tourism.
The Hinterland Tourism for Sattari block may comprise of **Adventure tourism, Cultural tourism, Agro-tourism and Wildlife tourism.**

5.5.1. Adventure tourism spots:
The village panchayats identified as potential adventure tourism spots are: Cotorem, Dongurli-Thane, Nagargaon. Some of the adventure tourism activities at these sites could be: River rafting, Trekking, Rock-climbing. All these village Panchayats have the uniqueness for undertaking these activities in an organised way; though some of the activities may be restricted only to monsoon season.

5.5.2. Cultural tourism spots:
Dongurli-Thane, Cotorem, Sanvordem village panchayats have been identified as potential Cultural tourism spots. The unique dance forms are *Ghodemodni, Dhalo*. The unique practices followed in these villages provide opportunities to explore the possibilities of undertaking cultural tourism practices.

5.5.3. Agro tourism spots:
The village panchayats identified as potential Agro tourism spots are Guleli, Bhirondem, Cotorem, Sanvordem, Mauxi. These villages have fertile agricultural land. Many of these villages like Bhirondem, Guleli have farm lands which are being cultivated for agro-products like areca nut and banana. Further, the ecology of these villages is such that these sites may
be used to grow various Indian spices. We believe that spices like turmeric, cinnamon, black pepper, nutmeg etc can be grown successfully in these villages.

All this would increase and improve not only the farmland produce of these villages but also would attract tourists, thereby facilitating Agro tourism in the area. Visits to spice gardens is an important recreational cum learning experience for many international travellers. Spices like turmeric, nutmeg, pepper, cinnamon have a huge market in India and elsewhere, especially considering their therapeutic and culinary importance. We also propose the exploration of these villages for the growth of ornamental flowers. High humidity, sufficient water and climate seem suitable for growing ornamental flowers in these villages.

5.5.4. Wild-life tourism spots:
The village panchayats identified as potential Wild-life tourism spots are Cotorem, Guleli, Mauxi, Sanvordem.
Villages of Sattari which are adjoining wildlife protected areas can be tapped for wildlife tourism. This does not mean that the law has to be broken to enter protected areas. Many of these villages have endemic flora and fauna which can be potential attraction for national and international tourists. Already few limited excursions for observing avifauna are being undertaken by few private entrepreneurs.

Table 5. 4: Specialized Tourism Activity Sites Identified as Part of Hinterland Tourism Across the Village Panchayats of Sattari Block

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Type of Hinterland Tourism (based on Eco-tourism concept)</th>
<th>Name of Village Panchayats</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Adventure tourism spots</td>
<td>Kerim, Cotorem, Dongurli-Thane, Nagargaon</td>
</tr>
<tr>
<td>2.</td>
<td>Cultural tourism spots</td>
<td>Dongurli-Thane, Cotorem, Sanvordem</td>
</tr>
<tr>
<td>3.</td>
<td>Agro tourism spots</td>
<td>Guleli, Bhirondem, Cotorem, Sanvordem, Mauxi</td>
</tr>
<tr>
<td>4.</td>
<td>Wild-life tourism spots</td>
<td>Cotorem, Guleli, Mauxi, Sanvordem</td>
</tr>
</tbody>
</table>
5.6. Agroecology Business Model

Agroecology is defined by the Organisation for Economic Co-operation and Development (OECD) as "the study of the relation of agricultural crops and environment." It has also been defined as a holistic approach that foster to reconcile agriculture and local communities with natural processes for the common benefit of nature and livelihoods.

5.6.1. Agroecology Business Potentials in Sattari

Since, most of the villages in Sattari taluka have rich biodiversity, the economic model for the upliftment of these villages should complement and support their natural heritage. Considering the above, adopting an ‘Agroecology’ business model would greatly help the overall development of the villages along with maintaining the ecological balance.

The forested villages of Sattari has unique flora. Many of the naturally growing trees/shrubs have medicinal values in Sattari block. This potential can be tapped without disturbing the ecology of this region. **Harvesting the medicinal plants/shrubs/trees of forested regions would instil a sense of belongingness among the village community thereby enhancing conservation efforts.**

Besides this, there seems to be a huge potential for growing medicinal plants in these villages. One such plant identified by is *Garcinia indica* (kokum). Kokum grows in wild throughout the Western Ghats. It is easy to grow and maintain, known as **Malabar tamarind**, it has culinary as well as industrial uses, while also having remarkable therapeutic values. It can be perfect complement to the concept of agro-ecology.

5.6.2. Proposed Plan for Agroecology Business

We suggest the implementation of this sustainable agroecological model in the villages of Sattari taluka. Following village panchayats have been identified for the potential implementation of this model:

**Coterem, Bhirondem, Guleli, Nagargaon, Mauxi, Sanvordem, Dongurli-Thane, Keri.**
**Plant Nursery:** A plant nursery could be setup at *Poriem* from where the needs of the entire taluka could be met. Requirements of villagers for grafts of fruit bearing / flowering and other plants including seed requirement should be met through this nursery. It is learnt that Poriem has a few nurseries which are catering to the needs of the surrounding areas.

*Table 5.5: Specialized Sites Identified for Agroecology Business and Plant Nursery in the Village Panchayats of Sattari Block*

<table>
<thead>
<tr>
<th>Type of Activity</th>
<th>Village Panchayats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agroecology Business</td>
<td>Coterem, Bhirondem, Guleli, Nagargaon, Mauxi, Sanvordem, Dongurli-Thane, Keri</td>
</tr>
<tr>
<td>Plant nursery</td>
<td>Poreim</td>
</tr>
</tbody>
</table>

5.6.3. Setting up of Agri-Processing Units and Market Yard

As mentioned above the villages of Sattari have huge potential for agro-based business. These agricultural produces need markets as well. Cashew which is one of the chief cash crops produced in this area needs processing. Besides processing, a centralised market yard is needed where these products (cashew, areca nut, vegetable produces, jackfruits, etc.) can be bought and sold.

**For the self sufficiency of the taluka, agro-processing units and a market yard is a must.**

We propose *Pissurlem* panchayat as the site for setting up of such a market yard. The choice of Pissurlem Panchayat is made based on the accessibility and its proximity to major towns of Goa. Pissurlem has the required infrastructure to support such a project. The village is well connected. The movement of products to and from this site seems convenient.

5.6.4. Activities for Individual Villages.

All the above mentioned proposals are the major activities to be followed at the taluka level. Many of those activities are being undertaken in a limited way in the various villages of the taluka. Besides all of the above individual villages of Sattari have their own unique strengths and problems. One of the major problems faced throughout the taluka is the shortage of potable water.
Many of the villages like Pissurlem, Honda, Mauxi have irrigation water issues as well. Most of these villages are dependent on the tap water supplied by PWD.

5.6.5. Proposal for Mitigation of Water Supply Problem

It is a well-known fact that Sattari receives the highest rainfall in Goa. Despite this unique distinction, it is an irony that this taluka faces water shortage. Therefore, we strongly propose water conservation methods to be taken up by each and every village of Sattari taluka.

a. Rainwater harvesting: Most of the rain water is lost as runoff. This all-important natural resource can be conserved through Rainwater harvesting. Rainwater harvesting is a technique or strategy for the collection of rainwater and storing it in the right way for future use. Rainwater harvesting is considered as a very reliable way to conserve water.

b. Groundwater Recharge: Besides the rainwater harvesting to be adopted by individual houses in a village or urban setup, groundwater recharge is an important scientific way of recharging ground water levels. Groundwater recharge is the enhancement of natural ground water supplies using man-made conveyances. It can be achieved through multiple “artificial recharge structures” such as recharge wells, direct borewell recharge, check dams (found in the rural context), etc. The main components of a rainwater harvesting system to recharge groundwater are: Catchment, Conveyance, Filtration and Recharge wells. There are various agencies, both governmental and non-governmental, which provide technical assistance in undertaking such projects. Village panchayats may approach these organisations for the technical know-how of a Groundwater recharge setup.

Some authorities at National level which are directly and indirectly working in this nation-wide initiative for rainwater harvesting are:

- Board Central Ground Water (CGWB)
- Central Soil and Water Conservation Research and Training Institute, Dehradun
- Central Arid Zone Research Institute (CAZRI)
- Ministry of Rural Development
• Ministry of Water Resources
• National Rainfed Area Authority (NRAA)
• Ministry of Drinking Water and Sanitation
• The National Commission on Agriculture.

Goa Government is also contributing towards rainwater harvesting by providing subsidies (Department of water resources, Government of Goa; Ref: https://goawrd.gov.in/schemes-policies/rain-water-harvesting).

We strongly recommend that individual panchayats should take initiative to address this issue in a scientific way. A task force may be constituted to address the issue at the taluka level so as to oversee the implementation of water conservation initiatives by the various villages.

**Alternative Sources of Energy.**

Alternate sources of energy tapping like gobar gas, solar energy through solar panels is being followed in certain village panchayats effectively. More panchayats need to adopt this model at a larger level. There are various schemes/subsidies which are being extended by the Central and State Governments in this regard.

**5.7. Addressing Health Concerns.**

Accessibility to health-care facilities is a universal concern of the villagers in Sattari taluka. This concern is especially pronounced in villages which are remotely located. Overall Government’s efforts in strengthening the health care system in the State of Goa needs to be lauded. In general, the health-care system in the taluka seems to be good. The taluka level community hospital located at Volpoi, the taluka headquarter, with decent healthcare facilities looks after the health care facility of the citizens of Sattari.

The data collected by the individual teams working at the individual panchayat levels indicate that most of the village panchayats have sub-health centres. However, these centres are not very well equipped in terms of availability of doctors and/or medicines. Further, for the villagers inhabiting in the border areas of this taluka, availing the health care facilities at the lone community hospital at Volpoi is genuinely difficult as the hospital is far from the place of
their residence. To mitigate this problem, we propose that health officers from the taluka community hospital should be deputed on field-visits to remote panchayats on regular basis (may be once or twice a week) till such time when doctors are appointed at the various sub-health centres. Appointment of doctors could be in a way that nearby subhealth-centres could share the services of common doctors thereby optimally utilising the human resources.

5.8 Awareness Programmes.
Overall, it is understood that the village panchayat members are unaware about the various schemes available with the Central and State Government for the overall development of the village and citizens. Non-governmental organisations should be roped in to spread awareness about the various developmental schemes among the panchayats. In this regard Government institutions like Government College of Arts, Science & Commerce, Sanquelim, can play the role of facilitator by providing space, expertise and their reach to invite experts/trainers/consultants to interact with village representatives/leaders so that information, scientific know-how and awareness reaches the rightful beneficiaries.

5.9. Funding for the Various Proposals/Projects
We suggest/propose that the funding of the proposed projects could be done on PPP (Public-Private Partnership) model. Implementation of schemes at the taluka level may be undertaken by government agencies/corporations through PPP model. At local village level co-operative model of funding may be planned. Cooperative organizations can greatly benefit the weaker section of the society, rural communities and unorganized economic players. It is with this belief we propose setting up of a cooperative organization to oversee the funding and management of all the revival schemes envisaged for the individual villages of Sattari taluka.
5.10. Co-operative Model.

A nodal Taluka level cooperative society could be formed with one branch each at the 12 village panchayats. Membership/ cooperative investment from all the members from the taluka could be raised for making a corpus to start the movement. Professional help can be sought for setting up of cooperatives to go forward. The proposed cooperative model is shown above in fig. 5.5.

Incidentally, at Mauxi village panchayat in Sattari, this co-operative model has worked very well. An Agriculture cooperative in this village has been a runaway success where 22 members contributed Rs.5000/- each to setup this cooperative society. The society grows chilly, lady finger and other locally grown vegetables. The same model could be emulated in other villages to undertake agro-based business.
We propose that the requirement of the villages for agricultural equipment, seeds, organic manure, etc. should be centrally managed by the taluka level cooperative society. This would ensure fair distribution of resources besides reducing the cost/investment. We suggest cooperative model for even setting up of the market yard and agro-processing units. Financial assistance from NABARD could also be explored.

The procedures for providing soft loans to the cooperatives for the initial setting up of the business could be eased/made friendly so that villagers are encouraged to approach the agencies for loan.

All the above schemes are proposed keeping in mind the strengths of the villages and providing direct opportunities to the youth of the taluka for gainful employment.

5.11. Skill Development and Entrepreneurship Training

Initiatives need to be taken to equip the youth with skills and training. With this in mind, we propose that the infrastructure at Morlem could be used to setup a training school for providing all the necessary training/coaching to the youth of Sattari. Local ICAR unit, Krishi Vigyan Kendra, Old Goa could be consulted to provide scientific training to the villagers for taking up best agriculture practices. Initiative should be taken to explore the possibility of setting-up of Agri-extension centres by ICAR/ Agriculture Department, Government of Goa in the taluka. This would ensure speedy implementation and wider spread of scientific know-how among the farmers of the taluka. For the success of all the proposed schemes it is necessary to have the requisite technical knowledge and know-how.

The potential entrepreneurs need to be acquainted with marketing skills; they need to learn the modern techniques of marketing. The products of the taluka and the uniqueness of the taluka need to reach the world and hence, it is very important to provide the concerned with proper training to undertake these proposed endeavours.
5.12. THE SATTARI FESTIVAL - A Cultural Cum Economic Festival

In this globalised world showcasing the product and talent is very important for effective marketing. We hereby propose that Government should take initiative in organising THE SATTARI FESTIVAL- a Cultural cum Economic Festival to showcase the talent, uniqueness, economic potential in terms of tourism to the entire world. The annual festival could be held in one the villages like Morlem (Considering that they have the requisite infrastructure).

The festival would also be a platform for the citizens from outside the state to explore the varied products of the taluka, besides providing a platform for interaction of various entrepreneurs from all over the country if not the world. We propose something in line with “Hampi Festival” being organised by Government of Karnataka, where the public from wide and far would come to Sattari to see the uniqueness rather than persons from Sattari going outside to showcase their talent/potential.

5.13. Board of Experts.

Scientific know-how is needed to implement many of the schemes. For the sustainable economic success and long-term impact, the schemes need to be implemented in a scientific way. Overall a well-planned and scientific approach is needed to implement the proposed plan.

Experts advice is needed on various agro-based models to be followed. The type of medicinal plants, cash crops, vegetables, ornamental flowers to be grown should be supported by the climatic conditions and the edaphic factors prevailing at the sites need to be well studied before embarking on implementation of such proposals.

Further, ecologically sensitive areas need to be identified and a fair assessment needs to be done about the impact of undertaking such activities on the overall ecology of the region. The purpose is to make the model sustainable both economically as well as ecologically.

As mentioned earlier, the implementation of the development model should complement and support the prevailing ecological conditions so that the balance between the environment and economics is maintained.
Adoption of scientific methods of water harvesting is the need of the hour so that the water woes of the public can be addressed effectively. Ground water recharging is an initiative which needs sustained efforts for long term success. Here again experts have to be roped in to formulate a strategy for the implementation of the proposal.

Overall, we propose that the recommendations should be evaluated on economic and scientific yardsticks for proper implementation.

5.1. Immediate Initiatives during the Present Pandemic.

We propose the following immediate measures to revive the economy during this time of crisis (Covid pandemic) to raise employment avenues for the youth and start production activity so that demand is boosted.

Map 5.3: Map showing villages of Sattari, Taluka. Goa


The various proposals being made are based on the concept of ‘sustainability’. The results of many of these projects may not be seen immediately but would need 2 to 3 years. Accordingly, we propose following immediate goals, short term goals and long-term goals of the entire project. The involvement of various stake holders is essential in realising the proposed plan for economic revival of the villages.
1. As a first step SHGs could be trained to produce sanitizers, masks etc which have a good overall demand these days. This activity will not only provide the necessary material (masks, sanitizers etc) for prevention of spread of Covid-19, but would also provide means to earn income for the people associated with the SHGs. We especially envisage youth to join this movement. We expect the demand for these products to remain high for the next 18 to 24 months. Hence, there would be a ready market for these products.

2. Government agencies including Department of Panchayats could provide loans (from either their own corpus or through their resources) at nominal rates or could even provide the initial seed money to meet the initial expenses to setup units to produce these products.

3. In the present times of pandemic, because of general lockdowns and restricted movement of public, essential commodities like vegetables/milk etc are in shortage. Department of horticulture/civil supplies could buy vegetables/cereals and farm produces directly from the farmers at panchayat level so that the farmers would get security and immediate income. This would further encourage the small farmers to take up growing vegetables with greater vigour.

4. As a contingency measure we propose that the Mahatma Gandhi National Rural Employment Guarantee (MNERGA) scheme should be made more accommodative and widespread. In this difficult time of pandemic where there is loss of income, especially among rural dwellers, the employment guarantee scheme should encompass paying minimum wages to persons working on their own fields/farms.

5. This will make the poor farmer take up farming activity with more vigour besides boosting the demand side of the economy.

5.15. Plan for Agriculture sector and traditional occupation.

A. Immediate Initiatives

1. To communicate effectively with the public/prominent citizens of the taluka about the proposals being made to revive the agriculture sector and its implementation.
2. **Setting up of taskforce** to look into the legal aspect of land ownership details of the sites which have been identified for the implementation of various schemes. Presently the land ownership of the various sites identified for the various Agro-based businesses etc. is not known.

3. **Constituting a scientific committee** to identify the type of proposed activities which are ecologically sustainable in the region. This should include agro-ecology business and agro-tourism feasibility, depending upon the ecology of the area and the supporting climate in the region. The team may include agricultural scientists, members/officials of forest department/academicians/environmentalists/economists.

4. **Constituting an Economic Committee** to look into the aspects of forming cooperatives and preparing a PPP model for the entire taluka. The revenue and responsibility sharing aspects of the entire project needs to be proposed by this committee. The committee should also look into the modalities of organising “Sattari Festival”, development of Market Yard Complex and Ago-processing units.

5. **Youth training**: An action plan needs to be drawn to train the youth of the taluka based on their existing strengths. The modern scientific methods of agricultural practices need to be taught to the young farmers. Concept of poly-houses, greenhouses, mixed cultivation along with floriculture practices should be known to the farmers. The training could be *in situ* or could be held/organised in an institute. We propose the help of local ICAR office / Ela Farm/ Department of Agriculture in this endeavour. Local ICAR office along with agriculture department may be approached to conduct a proper scientific training for the farmers of the region.

Further, the study has brought to the fore the unrecognised and untapped skills of the youth of Sattari taluka. **A formal training for sharpening the existing skills among the youth and the traditional craftsmen** can go a long way in making them self-reliant. The training should include introducing them to mechanisation in terms of design and execution so that the application of their skills can be done at a larger scale. Many of the traditional skills like basket weaving can be taken up at a larger scale probably with the intervention of technology. For example, technology could be used to make fine threads of bamboo or any other weaving material and modern designs. This will reduce
the efforts, apart from increasing the overall efficiency in making the final product. Along with the training on streamlining the production, training may be needed to market the finished products so that they reach a larger market and wider consumer base.

We therefore, propose an integrated approach to train the traditional craftsmen, youth and farmers in making them more efficient in terms of producing goods (including farm produce) and also helping them in making their products reach far and wide.

**B. Short Term Initiatives (Below One Year)**

1. Organisational committees/members (village members, the actual work force needed for the various projects to be taken on board. (In short, grassroot level identification of work force. Only local workers need to appointed).
2. During this period the ground work for the implementation of the schemes should be done. (Hopefully by this time a clearer picture about the funding and revenue sharing would be known to the public and actual implementation could start).
3. After the identification of suitable plant/floral varieties, actual farming activities could start. Similarly, proper identification of traditional skills/artisans of the area should be complete by this time.
4. SHGs and Youth can be encouraged to start the production of the items.

**C. Mid Term Initiatives (1 to 3 years)**

1. Identifying markets for ornamental flowers/medicinal products of plant origin/ tying up with companies for the plant based raw material for medicines.
2. Deciding the Revenue and / responsibility sharing pattern
3. Establishment of Supply chain
4. Marketing the produce to a wider consumer base.
5. Providing storage facilities/ Godowns /cold storage facilities for storing vegetables/fruits/flowers etc.
D. Long term Initiatives (Beyond 3 years).

Sustaining the development of all the environmentally friendly activities, which are in force and establishing the planned enterprises.

We assume that in the next three years and beyond the proposed short term, mid-term initiatives/efforts would start bearing the fruits and the processes/enterprises proposed would be fully functional and running.

It is understandable that starting any processing unit whether agriculture based or otherwise would need time. If the efforts are put in right earnest, with the support of the citizens and government agencies the units would start providing consistent income in the long run. The proposed units would be ready and functional by the time the raw agro-product supply becomes regular from the proposed farm activity.

In addition to this the processing units for which the raw material is already available like, cashew, coconuts, milk etc. would be the first ones to provide steady revenue in the next five years.

5.16. Tourism Sector

A. Immediate Initiatives

1. To communicate effectively with the public/prominent citizens of the taluka about the proposals for boosting tourism in the taluka. This would be first step in building confidence among the citizens.

2. Setting up of taskforce to look into the legal aspect of land ownership details of the sites which have been identified for the implementation of various tourism related schemes. Presently the land ownership of the various sites identified for Eco-tourism, cultural tourism etc. is not clear. This is important to address the land-ownership issues of the citizens of the taluka.

3. Constituting a scientific committee to identify the type of tourism activities which are ecologically sustainable in the region. This should include, eco-tourism feasibility, calculating the carrying capacity of the region and care to be taken towards protecting the ecology of the area. The feasibility of undertaking wildlife tourism keeping in mind
the laid down laws on protected areas should also be considered by the Expert scientific team. The team may include members/officials of forest department/academicians/environmentalists/economists.

4. **Constituting an Economic Committee** to look into the aspects of forming cooperatives and preparing a PPP model for the entire taluka. The revenue sharing aspects of the entire project needs to be proposed by this committee. The committee should also look into the modalities of organising “Sattari Festival”, development of Market yard complex, and Ago-processing unit.

5. **Youth training**: Tourism is a global business. The type of tourism activities being envisaged in the taluka would attract lot of international travellers as well. To cater to such tourists, it is important for the local entrepreneur to know the norms and requirements of international hospitality industry. The local youth need proper training in this discipline. We propose that a proper training module be made for the youth of Sattari to train them in hospitality business.

**B. Short Term Initiatives**

1. Organisational committees/members specifically for tourism sector (village members, for the various projects to be taken on board.

2. During this period the ground work for the implementation of the tourism related proposals should be done. (We expect a clear picture emerging by this time about the funding and revenue sharing which would be known to the public). Thus, the actual implementation of the proposals/projects could start.

3. After proper identification of tourist places the actual work/ infrastructure needed for the projects could start.

4. Simultaneous identification of local wildlife experts. Enrolment of villagers with local knowledge of animals and plants to undertake eco-tourism trails for avifauna/trees/animals etc. should happen.

5. Locals involved with cultural tourism to be given training on hospitality and modern tourism principles.
6. It is important to identify the potential market for marketing the product (in this case the tourist places). Meanwhile modern tools like online marketing need to be undertaken to advertise the places of tourist interest.

7. Keeping the revenue sharing model ready for building confidence among the stakeholders.

8. **Encouraging Home Stay for Tourism** to help villagers to earn an income along with provision of exposure of country living style to the tourists.

C. **Mid Term Initiatives**

1. Strengthening the infrastructure/facilities for better management of tourists and the resources (the tourist places).

D. **Long term Initiatives**

1. Any economic model should be based on the principle of sustainability. It is very important to realise that business is a ‘**Going concern**’ and thus, should be sustainable. In order to meet this challenge, the resources should not be exhausted. It is extremely important to identify the potential of the product (tourism in this case) and to protect and preserve it for sustaining the business.

2. The business model needs to be revived/modified/reinvented depending on the circumstances. The changes in global and local tourism industry and the prevailing geopolitical and socio-economic conditions at the time (03 years and beyond) should shape the new model in our local setup.

3. Thus, all the prevailing conditions at that time (three years and beyond) should be the guiding light for taking proper initiatives.

5.17. **Concluding Remarks.**

Sattari, an important hinterland taluka in the state of Goa, is predominantly an agrarian economy. With having limited industrial setup and in a way isolated from the hustle-bustle of the ‘tourist hotspots’ of Goa, Sattari was not much affected by the nationwide lockdown
implemented due to Covid-19 pandemic. However, the taluka has a few inherent problems which may not be directly related to the outbreak of Covid-19 pandemic.

Our analysis of the reports submitted by the various teams of Government College Sanquelim who worked on the socio-economic revival plans for the individual panchayats of the taluka, has suggested that Sattari taluka is blessed with bountiful natural resources. Though the primary orientation of the taluka is towards agriculture, the region has immense potential for reaping the benefits of its vast natural resources for economic gains, albeit keeping in mind the principle of sustainability.

The suggestions given in this report are primarily based on the reports of the various teams who worked on the individual panchayats. However, data was also drawn from other sources. Gaps in the available data and lack of information on certain variables did limit the overall outcome of our analysis. The suggestions have been made based on the strengths and weaknesses of the various village panchayats. Equitable distribution of resources (both economic and natural) has been suggested so that the benefits of the proposed projects reach every nook and corner of the taluka.

We would like to humbly submit that this report is a modest compilation of suggestions for the overall revival of the socio-economic conditions of the taluka, however, there may be a few social and economic aspects which might have escaped our attention. A wider, much more focused and comprehensive study based on strong dataset is needed to further strengthen the proposals and projections for the taluka. However, we do believe that the proposals made in this report are implementable with the support of all the stakeholders keeping in mind the proper legal and administrative provisions. We strongly believe that Sattari taluka can be developed as a model of self-sufficiency and self-reliance.
Chapter – 6

Tiswadi

Compiled by Dr. Smita Shrivastava

The following findings are of the Village Panchayats of Tiswadi. This taluka comprises of 19 Panchayats. The findings are compiled from the responses obtained from the Elected Representatives, Panchayats functionaries and the citizens who participated in the focused group discussions.

6.1. Suggestions received through Focus Group Discussions

The information received from the citizens during the FGDs are mentioned for the village Panchayats of Tiswadi taluka.

6.1.1. Senior Citizens:

1. Police patrolling for safety of the senior citizens. (Corlim)
2. Senior citizens to be kept engaged for skill development and mentoring of the village youth (Siridao-Palem)

6.1.2. Youth:

1. Personality development, skill development courses. (Agassaim, Azossim-Mandur, Batim, Carambolim, Goa Velha, Goltim-Navelim, Neura and Sao Matias, Siridao-Palem, Old Goa, Curca-Bambolim-Talaulim)
2. Training for handling electrical and mechanical agricultural equipment. (Goltim-Navelim,)
3. Counselling and vocational courses for the village youth by the college. (Agassaim, Azossim-Mandur, Batim, Carambolim, Goa Velha, Goltim-Navelim, Neura, Sao Matias, Merces)
4. Trained in fishing activity
5. Virtual training on poultry farming by ICAR. (Merces, Cumbarjua)
6. Youth are encouraged to work with SHG (Marces)
7. Involvement of youth in Agri-tourism, village tourism. (Merces)
8. Training in the field of dairy farming, piggery farming and poultry and bee keeping, Coconut plucking, plumbing. (Siridao-Palem, Old Goa, Curca-Bambolim-Talaulim)
9. Awareness about the financing schemes. (Siridao-Palem)

6.1.3. Self- Help Groups :
1. Entrepreneurship skills, marketing skills. (Agassaim, Azossim-Mandur, Batim, Carambolim, Goa Velha,Goltim-Navelim, Neura, Sao Matias)
2. Facility to show case and sell their products. (Agassaim, Azossim-Mandur, Batim, Carambolim, Goa Velha,Goltim-Navelim, Neura, Sao Matias)
3. Orchid farming. (Merces)
4. Tie up with local schools to stitch school uniforms.,Mid-day meals (Merces)
5. Training in House nursing. (Merces)
6. Laundry services at the door step. (Merces)
7. Training of handmade soaps, floor cleaners, bio-enzymes, organic compost. (Merces)
8. Trained in quality assurance, marketing, day care centres, artworks. (Merces)

6.1.4. Farmers:
2. Government support to grow paddy. (Batim,)
3. Sluice gates to be repaired. (Agassaim, Azossim-Mandur, Batim, Carambolim, Goa Velha,Goltim-Navelim, Neura and Sao Matias, Taleigao)
4. Revival of Khazan field by growing the local salt resistant variety ‘korgutt’ rice. (Agassaim, Azossim-Mandur, Batim, Carambolim, Goa Velha,Goltim-Navelim, Neura, Sao Matias)
5. Government of Panchayats to hire or take on lease the uncultivated fertile land from the owner of the land to carry out large scale production. (Agassaim, Azossim-Mandur, Batim, Carambolim, Goa Velha, Goltim-Navelim, Neura, Sao Matias)

6. Small scale food processing units. (Agassaim, Azossim-Mandur, Batim, Carambolim, Goa Velha, Goltim-Navelim, Neura, Sao Matias)

7. Mechanical seedling trans planters, modern farm practices. (Agassaim, Azossim-Mandur, Batim, Carambolim, Goa Velha, Goltim-Navelim, Neura, Sao Matias)

8. Encouragement to grow seasonal local fruit plants. (Agassaim, Azossim-Mandur, Batim, Carambolim, Goa Velha, Goltim-Navelim, Neura, Sao Matias, Old Goa)


10. Promotion and training for kitchen gardens by women by using organic manure produced from vegetable waste. (Agassaim, Azossim-Mandur, Batim, Carambolim, Goa Velha, Goltim-Navelim, Neura, Sao Matias, Old Goa, Curca-Bambolim-Talaulim, Taleigao)

11. The Horticulture Department and Department of Agriculture to jointly study and identify the crop or fruit trees that best suited to the village. (Agassaim, Azossim-Mandur, Batim, Carambolim, Goa Velha, Goltim-Navelim, Neura ‘Sao Matias)

12. **Agri-tourism, Horti-tourism.** (Merces,

13. Central point to supply seeds by Panchayat. (Merces,)

14. Community farming. (Merces, Old Goa, Santacruz, Curca-Bambolim-Talaulim, Taleigao

15. Marketability for local produce like Nero, feni, sur. (Curca-Bambolim-Talaulim, Taleigao

16. Leasing out lands for cultivation. (Siridao-Palem)

17. Food processing units. (Siridao-Palem)

18. New High yielding cashew plant sapling in place of old infested ones under the ‘Cashew Plantation Rejuvenation Scheme’ under ‘National Horticulture mission. (Siridao-Palem)
19. Farmers Club. (Cumbarjua, Tivrem Orgao, Betqui-Candola, Old Goa, Santacruz, Curca-Bambolim-Talaulim, Taleigao)

20. Framers with Krishi card should be given facilities to encourage the new generation to take up farming as a career option. (Cumbarjua, Bhoma-Adcolna)


22. Regular visit by the departmental officers and agricultural experts. (Cumbarjua)

23. Integrate all government schemes in one single portal and make them accessible through an app. (Cumbarjua)

24. Fallow paddy fields used for growing vegetables. (Cumbarjua, Old Goa)

25. Streamlining the marketing of agriculture products. (Tivrem Orgao, Bhoma-Adcolna, Santacruz, Curca-Bambolim-Talaulim)

26. Branding of local crops and distribution retailers across India. (Betqui–Candola)

27. Develop and maintain ‘Kulagars’ for the increase in horticulture crops. (Betqui–Candola)

28. Sustainable harvesting of wild medicinal plants and marketing them on portals like eCharak, AYUSH, Ministry. (Old Goa)

29. Mangrove resources for mangrove homestay, mangrove honey and Oyster production. (Old Goa)

30. Bamboo and cane Mission to cultivate and promote bamboos and canes using advanced technologies such as bamboo tissue culture. (Old Goa)

31. Salt Pans to be revived. (Curca-Bambolim-Talaulim)

32. Water Conservation schemes. Such as rain water conservation, renovation of traditional and other water bodies, and reuse of water to be implemented. (Curca-Bambolim-Talaulim, Taleigao)

6.1.5. Fishing:

1. Udupi model “Cage fishing” this model will enable fish farming for self-consumption as well. (Siridao-Palem)
2. Awareness campaign about the Government schemes of the State Fisheries department for mussel and oyster farming. (Siridao-Palem)
3. Awareness of fishing schemes. (Tivrem Orgao)
4. Sweet water pisciculture in low lying uncultivated fields. (Tivrem Orgao)

6.2. **Suggestions received from Elected Representatives.**

**6.2.1. TOURISM**

1. Encourage eco tourism (Goltim Navelim, Se Old Goa)
2. Village tours on foot/bicycles (Goltim Navelim)
3. Soft loans for starting restaurants (Se Old Goa)
4. Set up information kiosks (Se Old Goa)

**6.2.2. INDUSTRY**

1. Encourage canning and food processing industry (Goltim Navelim)
2. Encourage artisans (Goltim Navelim)
3. Fashion design incentives (Goltim Navelim)
4. Workshops for awareness (Goltim Navelim)
5. Subsidy to locals to start small scale business (Se Old Goa)

**6.2.3. AGRICULTURE**

1. Encourage community farming (Goltim Navelim)
2. Restore khazan lands (Goltim Navelim, Neura, Siridao-Palem)
3. Repair bunds (Goltim Navelim, Neura)
4. Soft loans (Goltim Navelim)
5. Free seeds and fertilizers (Goltim Navelim, Se Old Goa)
6. Toddy tapping needs to be revived (Siridao-Palem)

**6.2.4. SERVICES**

1. Soft loans to purchase taxis/two wheelers (Goltim Navelim, Se Old Goa)
2. Training people to take care of medically ill and old people (Se Old Goa)

6.2.5. OTHER OCCUPATION AND LIVELIHOOD ACTIVITIES

1. Local market place required (Se Old Goa)
2. Promotion of fishing and cottage industries (Se Old Goa)

6.3. Suggestions made by Researchers.

6.3.1. AGRICULTURE

1. Aquaponics project (Corlim)
2. Cultivation of local vegetables (Goa Velha)
3. Soil testing and subsequent advice on what crop to be grown to be provided by agriculture dept. (Goa Velha, Santa Cruz, Se Old Goa, Taleigao, Curca-Bambolim-Talaulim)
4. Incentives and subsidies for purchase of seeds, fertilizers and any other machinery (Goltim Navelim, Sao Matias, Santa Cruz, Se Old Goa, Taleigao, Curca-Bambolim-Talaulim)
5. Establish farmers’ clubs (Santa Cruz, Se Old Goa, Taleigao, Curca-Bambolim-Talaulim, Cumbarjua)
6. Assistance for fencing (Cumbarjua, Chodan-Madel)
7. Building, repairs of bandhs (Carambolim, NeurA, Azossim-Mandur, Goa Velha, Santa Cruz, Se Old Goa, Taleigao, Curca-Bambolim-Talaulim, Cumbarjua, Siridao-Palem, Corlim)
8. Kerala model of Contract farming (Chodan-Madel)
9. Training to grow new crops as well as traditional crops (Azossim-Mandur, Goa Velha, Santa Cruz, Se Old Goa, Cumbarjua, St. Estevam)
10. Access to mechanical devices such as harvesters and threshers (Goltim Navelim, Agassaim, Sao Matias, Azossim-Mandur, Goa Velha, Santa Cruz, Se Old Goa, Taleigao, Cumbarjua, Siridao-Palem, Corlim, Chodan-Madel)
11. Create awareness about agricultural schemes (Goltim Navelim, Agassaim, Sao Matias, Santa Cruz, Se Old Goa, Taleigao, Curca-Bambolim-Talaulim, Cumbarjua, St. Estevam, Siridao-Palem)

12. Relaxation on loan repayment when crops fail, destroyed by wild animals (Goltim Navelim, Sao Matias, Santa Cruz, Se Old Goa, Taleigao, Curca-Bambolim-Talaulim)

13. Irrigational infrastructure for multi crop cultivation (St. Estevam, Corlim)

14. High yielding variety of seeds need to be made available (Goltim Navelim, Agassaim, Taleigao, Se Old Goa, St Cruz, Goa Velha, Corlim)

15. Training in vermicomposting (Cumbarjua)

16. Training in organic farming (Goa Velha, Santa Cruz, Se Old Goa, Taleigao, Cumbarjua)

17. Fallow lands must be identified and legal steps taken to ensure that they do not remain uncultivated (Goa Velha, Taleigao, Curca-Bambolim-Talaulim, Cumbarjua, Siridao-Palem)

18. Issue Krishi cards, simplify related procedures (Cumbarjua, St. Estevam)

19. Reviving cashew plantation and distillation (Carambolim, Neura, Azossim-Mandur, Goa Velha)

20. Assurance of buy back policy of all produce, crop insurance (Goltim Navelim, Sao Matias, Goa Velha, Curca-Bambolim-Talaulim, Cumbarjua, St. Estevam)

21. Community farming to be encouraged (Neura, Goa Velha, Santa Cruz, Se Old Goa, Taleigao, Curca-Bambolim-Talaulim, St. Estevam, Corlim, Chodan- Madel)

22. Empower farmers to look after bundhs instead of government (Chodan- Madel)

23. Cultivation of mango, jack fruit should be encouraged (Goa Velha, St. Estevam)

24. Provide traditional Goan seeds (Goa Velha)

25. Small scale food processing units (Goa Velha)

26. Field visit by government officials for data collection and monitoring of cultivation issues (Cumbarjua, St. Estevam)

27. Proper access roads to fields (Cumbarjua)

28. Integrate all agro schemes into one unique card and channelize through app (St. Estevam)
29. Support price verification by VPs/ Krishi Mitra and instant e-transfer of funds. (St. Estevam)

6.3.2. FISHERIES

1. Desilting of fish rearing farms (manas) to be performed on a regular basis (Azossim-Mandur)
2. Subsidies for buying nets, trawlers, machines for motors boats, freezers (Sao Matias, Cumbarjua, St. Estevam, Siridao-Palem)
3. Periodic repairs and maintenance of bandharas (Azossim-Mandur, Curca-Bambolim-Talaulim, Corlim, Chodan- Madel)
4. Construction, repairs of sluice gates (St. Estevam)
5. Introduction of and training in modern techniques of pisciculture to attract youth (Goltim Navelim, Neura, Sao Matias, Azossim-Mandur, Curca-Bambolim-Talaulim, Cumbarjua)
6. Fishermen club to promote retailing through fish parlour (St. Estevam)
7. Setting up of canning factory to enable fish exports (Goltim Navelim)
8. Fish farming at community level (Goa Velha, Curca-Bambolim-Talaulim)
9. Registering fishermen, issuing cards for availing schemes (St. Estevam)
10. Cage fish farming model to be encouraged (Siridao-Palem)

6.3.3. ANIMAL HUSBANDRY

1. Animal husbandry- dairy and poultry (Cumbarjua, St. Estevam, Siridao-Palem, Corlim, Chodan- Madel)
2. Training to set up piggeries (Azossim-Mandur, Taleigao, Curca-Bambolim-Talaulim, Siridao-Palem)
3. Provide subsidies (Corlim)
4. Training to set up poultry farms (Azossim-Mandur, Goa Velha, Taleigao, Curca-Bambolim-Talaulim)
5. Goat rearing (Cumbarjua, St. Estevam, Siridao-Palem)
6. Rabbit farming (Goa Velha)
7. Formulate animal Husbandry policy (Corlim)

6.3.4. SELF HELP GROUPS.

1. Contract for mid-day meals in schools should be given to SHGs (Corlim, Chimbel)
2. Skill based training for SHGs:
3. Pickles (St. Estevam, Corlim)
4. Masala (St. Estevam)
5. Cooking (Azossim-Mandur, Se Old Goa, St Cruz, Curca-Bambolim-Talaulim, St. Estevam, Corlim)
6. Packaging and licensing (Corlim)
7. Stitching (Azossim-Mandur, St. Estevam)
8. Baking (Azossim-Mandur, St. Estevam)
9. Handicrafts (St. Estevam)
10. Home nursing (Se Old Goa)
11. Need financial assistance to carry out production activities (Chodan-Madel)
12. Need a place to conduct their meetings and sell their produce (Azossim-Mandur)
13. Strengthening production-marketing-supply chain (Corlim)
14. Churches and other religious institutions should open up their infrastructural facilities and open spaces to SHGs for organizing exhibitions, fairs and displays (Santa Cruz, Se Old Goa, Taleigao, Curca-Bambolim-Talaulim)
15. Training in branding and marketing (St. Estevam)
16. Awareness of GCCI-Facilitation Centre, MoU with Sparks Technologies (digital baila), Asturi exhibition by GCCI (Corlim)
17. Connect SHGs to industrial estate like in case of Vasco (Corlim)
18. One village one product (Japanese scheme can be followed (Corlim)

6.3.5. SCHEMES

1. Awareness and Implementation of schemes essential for village development (Santa Cruz, Se Old Goa, Taleigao, Curca-Bambolim-Talaulim, Merces, Corlim, Chodan-Madel)
2. Promote, sensitise and channelize existing schemes for MSME by state and central
govt agencies through schools, colleges, youth clubs, etc. (Cumbarjua)
3. Basic awareness on financing schemes by the govt and financial institutions to be
constantly created at school and village level (Siridao-Palem)
4. MNREGS to be promoted and encouraged (Santa Cruz, Se Old Goa, Taleigao, Curca-
Bambolim-Talaulim)
5. Compulsory health check-ups to combat covid (Goa Velha)
6. Create greater awareness of schemes (Carambolim)

6.3.6. FINANCIAL ASSISTANCE
1. Soft/interest free loans to general public keen on starting micro/small scale
business (Chodan- Madel)

6.3.7. RESOURCES
1. More mobile towers needed (Carambolim, Batim,
2. Salt pans to be revived (Santa Cruz, Goa Velha, Se Old Goa, Taleigao, Curca-
Bambolim-Talaulim, Merces)

6.3.8. WATER/ENERGY
1. Rain water harvesting (Goa Velha)
2. Promoting use of solar energy, with the help from GEDA (Goa Velha, Cumbarjua,
Merces)
3. Cleaning of khazan lands and traditional water bodies of the excessive
mangroves; with help from WRD (Goltim Navelim, Neura, Carambolim, Batim,
Goa Velha, Santa Cruz, Se Old Goa, Taleigao, Curca-Bambolim-Talaulim)
4. Excavation of nallahs and springs (Santa Cruz, Taleigao, Curca-Bambolim-
Talaulim, St. Estevam)
5. Revive system of irrigation used during Portuguese regime- wells in fields and
garden wells built in a particular style (Goa Velha)
6.3.9. HEALTH
   1. Focused Health Camps and awareness programmes (Chimbel)

6.3.10. SANITATION
   1. Treatment of contaminated nallah (Carambolim)

6.3.11. CHILDREN
   No suggestions

6.3.12. HOUSEWIVES
   1. Promotion of kitchen garden and production of organic manure (Goa Velha, Santa Cruz, Se Old Goa, Taleigao, Curca-Bambolim-Talaulim)

6.3.13. YOUTH
   1. Skill based training as per requirement (Carambolim, Sao Matias, Goa Velha, Santa Cruz, Se Old Goa, Taleigao, Curca-Bambolim-Talaulim, Chodan- Madel)
   2. Youth clubs to be compulsorily set up (Goa Velha, Santa Cruz, Se Old Goa, Taleigao, Curca-Bambolim-Talaulim)
   3. Workshops and training sessions for enhancing different skills such as acting, dancing, playing instruments, painting (Cumbarjua)
   4. GHRSSIDC should take initiatives to encourage traditional craftsmen (Cumbarjua, St. Estevam, Corlim)
   5. Workshops to be conducted in villages to provide information to youth on various government schemes and assistance in businesses (Neura, Agassaim)
   6. Visit to industrial estate should be organised by panchayat (St. Estevam)
   7. Training and information regarding IT, latest technology (Carambolim, Neura, Corlim)
   8. Training centre for youth imparting training in carpentry, plumbing, electrical, masonry, mechanical skills (Goa Velha, Santa Cruz, Se Old Goa, Taleigao, Curca-Bambolim-Talaulim, Cumbarjua, Corlim)
9. Career counselling (Cumbarjua)

10. Training in driving (Carambolim)

11. Training in catering (Carambolim, Se Old Goa, Corlim)

12. Training in tailoring (Carambolim, Azossim-Mandur, Cumbarjua)

13. Training for start-ups (Carambolim, Neura, Azossim-Mandur, Santa Cruz, Se Old Goa, Taleigao, Siridao-Palem, Corlim, Chodan-Madel)

14. Training for apiary (Cumbarjua, Santa Cruz, Se Old Goa, Taleigao, St. Estevam, Siridao-Palem)

15. Training in home nursing (Se Old Goa)

6.3.14. SENIOR CITIZENS

2. Must be involved in decision making (Santa Cruz, Se Old Goa, Taleigao, Curca-Bambolim-Talaulim)

3. Community centre to provide health care and recreational facilities (Santa Cruz, Se Old Goa, Taleigao, Curca-Bambolim-Talaulim, Corlim)

4. Should be helped in processing of documents for availing financial benefits (Siridao-Palem)

5. May be engaged for skill development and mentoring if village youth in traditional occupations (Siridao-Palem)

6. Regular medical health check-up facility (Corlim, Chimbel)

7. Training in online services to help them pay utility bills, make purchases (Corlim)

6.3.15. EDUCATION

1. Traditional professions eg pottery to be incorporated in academics as Skill Enhancement courses. (Santa Cruz, Se Old Goa, Taleigao)

2. Agriculture related Skill Enhancement courses to be introduced by university (Traditional professions eg pottery to be incorporated in academics as Skill Enhancement courses. (Santa Cruz, Se Old Goa, Taleigao)
6.3.16. MARKETING SUPPORT/LOGISTICS

1. No suggestions

6.3.17. TOURISM

1. Beautification of Carambolim lake (Carambolim)
2. Old heritage houses as guest rooms (Goltim Navelim)
3. Heritage walks (Goltim Navelim)
4. Heritage bicycle tours (Goltim Navelim)
5. Promote eco-tourism (Azossim-Mandur, Goa Velha)
6. Salt extraction can be encouraged as tourism extraction (Batim)
7. Beautification of Batim lake (Batim)
8. Farm tourism (Goa Velha)
9. Agro tourism (Goa Velha)
10. Eco tourism (Santa Cruz, Chodan- Madel)
11. Back water tourism (Santa Cruz, Se Old Goa)
12. Sports tourism (Santa Cruz, Se Old Goa)
13. Spiritual tourism (Cumbarjua)
14. Hinterland tourism (St. Estevam)
15. Cave, creek can be developed as tourist spots (Siridao-Palem)

6.3.18. GOVERNANCE

1. Increase MNREGA job card holders (St. Cruz, Se Old Goa, Taleigao)
2. Market place in the village (Batim, Se Old Goa, Siridao-Palem, Merces, Chodan-Madel)
3. Need to work closely with NGOs and CSR units (Chimbel)
4. Identify and encourage, train also provide financial assistance for traditional occupations (Agassaim, Sao Matias, Azossim-Mandur, Azossim-Mandur)
5. Revival of Khazan Land Development Board to rebuild khazan lands by forming committees with local villagers. (Azossim-Mandur)
6. Monitoring the illegality of tenant associations specifically with regard to auction of sluice gates (Azossim-Mandur)
7. Support policy to salt extractors (Batim)
8. Agricultural subsidies should be granted to the cultivators and not the land owners (Batim)
9. Those cultivating on communidade land should also be eligible for financial support and subsidies (Batim)
10. Presence of a government employee with knowledge of agriculture in the panchayat once a week/rotational basis (Goa Velha)
11. More clarity and information on GST (Corlim)
12. An app/directory where services of various traditional occupations could be listed such as toddy tappers, coconut pluckers, carpenters also electricians, plumbers, weavers etc. (Goa Velha, Merces)
13. Panchayat to create a website to sell the local products of the villagers (Merces, Corlim)
14. Ensure active media partnership to highlight every success story of the village (Merces)
15. Employ villagers and create extensive databases of the village (Merces)
16. Identify disabled people in the village and opportunities for their livelihood (Merces)
17. Identify individuals in the working age group and map their skills (Merces)
18. Regular inspections to legal and illegal establishments (Corlim)
19. Stronger linkages with industrial bodies, national and international philanthropy foundations (Chimbel)
20. Proper warehousing and transport services (Chodan-Madel)
21. Wi-fi enabled village (Chodan-Madel)
Chapter – 7
Canacona Taluka

Compiled by Dr. Aditi Rane

The following findings are of the Village Panchayats of Canacona. This taluka comprises of 7 Panchayats. The findings are compiled from the responses obtained from the Elected Representatives, Panchayats functionaries and the citizens who participated in the focused group discussions.

7.1. Suggestions from Focussed Group Discussions.

7.1.1. Agriculture/Horticulture

1. Provision of regular market to the farmers.
2. Active functioning of farmers’ association.
3. Funds/credit can be pumped into this sector.
4. Promotion of drip/ sprinkler Irrigation facility.
5. Knowledge and guidance with regard to paper work of schemes to be eased with one stop centre or facility.
6. Preservation of traditional seeds & seed bank facility to be opened.
7. Introduction of tribal super market.
8. Cultivation of uncultivated and irrigation for unirrigated land.
9. Cooperatives farming to be initiated.
10. Implementation of modern agriculture techniques e.g. vegan meat production using jackfruit.
11. Alternate employment activities during off season.
12. Medicinal, Ornamental plants, Timber resources and other by-products can be explored.
14. Community farming and community rain water harvesting system should be promoted.
15. Development of basic infrastructure, e.g. warehouse for food grain storage.
16. Marketing skills of farmers have to be improved.
18. Labour issue to be tackled.
19. Supply of quality seeds through cooperative societies or village panchayats in necessary.
20. Chemical fertilizer should be made available at subsidized rate.
21. Advanced loan to the farmers at reasonable rate of interest by regional rural banks should be provided and commercial banks should be directed to provide loans to small farmers on easy terms.
22. For agricultural marketing ware house facilities should be improved, means of transport should be strengthened, regulated markets and cooperative marketing societies should be established and proper price for the produce should be given.
23. Farmers and youth should be educated for adopting mechanised farming and techniques like rotation of crops, training in the use of fertilizer, pesticides should be provided.
24. Market yard (Canacona) has to be regularised since irregularities caused by the private owners are found as yards remain open only during the cashew season and rest of the year they are shut down.
25. A single window facility for farmers to avail schemes and other official work related to farming, which must provide complete information at one go.
26. Some compensation of crop failure/crop destruction by wild animals.
27. There is scope of promoting medicinal gardens.
28. Vermicomposting pits required.
29. Soil testing reports should be made available faster.
30. Construction of bandhara/repair of bore wells is necessary.
31. Promotion of yellow pumpkin, feni processing, kokum, drumsticks, beetle leaves, chillies (Porus), kamta/dongri), curry leaves, lemongrass, elephant foot (Suran).
32. Households should be encouraged to take up work under MGNREGA.
7.1.2. Animal Husbandry

1. Provision of fodder, demarcated land for grazing.
2. Explore avenues in milk and dairy products, traditional poultry farming.
3. Development of cold storage units and Chilling centres.
4. Veterinary services to be made available frequently.
5. Projects supporting livestock should be developed e.g. Poultry, Goatary, Piggery, etc.
6. Sericulture to be promoted.
7. Bee-keeping training to villagers should be carried out.
8. The approach of providing loans to purchase hybrid cows should be accessible to farmers.
9. To increase the meat and milk production, production of green fodder can be enhanced.
10. Direct linkages should be developed amongst the sellers and purchasers of livestock and livestock products.
11. Projects supporting sericulture/poultry/goatary/piggery should be promoted.

7.1.3. Forestry

1. Conservation of forest.
2. Commercial crops should be grown.
3. Encourage the interaction and collaboration of stake holders in forest protection.
4. Encourage the forest sector businesses for increasing economic value and profitability.

7.1.4. Fishery

1. Seasonal fresh water breeding of fish can be encouraged in the seasonal dams which are built on the streams of the village.
2. Construction of jetty at Talpona.
3. Development of cold storage units.
4. Use of community ponds for fisheries.
5. Extension facilities for aquaculture of crab and prawns.
6. Protect and manage fishery resources by application of fish conservation regulations through participatory community-based management systems.

7.1.5. Traditional Artistry/Skills
1. Traditional art and skills can be further promoted by training youth.
2. Traditional knowledge in instrument making, folk art needs to be preserved promoted and encouraged.
3. Encouragement, state support and patronage of ‘Adi Utsav’.

7.1.6. Micro/Small/Medium Enterprise/ Industry
1. Support to be provided in food processing and traditional alcohol making.
2. Skill development in vocational occupations to be provided.
3. Need of cottage and small-scale units e.g. fabrication, construction, dairy based, textiles, etc.
4. Industrialists hailing from Canacona must start small scale industries/enterprises in their village.
5. IDC must organise awareness programs for youth and carry out a survey to understand scenario with regards to industrial development.
6. One Stop centre should be set up to give information of different opportunities in industrial sector to the youth of this village.
7. Awareness programs for youth should be made available for startups/entrepreneurs.
8. Revival of the Shristhal industrial estate.
9. Tribal supermarkets should be encouraged which can generate revenue and employment and promote tribal handicrafts, art etc.
7.1.7. Tourism Hospitality Service Industry

1. Maintenance and restoration of archaeological sites and monuments if given proper attention will attract local and international tourists.
2. Development of roads, facilities like parking, police patrolling on all days near waterfalls.
3. Ecotourism to be promoted by providing washrooms, sanitary facilities and rooms for overnight stay.
4. Adventure tourism, cultural tourism, medical tourism, backwater tourism and water sport to be promoted.
5. Some identified places such as Cabo de Rama fort, beaches requires development to attract international tourists.

7.1.8. Self Help Groups

1. Empowerment and training for SHG members to take up multi-business and collaborative approaches.
2. Marketing and promotion of products made by SHG.

7.1.9. Horticulture

1. Technology led development in horticulture is to be achieved.
2. Value addition in horticulture crops can be done.
3. Modified atmosphere packaging for long storability and transportation of fruits and vegetables.

7.1.10. Others

1. Use of solar and wind energy for power generation to be started.
2. Strengthening of telecommunication and network connectivity.
3. Insect pollinators for improving productivity and quality of crops.
4. Development of varieties for cultivation in non-traditional areas.
5. Bio energy and solid waste utilization to make horticulture more efficient and eco-friendly.

6. Plan, coordinate R&D programs as to serve as knowledge repository in horticulture sector.

7.2. Suggestions by Researchers/core team members:

1. Goa Govt. can undertake the scheme on the lines of Chattisgarh state ‘Godhan Nyay Yojana’ which will procure cow dung from live stock rearers, produce vermicompost and sell it in the market to make animal husbandry more profitable and promote organic agriculture.

2. All the villages of taluka should have proper transportation and communication facility.

3. Attention should be given to protect and preserve the local art, handicrafts, culture, traditions, local variety of crops and overall development of Adivasis.

4. Attention to be provided for the development of beaches which will encourage not only Indian tourist but also international tourist.

5. Toddy-tapping should be given importance as toddy is used locally for making food items like Sannas, etc. and for coconut jaggery which contains iron and is healthy.

6. The procuring of liquor licensing should be done by Panchayats in order to restrict the number of bars in villages.


8. Compulsory registration of SHG/ Mahila Mandals and monitoring their activities.

9. The Ward members must provide necessary information of different Govt schemes to the villagers.

10. The necessity of ‘Night School’ for illiterate villagers inorder to increase literacy and enhance skills amongst them.

11. Councillors appointed by the health dept under Rashtra Kishore/ Kishori Swasthya Karyakram (RKS) can take up counselling sessions for senior citizens in villages.
12. Scope for back water tourism, monsoon tourism, etc.

13. Scope for the development of Health care facilities in villages of this Taluka.

14. Revival of Industrial estates in this taluka is must.
Dharbandora, situated in South Goa district is the 13th taluka / block of Goa consisting of five village panchayats. These five panchayats viz., Dharbandora, Kirlapal-Dabhal, Collem, Mollem and Sancorda belonging to Sanguem sub-division were incorporated into the new sub-division of Dharbandoda that came into existence on 4th April 2012. Being the young taluka, bestowed with variety of natural resources and small size, has potential and opportunity to grow.

**Introduction to Village Panchayats of Dharbandoda**

The Dharbandoda block consists of five village panchayats covering 16 villages (Government of Goa, 2018).
8.1. Demographic Features

Population: The total population of all the five village panchayats of the taluka was 26844 (Census, 2011). The population in the village panchayats ranged between and 7535 (V P Collem - Sigao) 2684 (VP Mollem) with average population of Panchayats being 5369 (Fig 8.2).

![Panchyat wise Distribution of Population in Dharbandoda Block](image)

Source: Respective Village Panchayats

![Panchyat wise Gender Ratio in Dharbandoda Block](image)

Source: Respective Panchayats

Gender Ratio: A vast difference in gender ratio is observed among the panchayats of Dharbandoda taluka. It is highly favourable in Sancordem (1043) and Dharbandoda (1038) while Collem – Sigao exhibited a highly unfavourable gender ratio of 682 due to which the
average gender ratio of the village panchayats in the block was an unfavourable 898 (Fig 8.2). This calls for an investigation into the gender differentials.

8.2. Finances of Panchayats

An analysis of finances of panchayats can assist in fund raising capacity of the panchayats in undertaking various development activities for achieving wellbeing of the villagers. However, there is no proper data available about the sources of revenues and one of the panchayats (Dharbandoda) has shown the amount received from grants and other sources as zero. One of the interesting features of receipts of Dharbandoda block is that the revenues from fees and fines of the Panchayats was the highest (43%) followed by grants (Fig 8.3). The revenue from fees and fines is found astonishingly high in Collem – Sigao Panchayat while it was considerably low in all other panchayats.

*Fig. 8.3: Sources of Revenue of the all Village Panchayats of Dharbandoda Block, 2019-20*

The expenditure figures varied drastically among Panchayats of the block with maximum expenditure incurred by Collem – Sigao Panchayat amounting to Rs. 163.36 lakhs while Sancordem incurred the lowest 33.01 lakh in 2018-19 (Fig. 8.4).
8.3. Basic Amenities and Services

All the panchayats have Anganawadis, Crematorium, Post box in sufficient numbers (Table 8.1). All the panchayats except Collem - Sigao have at least one PHCs/CHCs/ Sub Centre, while private hospitals/ clinics are present only in Collem - Sigao and Kirlapal-Dabal panchayats. There are only two markets and both are reported to be in Collem – Sigao.

Table 8.1: Panchayat-wise Public Utility Services in Dharbandoda Block

<table>
<thead>
<tr>
<th>Village panchayat</th>
<th>Market</th>
<th>Crematorium</th>
<th>Anganwadi</th>
<th>Post Box</th>
<th>Gymnasium</th>
<th>PHCs/CHCs/ Sub Centre</th>
<th>Private Clinics/Hospitals</th>
</tr>
</thead>
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<tr>
<td>Mollem</td>
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<td>5</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Collem - Sigao</td>
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<td>8</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Kirlapal-Dabal</td>
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<td>6</td>
<td>13</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Dharbandora</td>
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<td>5</td>
<td>8</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
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<td>8</td>
<td>1</td>
<td>1</td>
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<td><strong>41</strong></td>
<td><strong>6</strong></td>
<td><strong>5</strong></td>
<td><strong>6</strong></td>
<td><strong>2</strong></td>
</tr>
</tbody>
</table>

Source: Respective Panchayats
8.3.1. Land use pattern

The Land Use Map of Dharbandoda taluka downloaded from the Town and Country Planning, Government of Goa (Map No. 8.2) shows the land use pattern of the taluka. Dharbandoda has forest cover, agricultural land, dam, mining area, rivers, etc.

Map 8.2: Land use Pattern in Dharbandoda Taluka, Goa.

8.3.2. Livelihood Activities

The people in the village panchayats under reference depend mainly on agriculture sector (Table 8.2). The livelihood of some of the villagers has been affected by suspension of mining activities, which was their livelihood.

Table 8.2: Panchayat-wise Livelihood Activities in Dharbandoda Block

<table>
<thead>
<tr>
<th>Village Panchayat</th>
<th>Livelihood Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dharbandoda</td>
<td>Agriculture, mining related</td>
</tr>
<tr>
<td>Collem-Sigao</td>
<td>Agriculture, tourism related to Dudhsagar waterfall, Hit by suspension of mining</td>
</tr>
<tr>
<td>Kirlapal-Dabal</td>
<td>Agriculture, mining related, Animal husbandry, Poultry, small businesses, services.</td>
</tr>
<tr>
<td>Mollem</td>
<td>Agriculture, Animal husbandry, Poultry, and Vocational.</td>
</tr>
<tr>
<td>Sancordem</td>
<td>Agriculture, Fishing / Pisciculture, Animal husbandry, Poultry, Mechanical, Electrical and Services</td>
</tr>
</tbody>
</table>

Source: Economic Revival Reports of Respective Panchayats
8.3. Suggestions for Economic Revival

The present section highlights the issues and suggestions provided by the respective teams of village panchayat level study. One of the suggestions for the overall development was developing Sancordem Village Panchayat as a Smart village.

8.4.1. Agriculture Sector

From the reports, it is revealed that the villages in Dharbandoda taluka are agriculturally suitable. Hence, apart from the common type of crops of Goa like paddy, vegetables, other crops like Cashew, sugarcane, Banana, arecanut are also grown in some of the villages (Table 8.3).

Table 8.3 Panchayat-wise Main Agricultural Products in Dharbandoda Block

<table>
<thead>
<tr>
<th>Village Panchayat</th>
<th>Crops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dharbandora</td>
<td>Paddy, vegetables, sugarcane, pulses and cereals- 1 ward</td>
</tr>
<tr>
<td>Collem Sigao</td>
<td>Paddy, vegetables, coconut, cashew and areca nut pulses and cereals,</td>
</tr>
<tr>
<td></td>
<td>Banana -3 wards, Mangoes and Rubber in one ward each</td>
</tr>
<tr>
<td>Kirlapal-Dabal</td>
<td>Paddy, vegetables, cashew, sugarcane (1 ward) and arecanut (1 ward)</td>
</tr>
<tr>
<td>Mollem</td>
<td>Paddy, vegetables</td>
</tr>
<tr>
<td>Sancordem</td>
<td>Paddy, vegetables, coconut, cashew and areca nut, Banana, Jackfruit</td>
</tr>
<tr>
<td></td>
<td>and black pepper in almost all wards.</td>
</tr>
</tbody>
</table>

Source: Economic Revival Reports of Respective Panchayats

8.4.2. Issues and Suggestions:

The study groups based on their survey and focus group discussions have provided various issues and suggestions pertaining to agriculture in their specific study area (Table 8.4)
<table>
<thead>
<tr>
<th>Village Panchayat</th>
<th>Issues</th>
<th>Suggestions</th>
</tr>
</thead>
</table>
| **Dharbandora**  | • Marketing & distribution of the produces  
• Community farming might involve unforeseen legal issues like encroachment  
• Hinterland farms face wild animals even with solar fencing. | 1. Providing Market information  
2. All type of support for Sugarcane, Cashew and other crops  
3. Easy accessibility of scientific agricultural practices.  
4. Warehousing and cold storage facilities needed.  
5. Cooperative society formation to be encouraged  
6. Implementation of Programmes of large-scale farming by local organisations.  
7. NGOs and local organisations should be engaged to deliver the planned services and projects instead of conventional implementation role of the Government. With the emergence of Panchayat Raj Institutions, the role of NGOs and SHGs may have to be redefined. |
| **Collem Sigao** | • Marketing & distribution of the produces  
• Community farming might involve unforeseen legal issues like encroachment  
• Hinterland farms face wild animals even with solar fencing. | 1. Organic farming, contract farming, Orchid flower plantation  
2. Training for online marketing  
3. Training programmes in Organic farming, vermicompost, community farming by Directorate of Agriculture  
4. Encouragement to Community farming with on field training  
5. Pending lift irrigation project at Vaikikulam |
<table>
<thead>
<tr>
<th><strong>Shigao</strong></th>
<th><strong>Construction of Dholbag Pucca Bandara on priority basis.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>7.</strong></td>
<td><strong>Panni Adva Panni Zirva checks dam /bandara on Amoshival in Ward No. 03.</strong></td>
</tr>
<tr>
<td><strong>8.</strong></td>
<td><strong>Water pumping from the water stacked in the main pit of M/S Hede Mines to the nearby Metawada paddy and vegetable fields through channels.</strong></td>
</tr>
<tr>
<td><strong>1.</strong></td>
<td><strong>Timely compensation by Dapt. Of Agriculture for loss of crops due to wild animal attack.</strong></td>
</tr>
<tr>
<td><strong>2.</strong></td>
<td><strong>Preventing closure of Sanjivini Sugar factory which is a source of livelihood for Sugarcane farmers.</strong></td>
</tr>
<tr>
<td><strong>3.</strong></td>
<td><strong>The land along the National Highway 4A may be brought under sugarcane cultivation.</strong></td>
</tr>
</tbody>
</table>

| **Kirlapal-Dabal** | **Nearly 50% of the irrigated agricultural land in five wards have become waste land due to mining**  
| **-** | **Exploitation by cartel of vegetable vendors**  
| **1.** | **Restoring the agricultural land affected by mining.**  
| **2.** | **Horticulture Corporation should build up logistics to transport local vegetables**  
| **3.** | **Horticulture Corporation needs to go digital and register itself as an e-commerce aggregator connecting local horticulture outlets to the general public.**  
| **4.** | **Horticulture Corporation should take commercial vehicles on lease rather than purchasing new vehicles. The commercial vehicles having borrowed from cooperative** |
banks after verification much be given priority to reduce the stressed assets of lending banks.
5. Government must cultivate the unused land by hiring local labour and with the help of Forest Dept.
6. Encouragement to youths to take up kitchen gardening or backyard gardens

<table>
<thead>
<tr>
<th>Mollem</th>
<th>1. Scope for Agriculture development with support</th>
</tr>
</thead>
</table>
| Sancordem | • Poor agricultural practices  
• Lack of sufficient awareness |
| | 1. Availability of sufficient agricultural land for use  
2. Use of modern techniques  
3. New cropping pattern  
4. Irrigation  
5. Soil improvement |

Source: Economic Revival Reports of Respective Panchayats

a) Tourism
Dharbandoda with beautiful mountains, serene rivers and biodiversity has the potential to be developed as a sustainable tourist destination. The block has three flowing rivers, 31 streams, one waterfall and 18 ponds (Table 8.5).

Table 8.5: Village Panchayat-wise Natural Water Resources in Dharbandoda Block

<table>
<thead>
<tr>
<th>Village Panchayat</th>
<th>Rivers</th>
<th>Streams</th>
<th>Waterfalls</th>
<th>Ponds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mollem</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Collem - Sigao</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Kirlapal-Dabal</td>
<td>3</td>
<td>7</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Dharbandora</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Sancordem</td>
<td>1</td>
<td>15</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3</strong></td>
<td><strong>31</strong></td>
<td><strong>1</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

Source: Respective Panchayats
The Panchayat-wise potentials and suggestions for ecotourism provided by the village panchayat level study teams are represented in the table 8.6.

**Table 8.6: Panchayat-wise Potentials and Suggestions for Ecotourism in Dharbandoda Block**

<table>
<thead>
<tr>
<th>Village</th>
<th>Potentials and suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dharbandora</td>
<td>1. Rich natural resource</td>
</tr>
<tr>
<td></td>
<td>2. Network of Hotels needed</td>
</tr>
<tr>
<td>Collem Sigao</td>
<td>1. Agro-tourism activities- through participatory experiences.</td>
</tr>
<tr>
<td></td>
<td>2. All season tours to Dudhsagar and rope way bridges or other types of bridges to reach Dudhsagar over the river.</td>
</tr>
<tr>
<td></td>
<td>3. Promotion of Jungle safari/ Trekking activities to Dudhsagar and surrounding areas.</td>
</tr>
<tr>
<td></td>
<td>4. Training to local youth for ecotourism activities.</td>
</tr>
<tr>
<td></td>
<td>5. Economic relief to over 430 drivers of tourist vehicles plying within Dudhsagar circuit due to the suspension of tourist related activities.</td>
</tr>
<tr>
<td></td>
<td>6. Construction of lodging facility to the Dudhsagar visitors.</td>
</tr>
<tr>
<td></td>
<td>7. Waiving off forest tour fee and taxes, if any to be paid by the tourist vehicles to Road Transport Dept. during the lockdown and pandemic period.</td>
</tr>
<tr>
<td></td>
<td>8. Providing financial aid to over 400 families affected by closure of waterfall related tourism activities.</td>
</tr>
<tr>
<td></td>
<td>9. Providing drinking water and toilet facilities at suitable places after every 10-12 kms.</td>
</tr>
<tr>
<td></td>
<td>10. Cafeteria, waiting shed, etc. for tourists near waterfall.</td>
</tr>
<tr>
<td></td>
<td>11. Training youth for tourist related activities.</td>
</tr>
<tr>
<td>Kirlapal-Dabal</td>
<td>1. Beautification of Fort, boating facility in Dudhsagar river, and making Bhandhara a picnic spot.</td>
</tr>
<tr>
<td></td>
<td>2. No prominent tourist attraction</td>
</tr>
<tr>
<td>Mollem</td>
<td>1. Better scope for tourism with support</td>
</tr>
</tbody>
</table>
Sancordem

1. Better natural resource base with beautiful mountains and serene rivers
2. Heritage monuments and temples
3. Poor basic infrastructure Can be a good tourist destination

Source: Economic Revival Reports of Respective Panchayats

b) Micro Small and Medium Enterprises (MSME)

Creation of productive employment opportunities with the development of industrial sector. Care needs to be taken to develop the industrial sector with environmental balance. The various suggestions based on the panchayat level reports are listed in table 8.7.

<table>
<thead>
<tr>
<th>Village Panchayat</th>
<th>Suggestions</th>
</tr>
</thead>
</table>
| Dharbandora       | 1. Educate rural entrepreneurs  
|                   | 2. Providing infrastructure and Marketing facilities to rural entrepreneurs and SHGs  
|                   | 3. Establishing ancillary units to support big industries  
|                   | 4. Preparing SWOT analysis of small businessmen for identifying potentials and providing training  
|                   | 5. Establishment of Innovators Club to support youth interested in business.  
|                   | 6. Awards to entrepreneurs achieving extraordinary success.  
|                   | 7. Revival of Sanjeevani Sugar factory for employment and income opportunity for farmers to begin sugarcane production.  |
| Collem Sigao      | 1. Short duration training programme (14 days) for start up procedures and easing the procedure by reducing the paper work involved to make it easier to illiterate and semi-literate entrepreneurs.  
|                   | 2. Creating awareness about the potentials of entrepreneurship.  
|                   | 3. Appropriate steps to resume mining operation with a safe limit.  
|                   | 4. Transfer of royalty share of 2% by state govt. to village panchayas where
the ores are extracted and transported.

5. Revival of closed industrial estate of Picklewadi-Navawada for employment creation.
6. Training in commercial production and marketing of cane furniture, coir based products and handicrafts.
7. Short term training in repairing electronic items, electricians, hospitality and nursing, etc.

<table>
<thead>
<tr>
<th>Location</th>
<th>Issues and Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kirlapal-Dabal</td>
<td>1. Food processing, textiles and service sector can be explored especially involving SHGs.</td>
</tr>
<tr>
<td>Mollem</td>
<td>1. CSR Can be taken up by Dudhsagar Spa Resort and VMS Salgaonkar Company</td>
</tr>
</tbody>
</table>
| Sancordem        | 1. Opportunities for self employment.  
                        2. Need to establish micro and small scale industries                                         |

*Source: Economic Revival Reports of Respective Panchayats*

**8.4.6. Youth Power**

For the future of any economy, the youth should be empowered with appropriate education and skills. Various issues and suggestions related to youths of Dharbandoda provided by the Panchayat-wise study teams are presented in the table 8.8.

**Table 8.8: Panchayat-wise Issues and Suggestions Related to Youths in Dharbandoda Block**

<table>
<thead>
<tr>
<th>Village</th>
<th>Issues and Suggestions</th>
</tr>
</thead>
</table>
| Dharbandora     | 1. Skill based education  
                        2. Internship to be a part of education to rural students.  
                        3. Career guidance and awareness programmes for higher education  
                        4. Village level group formation for Nested institutional approach for continuous training and capacity building.  
                        5. Establishment of Innovators Club to support youth interested in business. |
| Collem Sigao    | 1. Required to commercialise traditional art forms like wood carving with appropriate training and formulating marketing strategy. |
There is upsurge in the unemployment due to mining ban. Therefore, youth needed to be guided and motivated to explore other employment opportunities.

1. Lack of adequate professional training facility.

**Table 8.9: Panchayat wise Self Help Groups (SHGs) in Dharbandoda Block**

<table>
<thead>
<tr>
<th>Village Panchayat</th>
<th>SHGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mollem</td>
<td>34</td>
</tr>
<tr>
<td>Collem – Sigao</td>
<td>102</td>
</tr>
<tr>
<td>Kirlapal-Dabal</td>
<td>44</td>
</tr>
<tr>
<td>Dharbandora</td>
<td>32</td>
</tr>
<tr>
<td>Sancordem</td>
<td>30</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>242</strong></td>
</tr>
</tbody>
</table>

**8.4.7. Self-help Groups (SHGs)**

The SHGs in Dharbandoda block are 242, which is extremely large especially in Collem – Sigao panchayat (Table 8.9). These SHGs if strengthen can contribute hugely for the revival of the economy. The members of SHGs should be oriented and trained in business development, record keeping, marketing, etc. Food processing, textiles and service sector can be explored.

**8.5. Proposals and Action Plan for Economic Revival**

The first section of this chapter presents a comprehensive proposal for the economic revival of the Dharbandoda taluka based on the issues and suggestions highlighted by the Panchayat level study teams for economic revival. The second section provides action plan for the economic revival of the villages of the block.

**Proposals**

In this section issue-based proposals are made for the revival of the villages in Dharbandoda block.
8.5.1. Agriculture
Considering the agricultural potential of the Dharbandoda block we propose following for the revival and development of the villages.

8.5.2. Agroecology Business Model
Agroecology is a holistic approach that fosters to reunite agriculture and local communities with natural processes for the common benefit of nature and livelihoods.

The village panchayats of the block have been identified for the implementation of this model are:

Collem-Sigao and Sancordem

Alternative Farming Model

Cooperative farming: As per the reports, some village panchayats like Kirlapal-Dabal, Sancordem have large unutilised land, which can be used for floriculture, Green house, horticulture, etc. Cooperative farming can be practiced in all the villages, especially where there is a land ownership issue.

Contract farming: Contract farming can be encouraged as an alternative farming to guarantee a return to the farmers and to encourage them to utilise the land rather than keeping it idle.

Community farming: Encouragement to Community farming with on field training can help the farmers to sort out the issues of labour and mechanised agriculture.

8.6. Other Proposals

1. Restoring the agricultural land affected by mining.
2. Revival of closed industrial estate of Picklewadi-Navawada for employment creation.
3. Revival of Sanjeevani Sugar factory to generate / protect employment and income opportunity for sugarcane producers.
4. Completion of Pending lift irrigation project at Vaikikulam Shigao
5. Construction of Dholbag Pucca Bandara and Panni Adva Panni Zirva check dam /bandara on Amoshiva on priority basis.
6. Water pumping from the water stacked in the main pit of M/S Hede Mines to the nearby
7. Metawada paddy and vegetable fields through channels.

8.6.1. Setting up of Agro-Processing Units and Market Yard
The development of agro-processing units will boost agriculture sector. One of the concern of the farmers’ is getting better price for their produce. A centralised market yard in the block can ease the marketing issues of the farmers.

Ecotourism
There is potential for Agro-tourism, Adventure tourism, Nature tourism in the villages of Dharbandoda. This potential can be tapped with systematic and scientific approach for sustainable tourism development.

Activities for Individual Villages
1. Rainwater harvesting: Rainwater harvesting is considered as a very reliable way to conserve water. A large volume of rain water can be conserved through Rainwater harvesting.

2. Groundwater Recharge: Groundwater recharge is an important technique of recharging ground water levels. Groundwater recharge can be achieved through multiple “artificial recharge structures” such as recharge wells, direct borewell recharge, check dams, etc.

8.6.2. Skill Development and Entrepreneurship Training
The potential entrepreneurs need to be acquainted with marketing skills; they need to learn the modern techniques of marketing. The products of the taluka and the uniqueness of the taluka need to reach the world and hence, it is very important to provide the concerned with proper training to undertake the proposed endeavors.
Village level group formation for **Nested Institutional Approach** for continuous training and capacity building would be beneficial.

**Board of Experts**

Scientific know-how is needed to implement many of the schemes. For the sustainable economic success and long-term impact, the schemes need to be implemented in a scientific way.

**Expert advice** is needed on various **agro-based models** to be followed. The type of medicinal plants, cash crops, vegetables, ornamental flowers to be grown should be supported by the climatic conditions and the edaphic factors prevailing at the sites. Therefore, it is essential to do ground level study before embarking on implementation of such proposals.

Further, **ecologically sensitive areas** need to be identified and a fair assessment needs to be done about the impact of undertaking such activities on the overall ecology of the region. The purpose of this would be to make the **model sustainable both economically as well as ecologically**.

The implementation of the development model should complement and support the prevailing ecological conditions so that the balance between the environment and economics is maintained.

Adoption of scientific methods of water harvesting is the need of the hour so that the water woes of the public can be addressed effectively. Ground water recharging is an initiative which needs sustained efforts for long term success. Here again experts have to be roped in to formulate a strategy for the implementation of the proposal. Therefore, we propose that the recommendations should be evaluated on economic and scientific yardsticks for proper implementation.

**8.7. Action Plan**

The various proposals made are based on the concept of ‘sustainability’. The results of many of these projects may not be seen immediately but would need 2 to 3 years. Accordingly, we propose following immediate, short term, mid-term and long-term initiatives to implement the
proposed activities. The involvement of various stakeholders is essential in realising the proposed plan for economic revival of the villages.

8.7.1. Immediate Initiatives during the Present Pandemic

We propose the following immediate measures to revive the economy during this time of crisis (Covid pandemic) to raise employment avenues for the youth and start production activity so that demand is boosted.

- **Preparation of sanitizers, masks etc.:** There are a large number of SHGs in the villages of Dharbandoda. As a first step, these SHGs could be trained to produce sanitizers, masks etc. which have a good demand these days. This activity will not only provide the necessary material (masks, sanitizers etc) for prevention of spread of Covid-19, but would also provide **means to earn** income for the people associated with the SHGs. We especially envisage youth to join this movement. We expect the demand for these products to remain high for the next 18 to 24 months. Hence, there would be a ready market for these products.

  Government agencies including Department of Panchayats could provide loans (from either their own corpus or through their resources) at nominal rates of interest or could even provide the initial seed money to meet the initial expenses to setup units to produce these products.

- **Department of horticulture/civil supplies** could buy vegetables/cereals, milk, and farm produces directly from the farmers at panchayat level so that the farmers would get security and immediate income. This would further encourage the small farmers to take up growing vegetables with greater vigour.

- **E-commerce:** Horticulture Corporation needs to go digital and register itself as an e-commerce aggregator connecting local horticulture outlets to the general public.

- **Hiring of Commercial Vehicle:** Horticulture Corporation and other government agencies should take commercial vehicles on lease rather than purchasing new vehicles. Due to pandemic many of the commercial vehicles are idle and hence hardly any earning for livelihood.
• **MGNREGA:** As a contingency measure we propose that the **Mahatma Gandhi National Rural Employment Guarantee (MNERGA)** scheme should be made more accommodative and widespread. In this difficult time of pandemic where there is loss of income, especially among rural dwellers, the employment guarantee scheme should encompass paying minimum wages to persons working on their own fields/farms. This will make the poor farmer take up farming activity with more vigour besides boosting the demand side of the economy.

**8.7.2. Plan for Agriculture sector and traditional occupation**

**a) Immediate Initiatives**

1. To communicate effectively with the public/prominent citizens of the taluka about the proposals being made to revive the agriculture sector and its implementation.

2. **Setting up of taskforce** to look into the legal aspect of land ownership details of the sites which have been identified for the implementation of various schemes. Presently the land ownership of the various sites identified for the various Agro-based businesses etc. is not known.

3. **Constituting a scientific committee** to identify the type of proposed activities which are ecologically sustainable in the region. This should include agro-ecology business and agro-tourism feasibility, depending upon the ecology of the area and the supporting climate in the region. The team may include agricultural scientists, members/officials of forest department/academicians/environmentalists/economists.

4. **Constituting an Economic Committee** to look into the aspects of forming cooperatives and preparing a PPP model for the entire taluka. The revenue and responsibility sharing aspects of the entire project needs to be proposed by this committee. The committee should also look into the modalities of organising “Dharbandoda Festival”, development of **Market Yard Complex** and **Agro-processing units**.

5. **Youth training:** An action plan needs to be drawn to train the youth of the taluka based on their existing strengths. The modern scientific methods of agricultural practices need to be taught to the young farmers. Concept of poly-houses, greenhouses, mixed
cultivation along with floriculture practices should be known to the farmers. The training could be in situ or could be held/organised in an institute. We propose the help of local ICAR office / Ela Farm/ Department of Agriculture in this endeavour. Local ICAR office along with agriculture department may be approached to conduct a proper scientific training for the farmers of the region.

b) Short Term Initiatives (Below One Year)
1. Organisational committees/members (village members, the actual work force needed for the various projects to be taken on board. (In short, grassroot level identification of work force. Only local workers need to appointed).
2. During this period the ground work for the implementation of the schemes should be done. (Hopefully by this time a clearer picture about the funding and revenue sharing would be known to the public and actual implementation could start).
3. After the identification of suitable plant/floral varieties, actual farming activities could start. Similarly, proper identification of traditional skills/artisans of the area should be complete by this time.
4. SHGs and Youth can be encouraged to start the production of the items.

c) Mid Term Initiatives (1 to 3 years)
1. Identifying markets for ornamental flowers/medicinal products of plant origin/ tying up with companies for the plant based raw material for medicines.
2. Deciding the Revenue and / responsibility sharing pattern
3. Establishment of Supply chain
4. Marketing the produce to a wider consumer base.
5. Providing storage facilities/ Godowns /cold storage facilities for storing vegetables/fruits/flowers etc.

d) Long term Initiatives (Beyond 3 years)
Sustaining the development of all the environmentally friendly activities, which are in force and establishing the planned enterprises. We assume that in the next three years and
beyond the proposed short term, mid-term initiatives/efforts would start bearing the fruits and the processes/enterprises proposed would be fully functional and running.

It is understandable that starting any processing unit whether agriculture based or otherwise would need time. If the efforts are put in right earnest, with the support of the citizens and government agencies the units would start providing consistent income in the long run. The proposed units would be ready and functional by the time the raw agro-product supply becomes regular from the proposed farm activity.

In addition to this the processing units for which the raw material is already available like, cashew, coconuts, milk etc. would be the first ones to provide a steady revenue in the next five years.

8.7.3. Plan for tourism Sector

a) Immediate Initiatives

1. To communicate effectively with the public/prominent citizens of the taluka about the proposals for boosting tourism in the taluka. This would be first step in building confidence among the citizens.

2. **Setting up of taskforce** to look into the legal aspect of land ownership details of the sites which have been identified for the implementation of various tourism related schemes. Presently the land ownership of the various sites identified for Eco-tourism, cultural tourism etc. is not clear. This is important to address the land-ownership issues of the citizens of the taluka.

3. **Constituting a scientific committee** to identify the type of tourism activities which are ecologically sustainable in the region. This should include, eco-tourism feasibility, calculating the carrying capacity of the region and care to be taken towards protecting the ecology of the area. The feasibility of undertaking wildlife tourism keeping in mind the laid down laws on protected areas should also be considered by the Expert scientific team. The team may include members/officials of forest department/academicians/environmentalists/economists.
4. **Constituting an Economic Committee** to look into the aspects of forming cooperatives and preparing a PPP model for the entire taluka. The revenue sharing aspects of the entire project needs to be proposed by this committee.

5. **Youth training**: Tourism is a global business. The type of tourism activities being envisaged in the taluka would attract lot of international travellers as well. To cater to such tourists, it is important for the local entrepreneur to know the norms and requirements of international hospitality industry. The local youth need proper training in this discipline. We propose that a proper training module be made for the youth of Dharbandoda to train them in hospitality business.

b) **Short Term Initiatives**

1. Organisational committees/members specifically for tourism sector (village members, for the various projects to be taken on board.

2. During this period the ground work for the implementation of the tourism related proposals should be done. (We expect a clear picture emerging by this time about the funding and revenue sharing which would be known to the public). Thus, the actual implementation of the proposals/projects could start.

3. After proper identification of tourist places the actual work/ infrastructure needed for the projects could start.

4. Simultaneous identification of local wildlife experts. Enrolment of villagers with local knowledge of animals and plants to undertake eco-tourism trails for avifauna/trees/animals etc. should happen.

5. Locals involved with cultural tourism to be given training on hospitality and modern tourism principles.

6. It is important to identify the potential market for marketing the product (in this case the tourist places). Meanwhile modern tools like online marketing need to be undertaken to advertise the places of tourist interest.

7. Keeping the revenue sharing model ready for building confidence among the stakeholders.
8. **Encouraging Home Stay for Tourism** to help villagers to earn an income along with provision of exposure of country living style to the tourists.

c) **Mid Term Initiatives**

Strengthening the infrastructure/facilities for better management of tourists and the resources (the tourist places).

d) **Long term Initiatives**

Any economic model should be based on the principle of sustainability. It is very important to realise that business is a ‘**Going concern**’ and thus, should be sustainable. In order to meet this challenge, the resources should not be exhausted. It is extremely important to identify the potential of the tourism and to protect and preserve it for sustaining the business. The business model needs to be revived/modified/reinvented depending on the circumstances.

Thus, all the prevailing conditions at three years and after should be the guiding light for taking proper initiatives.

**8.8. Concluding remarks.**

Dharbandoda, the youngest taluka of the state of Goa was carved out of parts of Sanguem and Ponda taluka in the year 2012. It is a hinterland taluka which is bordered by the state of Karnataka in the east and shares border with Goa’s Ponda, Sattari and Sanguem talukas on other sides.

This report is an attempt to propose a revival plan for the taluka which like other talukas is reeling under the effects of Covid-19 pandemic. Overall, this hinterland taluka was not much affected during the initial stages of nationwide lockdown implemented for preventing Covid-19 spread.

The proposals made in this report have been made after analysing the reports prepared by the various College teams of Multi-faculty College Dharbandoda on the economic revival of individual panchayats of the taluka. Being a relatively new taluka, information and data for this
taluka available with the various agencies is scarce and not up to date. Needless to say, that
the existing constraints of availability of a robust data appears to be the biggest limitation of
our study. Nevertheless, we have analysed all the available information/data to arrive at the
proposals being made for this taluka with regards to its economic revival. Overall, we do feel
the need of a more detailed study based on stronger dataset to further strengthen the
proposals for the economic revival of the taluka.
Chapter – 9
Mormugao

Compiled by Dr. Prita Mallya

The following findings are of the Village Panchayats of Mormugao. This taluka comprises of 10 Panchayats. The findings are compiled from the responses obtained from the Elected Representatives, Panchayats functionaries and the citizens who participated in the focused group discussions.

9.1. SWOC ANALYSIS OF MORMUGAO TALUKA

The SWOC analysis of the ten Village Panchayats in Mormugao Taluka are presented below.


1. **Coast**: Some Panchayats in the Taluka lie along the coastline, making tourism an important source of income.
2. **Tourism**: Most of the population is involved in the tourism business through taxis, guest houses, homestays, and hotels. Also, the taluka has biodiversity heritage sites.
3. **Farming**: Floriculture, apiculture, hydroponic farming can be considered considering the favorable environment.
4. **Fishing**: Fishing is being practiced in traditional form and also with the latest well-equipped trawlers.
5. **Local Committees**: Most Panchayats in the Taluka have their own local youth clubs, farmers clubs, and economic development committees that make implementation and awareness creation of any activity easy.
6. **Biodiversity**: The taluka is a biodiversity hotspot. Many heritage sites act as tourism attraction points.
7. **Industrial estate**: The Verna Industrial Estate provides employment to the youth and funds to the local Panchayat under CSR.
9.1.2. Weaknesses.

1. **Lack of training:** Ward members are not trained for handling/managing the social developmental activities in their respective wards (lack of knowledge about working of a Panchayat). Youth in the villages also lack industry-related skills, making them unemployable.

2. **Local participation:** Most Panchayats in the taluka have no SHGs, recreation centers, or vocational centers in the villages, giving no scope for innovations and leisure activities. Where such groups exist, they are not active.

3. **The brain drain of youth:** Due to lack of gainful employment opportunities, many youngsters are leaving the village and seeking employment either abroad or in other States. Further, the younger generation is not interested in agriculture due to the low returns, which are not commensurate with the work and risk associated with this critical economic activity.

4. **Local Market:** There is no weekly bazaar where local produce could be sold in most of the Panchayats. Often the produce is in very small quantities – the surplus after self-consumption. A local market could help households sell such produce profitably.

5. **Infrastructure:** Most tourist spots lack basic infrastructure facilities like toilets, benches, walking tracks, and dustbins for segregated waste.

6. **Water supply:** The supply of water in most of the area is irregular, making residents dependent on tankers for drinking water.

7. **Natural adversities:** Flooding of low-lying areas especially during the rainy season; further there is also soil erosion happening around the coastal belt.

9.1.3. Opportunities.

1. **Entrepreneurship training:** There are educated youth, middle-aged men, and ladies who are interested in taking up various entrepreneurial activities provided they are given training. There is a scope for creating awareness of various Govt. schemes and growth prospects among the citizens. The existing SHGs can be strengthened by providing the required training and creating a market for their products. The youth
of the villages can take up internship and part-time job opportunities at the village level.

2. **Development of eco-tourism:** The Panchayats with support of the Department of Tourism can develop several sites in the villages as tourist attractions.

3. **The exploitation of solar energy:** The Panchayat can set up a solar power plant for their use and further supply to nearby households.

4. **The local market for local produce:** The need for a market for local produce cannot be ignored and can be tackled by setting up a weekly farmers’ market or pop up Bazar.

5. **Compost, e-waste, and garbage plant:** The Panchayat can set up a compost plant or wet garbage disposal plan to tackle the garbage issue in the Panchayat. Dry waste & e-waste may be disposed of by tying up with local recyclers or can be taken up as a business by some locals.

6. **Village infrastructure:** There is an urgent need for a library, recreation facility, medical assistance at the village level. The villages also need grounds and gymnasium considering the interest of youth in fitness.

7. **Departmental Scheme:** Agriculture department and Goa Horticultural Corporation should arrange to buy the vegetables and fruits grown locally, and sell them through its horticultural outlets. This will reduce the demand for vegetables coming from other states and make Goa self-sustainable to some extent. This will also create confidence in the young farmers who are otherwise hesitant to take up agriculture as a full-time occupation.

8. **Local database:** A digital database can be created to know the availability of skilled people such as toddy tappers, farmers, coconut pluckers, tailors, and mechanics in the villages.

9. **Workshops:** Training in Organic & hydroponic farming to be provided to the farmers by the government as organic farming has been gaining popularity and by focusing on certified organic crop cultivation, farmers can fetch a good source of revenue. Further pearl farming can also be promoted.
10. **Tourism:** The Government needs to frame strict laws to prevent the mushrooming of unregistered establishments that are not authorized to operate as guest houses to bring them under the purview of the Government.

11. **Water supply:** The sluice gate and check dams need to be constructed to reduce the water scarcity issue. Rainwater harvesting can also be considered considering the amount of rain in the State.

### 9.1.4. Challenges.

1. **Shortage of labour and dependence on migrant workforce:** Shortage of labour is a major issue as the educated youth from the village are unwilling to take up work involving physical labour such as in agriculture. Labour scarcity and high labour cost force farmers to adopt plantation tree crops instead of labour-intensive field crops. This issue has been exacerbated by the pandemic, with many migrant labourers leaving the State and returning to their homes.

2. **Sanitation facilities:** No proper sewerage facilities and non-maintenance of soak pits by the residential complexes leads to contamination of the nearby wells and groundwater. The garbage disposal plants in various complexes are not being effectively managed.

3. **Documentation to apply for government schemes:** The farmers find it difficult to apply for Government schemes due to the unavailability of documents or difficulty in preparing documentation and other formalities.

4. **Limitation of authority:** The limited authority that it has, mitigates the Panchayat’s ability to collect revenue and also to impose

5. **Tourism:** Frequent renewals and cumbersome procedures to avail tourist taxi permits and shack permits leading to lack of business since it is a seasonal occupation. The introduction of app-based taxi services has posed a threat to local taxi operators.
9.2. Suggestions for economic revival.

The suggestions from the Economic Revival Plans of all the thirty Panchayats have been compiled to prepare the Suggestions for the Economic Revival of Salcete Taluka. These have been arranged sector-wise.

The suggestions are largely based on

1. Focussed Group Discussions that College faculty members had with groups such as farmers, fisherfolk, Self-Help Groups, youth, villagers dependent upon tourism, etc.
2. Discussions with Ward members

9.2.1. Agriculture.

A. Immediate.

1. Farmers should be issued Health Cards similar to the ones given to the Construction Workers, as such benefit will cover them and their families from various medical emergencies.
2. Village Panchayats should ensure the formation of Farmers’ Clubs so as to avail schemes provided by the State Government.
3. To combat the menace of stray cattle trespassing and destroying crops, farmers should be provided with financial aid for fencing their fields as the cost involved is exorbitant.
4. Vermicomposting should be developed and implemented at the Panchayat level.

B. Short period of time (Within 1 year)

1. Community farming among the villagers should be encouraged as local communities can invest directly in their food system, secure farmland for the future, help create sources of healthy, locally produced food, and enjoy social, economic, environmental, and agricultural benefits.
2. As far as the sale of agricultural produce is concerned, the interference of middlemen should be avoided so that farmers get a better price for their produce.
3. Farmers should be given training in Organic Farming, which has been gaining popularity and by focussing on certified organic crop cultivation, farmers can fetch a good source of revenue.

4. Grazing fields need to be restored to ensure free-range grazing and availability of fodder

5. Panchayats can set up weekly local markets and pop up bazaars which will enable farmers to get a reasonable price for their produce.

6. Certified seed production is organized through the State Seed Corporation Department, Agricultural Farms, Co-operatives, etc. The distribution of seeds is undertaken through several channels i.e. department outlets at block and village levels, cooperatives, an outlet of seed corporation, and also private agencies. These channels should be more effective and should reach more farmers.

7. Rainwater harvesting should be encouraged as it would solve the problems of water scarcity in those areas where water issues prevail.

8. Less capital intensive enterprises like poultry, dairy, piggery, apiculture can be encouraged by the Government through local cooperatives.

9. Government agencies should be asked to take up Soil testing and recommend the appropriate crops to be grown based on soil and other conditions.

10. The members of the Majorda-Utorda-Calata Panchayat have asked that the 20 wells under the Panchayat need immediate desilting, repair and maintenance.

11. The release of waste effluents from the Verna Industrial Estate into the fields of neighbouring villages in Quellosim and Verna is damaging the soil and crops. Immediate measures should be taken to stop such discharge.

C. Medium time period (Within 1-3 years)

1. Mechanized farming should be promoted to increase farm productivity; the Govt should provide all required equipment at subsidized rates to promote mechanized farming. The Panchayat should have all the machinery/equipment in a single place, which can then be rented out to farmers. Mechanization is possible only if landholdings are sufficiently large – thus community farming is the only solution.
This is particularly true now, when migrant workers have returned home and there is no farm labour available

2. More ring wells are needed in fields to overcome the issue of water scarcity

**9.2.2. Fisheries.**

**A. Immediate.**

1. Subsidy to fishermen should be raised and resources disbursed to them in a timely manner to increase their work productivity.

2. The Coast Guard should stop trawlers from venturing too close to the sea-shore to avoid harm to the fish spawn, protect the breeding of clams, and ensure that fishing is carried out on a sustainable basis.

3. Stringent measures need to be adopted to implement the ban on LED fishing.

**B. Short period of time (Within 1 year)**

1. There is a clear need for the demarcation of fishing areas for the traditional fishermen.

2. Weather warning information has to be disseminated to the villagers and an appropriate medium should be set up in the villages coming under the coastal belt.

3. Fishermen need a ramp to move their boats to safer areas in case of cyclones, etc.

4. The fishermen from Santrem locality require a proper, well-lit facility for landing their boats; the area demarcated for the purpose has been encroached by a rich and influential landowner / resort owner. It should be restored to its proper use at the earliest.

5. The Govt of Goa should protect the breeding of clams in Chicalim bay, and ensure that clam fishing is carried out on a sustainable basis.

**C. Medium time period (Within 1-3 years)**

1. Pearl farming should be incentivised, as it promotes environmental conservation and would also contribute as a source of revenue.
2. Set up of fish and meat processing units by the government so that export quality product is made available to locals.

9.2.3. Tourism.

A. Immediate
1. The government needs to maintain a strict check on guesthouses, and permit only registered guesthouses to function.
2. The government should construct stone-barricades on the beach to avoid soil erosion.

B. Short period of time (Within 1 year)
1. The payment of Road Tax, Insurance, Passenger Tax, Fitness Certificate could be extended over a longer period and some discount and deduction to be given for the same.

C. Medium term (1-3 years)
1. Ecotourism & Heritage tourism to be promoted to generate revenue for the village as well as the economy
2. The bay area of Chicalim should be added to Goa’s biodiversity heritage sites, to ensure its preservation and conservation
3. The Kesarval Spring in the Quelossim Panchayat has a lot of tourist potential. Proper planned development of the spring as a tourist site will provide the Panchayat with a source of income and also generate livelihood for the residents of the village.

9.2.4. Self Help Groups.

A. Immediate.
1. An association could be formed to supply home-cooked food to the industries in the purview of the Panchayat.

B. Short period of time (Within 1 year)
3. Training facilities should be provided to inculcate and upgrade the skills of the group members.
4. An association could be formed to supply home-cooked food to the industries in the purview of the Panchayat.
5. Although the Directorate of Women and Child Development has conducted several workshops for the SHG members, but the SHGs have not taken followed up on any of this training.
6. The SHG members lack motivation and members do not have a common goal.

C. Medium time period (Within 1-3 years)
1. Marketing facilities for the sale of produce of SHGs to be provided by the government either in the form of a stall, shop, or exhibitions in the village and nearby vicinity.

9.2.5. Others.
A. Immediate.
2. Industries should reduce the number of years of work experience required while recruiting local candidates.
3. The issue of attitude among the youth regarding taking up low salaried jobs can be handled by colleges by giving students the required guidance.
4. Roadside drains need to be covered immediately

B. Short period of time (Within 1 year)
2. Youth can be motivated to participate in fishing and agricultural activities through encouragement and awareness of schemes available.
3. House numbers need to be assigned to houses located on Communidade land which will help the Panchayat to generate revenue in the form of house tax.
4. There is a need to appoint a Gram Sevak who can act as a mediator between the farming community and the government authorities.
5. There is no waste segregation or proper waste disposal happening in any of the villages. As a result, people are throwing their garbage along the roadsides or in the fields, making the villages dirty. Villagers would like to be trained in garbage segregation, composting, etc.

6. The Mahila Mandal in Chicalim, which is quite active, should be permitted to be converted into a SHG.

C. **Medium period (1-3 years)**

1. Encouragement to unemployed or to farmers during offseason to work under MGNREGA.

2. An electronic database should be created to know the availability of skilled people such as toddy tappers, farmers, coconut pluckers, tailors, and mechanics in the villages.

3. Sewage treatment plants are needed urgently.
Chapter – 10

Ponda

Compiled by Dr. Aditi Rane.

The following findings are of the Village Panchayats of Salcete. This taluka comprises of 19 Panchayats. The findings are compiled from the responses obtained from the Elected Representatives, Panchayats functionaries and the citizens who participated in the focused group discussions.

10.1. Suggestions from Focus Group Discussions:

10.1.1. Agriculture.

a) Proper documentation of land holdings, subsidies to be provided to actual farmers is required.

b) Problem of destruction of crops by wild animals, wild monkeys should be looked into.

c) Communidade land should be given to farmers on lease for promoting eco-tourism, spice plantations, ecological resorts etc.

d) Training in community/organic farming, coconut climbing, grass cutting is required.

e) Preservation of our local variety of seeds in rice, cucumber, lady finger, crops is required.

f) Quality manure/fertilizer should be provided at cheap rate rather than subsidies for fertilizers.

g) Marketing facility inside and outside Goa to sell produce.

h) Restoration of khazan land, repair of bands will recreate fish breeding and feeding area in river Zuari and other internal water reservoir thereby, leading to huge boost to local economy.

i) Tackling of stray cattle menace by making a go shala.
10.1.2. Animal Husbandry

- a) Dairy farming should be made more profitable by providing innovative governmental schemes.
- b) Goa depends on Karnataka for dry fodder; government should take steps for the availability of the same.
- c) Correct information should be given to the farmers on breeding of the cattle.
- d) Traditional free-range chicken rearing must be supported for economic benefits of larger number of people and for better health and environmental benefits.
- e) Strong recommendation for Go-shala in Borim village.
- f) Policies and guidelines are required for encouraging Piggeries and Poultries in residential houses.
- g) Restore all cattle grazing lands to ensure free range grazing and availability of fodder.

10.1.3. Micro, small and medium enterprise/industry:

- a) Business setup guidance/training is required.
- b) One stop NOC centers.
- c) For digital start ups computer knowledge must be provided to youth.
- d) Government should consider giving contracts to local and small-scale set ups in villages rather than giving it to big enterprises.
- e) In the year 2012 GIDC notified Panchwadi industrial estate, but till date it has not yet developed. Efforts are required to speed up the development of this industrial estate for creating employment opportunities among unskilled, semi-skilled and skilled locals in the village.

10.1.4. Senior Citizen

- a) Government should take into consideration the experience and advise of senior citizens while deciding on the developmental policies of various villages.
10.1. 5. Students

a) Proper transportation and internet facilities for the students from remote areas are required.

b) Organization of career guidance programs for students in different villages by taking into consideration the heritage, culture and economic mechanism of their village.

c) Repair and maintenance of government school buildings.

10.1.6. Self Help Groups/Mahila mandals

a) Marketing facility to sell food products, embroidery works, and stitched clothes is required. b) Training courses especially in tailoring, mushroom cultivation, beautician, jute bag making, artificial jewellery making is required.

b) FDA demands for a proper and separate space for operating their activities, may be provided by the government.

10.1.7. Tourism/hospitality/ services/ service industries

a) Many temples having rich history which needs to be promoted for GTDC thereby creating awareness among tourist and promoting local economy.

b) Tourism should be encouraged, restricted to home stays, small guest houses, nature walks, and education/nature/history/culture tourism only.

c) MNREGS should be open to all members of the society and also the wages paid under the scheme should be hiked to Rs.400/- per day.

10.1.8. Women

a) Require training in composting, vermi-composting, home gardening, cooking, baking, tailoring etc.

b) Proper transportation facilities, platform to sell home made products is required.

c) Involvement of women in NRLM and SSI, government aid to buy sewing machines, schemes related to Mahila Mandals / SHGs.
10.1.9. Youth/ Youth clubs
   a) Provision for a mobile app in which all unemployed youth can enter information about their capabilities/skills like plumbing, dancing, singings etc. which can be used for employment.
   b) Industries within the Panchayat area should employ youth from those villages.
   c) Training programmes required to prepare youth for self employment.
   d) Organic/ community farming training should be provided to youth.
   e) Government finance should be available for conducting sports activities/competitions, cultural activities of various youth clubs.
   f) Reservation in jobs should be on economic criteria and not on the basis of caste.

10.1.10. Families
   a) Panchayat should create awareness among family members of different schemes launched by government.
   b) Health centre for medical emergencies is a must/108 should be made available in Panchayat for at least two hours every day.
   c) Government should take some initiative in support of the BPL families through development schemes.
   d) Uncultivated land may be given on lease to landless families in villages.

10.1.11. Religious organizations/ Maand:
   a) Many temples, churches and mosques require proper publicity in Goa/ outside Goa by tourism department.
   b) Beautification of temples, churches and mosques can be carried out.
   c) Traditional festivals of these religious institutions like Dassehra, zagor, maand etc. should be encouraged.
   d) Encourage traditions of maand to plan heritage trails in villages to attract tourists.

10.1.12. Art and Cultural Clubs
a) Sustained art and cultural clubs by supporting them financially.

b) Training classes should be organized in different traditional, folk and modern performing arts.

c) Cultural programmes/ festivals can be organized at fixed tourist venues with government support/ tourism department and directorate of art and culture.

10.1.13. Anganwadi workers

a) Better infrastructure facility for anganwadi is the need of the hour.

b) Anganwadis should be provided with own premises by the panchayat with proper storage, kitchen, water and toilet facilities.

10.1.14. Private Sector

a) Government should decide minimum salary for freshers in private sector (at least Rs. 18,000)

b) Industrialization should be planned keeping in view the type of jobs that can be taken up by Goans.

c) By granting permissions to industries, government has to ensure that maximum workers are Goans.

10.1. 15. Fishermen.

a) Illegal sand extraction should be stopped as it destroys fish and fish breeding.

b) Repair, maintain and reconstruct all sluice gates/bandhs in the villages.

c) Support Pisciculture in khazans using sustainable methods.

10.2. Suggestions by Panch members:

A. Activities that can be taken up immediately:

a) There should be coordination between agriculture and forest departments and they should work with consultation with each other.

b) Locals should be protected from wild animals and their farms should be electrically/solar fenced.
c) Provision of water for drinking as well as agriculture purpose.
d) Community farming/spice plantation should be encouraged.
e) Counselling facilities for youth for employment.
f) Farmers should be informed that they can avail the loan from NABARD as well through other schemes and subsidies from government.
g) Every panchayat should see to it that MGNREGA scheme is properly implemented.
h) PHC should have a full-time doctor.

B. Activities that can be taken up in a short period of time up to 1 year:
   a) Need of a well-equipped primary health center.
   b) Government officials and panchayat should coordinate to implement and create awareness about programs and schemes regarding employment opportunities, vocational training, skill-oriented training, vermicomposting etc. amongst youth and villagers.
   c) Public transport needs to be improved.
   d) The funds sent for village development purpose are diverted towards unplanned work which needs to be stopped.
   e) Solution to the farmers problems related to irrigation, desilting of water tanks and streams, removal of weeds in the fields, unwanted trees in the fields and wild animals is necessary.
   f) Immediate attention is necessary to encourage the cultivation of local varieties of crops like vari, pakol, nachni etc. on hill tops.
   g) It has been observed that some ward members, Sarpanch show very little interest in the development schemes of the government. The directorate of panchayats/state government should come out with performance report of every ward member at the end of the year in order to keep a check over their involvement in the development of their wards.

C. Activities that can be taken up in a medium time period (1 to 3 years):
   a) Promotion of monsoon/rural/eco adventure tourism.
b) Government should look into uncultivated agricultural land and come up with various schemes for the farmers who are landless and wish to do agriculture.

c) Steps should be taken to provide market for agricultural produce outside Goa and outside India.

d) Steps should be taken by government to preserve and promote the use of seeds of local vegetables, because hybrid seeds do not respond to our local climate.

D. Activities that can be taken up in a longer period of time (more than 3 years):

a) Since land ownership is a major problem faced by the cultivators of the land, certain schemes/laws/policies of government are required to bring about large scale uncultivable land in Goa under cultivation.

b) Government should make efforts to provide solar panels in the villages.

10.3. Suggestions by the Researchers:

a) Goa Govt. can undertake the scheme on the lines of Chattisgarh state ‘Godhan Nyay Yojana’ which will procure cow dung from live stock rearers, produce vermicompost and sell it in the market to make animal husbandry more profitable and promote organic agriculture.

b) Functioning of initiatives like ‘Krishi Mitra’ needs to be monitored on regular basis.

c) Government should see to it that the financial assistance given to the farmers under different agricultural schemes needs to be distributed evenly among all the Village Panchayats/ Taluka and not the basis of first come first served for overall development of state of Goa.

d) The procuring of liquor licensing should be done by Panchayats in order to restrict the number of bars in villages.

e) Compulsory registration of SHG/ Mahila Mandals and monitoring their activities.

f) The Ward members must provide necessary information of different Govt schemes to the villagers.
g) The necessity of ‘Night School’ for illiterate villagers inorder to increase literacy and enhance skills amongst them.

h) Councilors appointed by the health dept under Rashtra Kishore/ Kishori Swasthya Karyakram (RKSK) can take up counselling sessions for senior citizens in villages.

i) In order to provide health facilities to all the villagers, the government health centers must take up training programmers in First Aid/ Paramedics in coordination with Panchayats for unemployed youth of the village.

j) Upgradation of Subcenters PHC/ CHC/ UHC/ Subdistrict and District hospitals.

k) It has been observed that there is water shortage in adjoining areas of industrial estate due to illegal bore wells dug by industries. In order to check this, the govt should provide separate water pipelines for industries.

l) Development projects in the villages should be self-sustaining and survive for a long period of time for economic revival.

m) Household wet waste can be converted into vermicompost by panchayats. The dry waste should be collected every week by panchayat.

n) Veterinary services must be improved in Goa.

o) Public Transportation and communication in the villages of this taluka should be considered on priority basis.
Chapter – 11
Quepem.

Compiled by Dr. Aditi Rane

The following findings are of the Village Panchayats of Quepem. This taluka comprises of 11 Panchayats. The findings are compiled from the responses obtained from the Elected Representatives, Panchayats functionaries and the citizens who participated in the focused group discussions.

11. Suggestions from the Focus Group Discussions:

11.1. Agriculture

a) Agricultural schemes to be implemented.
b) Proper irrigation facilities like bore well and solar pumps may be set up.
c) Jyoti and Jaya rice should be encouraged.
d) Proper marketing, storage, transport and distribution facility should be provided.
e) Barren land should be used for non agricultural purposes.
f) Training to be provided in the use of herbicides, drip irrigation methods, utility of Solar pumps and methods of growing new crops like cabbage, carrot, French beans, green chillies etc. Polyhouses may be established.
g) Toddy tapping should be encouraged and modern mechanized techniques should be provided for it as well as for coconut plucking.
h) Water conservation project may be taken up.
i) Communidade land should be made available for agriculture and non-agriculture purposes.
j) Training on community farming and organic farming required.
k) Lethargic attitude of various government departments like agricultural department towards farmers especially delayed supply of fertilizers should be addressed.
l) The problem of unavailability of agricultural laborers and lack of water supply for irrigation should be looked into.
m) Protection of crops from Wild animals should be immediately looked into.
2. Forestry:
   a) Cashew plantation and Palm plantation needs to be given attention. b) A drive to plant fruit bearing trees which will help in retaining ground water will also uplift the economic status of the rural people.

3. Animal Husbandry
   a) Poultry and piggery, traditional occupations, should be encouraged.
   b) Non availability of veterinary doctors that leads to cattle death should be immediately looked into.
   c) Rearing of goat and cattle should be encouraged.

4. Traditional artistry/skills
   a) Pottery is one of the traditional arts which should be promoted by training the youth on modern aspects of pottery and decorative items of earthen ware.
   b) Locals should be made aware of the schemes under Goa Handicraft, Rural and Small Scale Industries Development Corporation Limited.
   c) Raw material like bamboo, wood, clay should be available at a subsidized rate.

5. Micro, small and medium enterprise/industry:
   a) SHGs can be promoted to make goan indigenous food items specially sweets like bebincas, dodol, etc, allowed to set up outlets for supply, can be provided.
   b) SHGs should be provided with sewing machines.
   c) Easy process of registration for the start ups.
   d) Eco-friendly industries like candle making, incense stick making should be promoted.
   e) Agro-based industries like flour mills, coconuts/groundnut oil extracting units, rice processing unit may be established.

6. Pisciculture
   a) There is a scope for pisciculture and fisheries department should help locals in promoting pisciculture.
7. Self Help Groups
   a) Compulsory registration of SHGs should be done to avail the facilities from the Government.
   b) Training in food processing and horticulture activities is required.

8. Tourism/hospitality/services/service industries
   a) Hinterland tourism, eco-tourism, adventure tourism should be encouraged.
   b) Water sports as well as boat houses may be encouraged along with development of Betul fort in the Village Panchayat of Naqueri-Betul.
   c) Some of the Village Panchayat lack skill based service providers like plumbers, electricians, hair cutting and grooming, driving school, mechanic etc. Therefore, training and finance for unemployed youth in this may be provided.

9. Medical facilities
   a) Strong recommendation for medical facilities in the villages like Mohala Clinic to be provided.

11.2. Suggestions by ward members:
1. Activities that can be taken up immediately:
   a) To create awareness amongst the youth for self-employment, availability of government schemes and procedures to apply for the same.
   b) Workshops for farmers on organic farming techniques and promotion of community farming.
   c) Skill development courses for youth to sustain traditional skills in every Village Panchayat are required. d) Immediate action should be taken to stop wild animals from destroying the crops.
2. Activities that can be taken up in a short period of time up to 1 year:
   a) Enhance the medical facilities in the villages especially for the poor, needy and the senior citizens.
   b) It should be compulsion on mining companies to provide employment to the respective locals or villagers.
   c) To address the issue of water scarcity and for drinking water purposes the wells should be cleaned in proper duration of time.

3. Activities that can be taken up in a medium time period (1 to 3 years):
   a) Opportunities of employment in government and public sectors for the people.
   b) Proper irrigation facility as well as water management is required for farming.
   c) Provision of transportation facilities is the need of the hour.

4. Activities that can be taken up in a longer period of time (more than 3 years):
   1. Establishment of industrial zone, for example in Village Panchayat of Assolda is required.

11.3. Suggestions by ERP core team members:
   a) Goa Govt. can undertake the scheme on the lines of Chattisgarh state ‘Godhan Nyay Yojana’ which will procure cow dung from live stock rearers, produce vermicompost and sell it in the market to make animal husbandry more profitable and promote organic agriculture.
   b) Toddy-tapping should be given importance as toddy is used locally for making food items like Sannas, etc. and for coconut jaggery which contains iron and is healthy.
   c) The procuring of liquor licensing should be done by Panchayats in order to restrict the number of bars in villages.
   d) Compulsory registration of SHG/ Mahila Mandals and monitoring their activities.
   e) The Ward members must provide necessary information of different Govt schemes to the villagers.
f) The necessity of ‘Night School’ for illiterate villagers’ inorder to increase literacy and enhance skills amongst them.

g) Councilors appointed by the health dept under Rashtra Kishore/ Kishori Swasthya Karyakram (RKS) can take up counselling sessions for senior citizens in villages.

h) Public Transportation and communication in the villages of this taluka should be considered on priority basis.

i) Proper Health care facilities should be provided in all the villages.

j) Immediate steps to be taken by Government to stop the destruction of crops by wild animals.
The following findings are of the Village Panchayats of Salcete. This taluka comprises of 30 Panchayats. The findings are compiled from the responses obtained from the Elected Representatives, Panchayats functionaries and the citizens who participated in the focused group discussions.

12.1. SWOC analysis of Salcete taluka.

The SWOC analysis of the thirty Panchayats in Salcete Taluka are presented below:

12.1.1. The strengths of the village panchayts in Salcete.

1. **Coastal cover:** Many Panchayats in the Taluka lie along the coast, making them attractive tourist destinations.

2. **Fishing:** Fishing is being practiced in traditional form and also with latest well-equipped trawlers

3. **Water supply:** Most areas have continuous water supply and the area is well irrigated for agriculture production. There is no shortage of water considering that there are many wells.

4. **Owned premises:** Most Panchayats have their own premises with a hall and some shops. Having shops, a hall etc. helps the Panchayat earn some regular income.

5. **Effective garbage collection facility:** Some Panchayats have an effective door to door garbage collection system. The solid waste is sent to Saligao waste treatment plant for further processing.

6. **Digital awareness amongst the population:** Most of the population of the locality is aware of digital platforms and usage of smart devices.

7. **Climatic Conditions:** The climatic conditions in the State and the Taluka are favorable for agriculture. The villages get a good amount of rain in the area thus making the
area well irrigated. The rainwater also improves the quality of soil thereby making it suitable for all kinds of crops.

8. **Revenue generation:** Most of the villages in Salcete Taluka are involved in revenue-generating activities such as dairy farming and piggeries. Some are also involved in oyster harvesting and prawn farming.

9. **Natural resources and use of alternate energy sources:** Some households are generating and using solar energy for their personal use. Most of the new buildings have solar panels.

10. **Literacy:** There are many colleges in the taluka. The area has a high literacy rate with several graduates and post-graduates employed in white collar jobs within the State, country, and a large number employed in foreign countries.

11. **Local committees:** Most of the panchayats have their own local youth clubs, farmers club, and economic development committees that make implementation and awareness creation of any activity easy.

12. **Private forest:** The presence of private forest adds to the revenue generation of villagers.

13. **Tourism:** Most of the population is involved in the tourism business by way of taxis, guest houses, homestays, shacks, restaurants and hotels.

**12.1.2. Weaknesses identified about the village panchayts in Salcete.**

1. **Panchayat Ghar:** A few Panchayat Ghars lack proper infrastructure: some are still operating in rented premises thereby adding to the expenditure of Panchayat in the form of rent.

2. **Lack of training:** The Ward members are not trained for handling/managing the social developmental activities in their respective wards (many of them lack the basic knowledge about the working of a Panchayat).

3. **SHGs:** Self-Help Groups either do not exist at all, or are inactive,

4. **Local issue:** Major concerns are that contaminated water and wastewater from construction activity, industrial activity, piggeries, etc. is directed towards the fields, adversely affecting the soil and the crops.
5. **The brain drain of youth**: Due to lack of gainful employment opportunities, many youngsters are leaving the village and seeking employment either abroad or in other States. Further, the younger generation is not interested in agriculture due to the low returns, which are not commensurate with the work and risk associated with this critical economic activity.

6. **Industries**: Most Panchayat areas have no large-scale industries, which would have created employment opportunities for the locals.

7. **Local Market**: There is no weekly bazaar where local produce could be sold. Often the produce is in very small quantities – the surplus after self-consumption. A local market could help households sell such produce profitably.

8. **Agriculture & Horticulture**: The farmers expressed that insecticides and pesticides are not provided by the government. The farmers find it difficult to get the labour to carry produce from the farm. There is a lack of knowledge about different schemes in the agricultural sector. Wild animals and stray cattle create havoc in fields. Funding for Solar fencing is needed to prevent stray and grazing cattle from destroying crops. Farmers lack knowledge of modern farming techniques and also about the latest prices of produce. Further, taking up any policies or schemes involves huge formalities and procedures, which acts as a major deterrent this is mostly due to small agricultural landholding.

9. **Water management**: The filling of fields for construction of roads/flyovers, etc. leads to flooding in the village posing a threat to local households and crops during the rains. There is need for the construction of a water harvesting unit for irrigation purposes.

10. **Poor Tourism Infrastructure**: Most tourist spots lack basic infrastructure facilities like toilets, benches, walking tracks, and waste segregation units.

11. **Non-development of Potential Tourist Sites**: The Taluka has several potential tourist spots, but these have not been developed; heritage sites are poorly maintained.
12.1.3. Opportunities.

1. **Agriculture and allied activities:** The villages have adequate agricultural land, offering scope for Mechanized Agriculture. There is huge scope for economic activity in agro-based and allied areas. There is also scope for setting up a Skill Training Centre for men and women

2. **Self-Employment:** There are opportunities for micro, small and medium-scale industries, particularly in the area of food processing

3. **Entrepreneurship training:** There are educated youth, middle-aged men, and ladies who are interested in taking up various entrepreneurial activities, but they require training. There is a scope for creating awareness of various Govt. schemes and growth prospects among the citizens. There is scope for strengthening the existing SHGs by providing the required training and creating a market for their products. The youth can take up internship and part-time job opportunities at the village level.

4. **Development of eco-tourism:** The Panchayats with support of the tourism department can start boating in the rivers, rich biodiversity and migratory birds make it feasible for starting eco-walks and bird watching activities in selected villages. The cool environment and peaceful climate have already made these villages an attraction point for tourists and such activities will boost the same. Further, Heritage walks can be conducted in the villages.

5. **The exploitation of solar energy:** Panchayats can setup a solar power plant for their use and further supply to nearby households.

6. **The local market for local produce:** The need for a market for local produce cannot be ignored and can be tackled by setting up a weekly farmers’ market or pop up Bazar.

7. **Compost, e-waste, and garbage plant:** The Panchayat can setup a compost plant or wet garbage disposal plan to tackle the garbage issue in the Panchayat. Dry waste & e-waste may be disposed of by tying up with local recyclers or can be taken up as a business by locals.

8. **Migration of labor:** Migration of labor during the COVID pandemic, gives an opportunity for locals to take up the labor work.
9. **Village infrastructure:** There is urgent need for libraries, recreation facilities, medical assistance at the village level. The villages also need grounds and gymnasium considering the interest of youth in fitness.

10. **Departmental Scheme:** Agriculture department and Goa Horticultural Corporation should arrange to buy the locally grown vegetables and make it available at its horticultural outlets. This will make Goa self-sustainable to some extent. This will also create confidence in the young farmers who are otherwise hesitant to take up agriculture as a full-time occupation.

11. **Local database:** A computer database should be created to know the availability of skilled people such as toddy tappers, farmers, coconut pluckers, tailors, and mechanics in the villages.

12. **Workshops:** Training in Organic & hydroponic farming to be provided to the farmers by the government as organic farming has been gaining popularity and by focusing on certified organic crop cultivation, farmers can fetch a good source of revenue.

12.1.4. **Challenges.**

A. **Degradation of quality of soil:** Cultivating a single crop as paddy leads to degradation of soil which can make the land uncultivable. Crop rotation may be carried out to improve soil quality. The issue of uneven terrain which makes usage of machinery difficult cannot be ignored.

B. **Issues created due to western bypass:** The western bypass passing through some of the villages has caused irreparable damage to fields. These fields remain fully water lagged during monsoon and prevent farmers from cultivating it due to improper drainage.

C. **Migration and transportation of labor:** Shortage of labor due to the pandemic is a major issue as the educated youth from the village are hesitant to do agriculture and other labor work. Labor scarcity and high labor cost force farmers to adopt plantation tree crops instead of labor-intensive field crops.

D. **Sanitation facilities:** No proper sewerage facilities and non-maintenance of soak pits by the residential complexes leads to contamination of the nearby wells and
groundwater. The garbage disposal plants in various complexes are not being effectively managed.

E. **Animal grazing:** Cattle entering cultivated fields is a major issue that damages the field leading to huge losses to farmers. Farmers require funding for installing electrical fencing.

F. **Documentation to apply for government schemes:** The farmers find it difficult to apply for Government schemes due to the unavailability of documents or difficulty in preparing documentation and other formalities.

G. **Limitation of authority:** The limited authority that it has, mitigates the Panchayat’s ability to collect revenue and also to impose

H. **Natural adversities:** Flooding of low-lying areas especially during the rainy season further there is also soil erosion happening around the coastal belt.

I. **Tourism:** Frequent renewals and cumbersome procedures to avail tourist taxi permits and shack permits leading to lack of business since it is a seasonal occupation. The introduction of app-based taxi services has posed a threat to local taxi operators.

### 12.2. **Suggestions for Economic Revival of Salcete Taluka.**

The suggestions from the Economic Revival Plans of all the thirty Panchayats have been compiled to prepare the Suggestions for the Economic Revival of Salcete Taluka. These have been arranged sector-wise.

The suggestions are largely based on

1. Focussed Group Discussions that College faculty members had with groups such as farmers, fisherfolk, Self-Help Groups, youth, villagers dependent upon tourism, etc.

2. Discussions with Ward members
12.2.1. Agriculture.

A. Attention required immediately

1. Sluice gates are to be repaired immediately – The Water Resources Department does not respond despite repeated requests - this is a grievance voiced by ward members from practically all the Panchayats in Salcete taluka.

2. Farmers need space to dry their paddy after harvest – the Panchayats could create such space on Communidade land.

B. Short period of time (Within 1 year)

1. There should be proper demarcation of open and traditional accesses to farmlands, and these should be widened to 6 metres.

2. Farmers can think of growing fodder, flowers, fruits, etc. which are not easily available - this will fetch them a good price in the market; presently all the demand for these three items is met by out-of-State suppliers.

3. Floriculturists can grow exotic flowers such as orchids, and horticulturists can grow vegetables such as broccoli, asparagus – the starred hotels offer ready markets for such items.

4. The Panchayat can approach the nearby hotels or industries to take benefit of their CSR funds for purchasing basic machinery like tractors and harvesting machines which can then be rented to the locals in the village and if possible can be further extended to the farmers in the nearby villages. Or the Govt. should finance Panchayats for purchase of machinery and equipment, which can then be rented out to farmers.

5. The Department of Agriculture and Goa Horticultural Corporation should arrange to buy vegetables grown in the villages and sell them through its horticultural outlets. This will incentivize farmers to grow vegetables and reduce the demand for vegetables coming from other States, increasing Goa’s self-reliance. This will also create confidence of an assured market in young farmers who are otherwise hesitant to take up agriculture as a full-time occupation.

6. There is a need to revise the support price of Rs. 20/- per kg for Paddy on an urgent basis– this price has not been changed for years.
7. Farmers who are into cultivation feel the need for fencing their fields to save their crops from cattle, pigs, etc., but find it very difficult to fund it. The government can devise a scheme or can even provide fencing material at a subsidized price.

8. Tenant farmers are not able to get the benefit of Kisancards as the land is not in their name. The Govt. should work with banks to find a solution.

9. Many ward members expressed interest in modern, scientific methods of cultivation such as hydroponics, aquaponics, aeroponics, vertical farming, etc. They would like to be trained by experts and are then willing to invest and start cultivation.

10. Crop rotation is essential – for retaining soil fertility, ensuring productive use of land and augmenting farmers’ income.

11. Farmers’ markets could be organized in all Panchayats on a weekly basis, where besides agricultural produce, villagers could sell home-made foodstuffs such as dry masalas, curry pastes, vinegar, traditional sweets, pickles, etc.

12. Mushroom cultivation as a livelihood activity can be taken up at the household level and even commercially.

13. The plantation of one of the horticulturists of Curtorim has been previously identified as a “Model Plantation System” for cashew. Other Panchayats could invite the plantation owner to share his knowledge in all villages and similar initiatives can be taken up for other crops as well.

C. Medium time period (Within 1-3 years)

1. Fallow land can be brought under cultivation by adopting community or contract farming. The Govt. offers 90% subsidy for community farming – the villages need to take full benefit of this.

2. The promotion of community farming is the need of the hour. The departure of migrants to their hometowns during the pandemic has created a vacuum in the labor market, which is very difficult to fill in the immediate future. Community farming can help farmers to share labour and thus reduce costs. The only barrier to starting community farming as evident in the Focused Group Discussions is the disputes and
lack of consensus among the villagers. One of the Panchayat staff can be given the power to act as an arbitrator and sort out issues.

3. The Govt. should enact legislation whereby if Communidade tenants have left the land fallow for a specified period of time, say 20 years, then the land should revert to the Communidade, which can then undertake contract farming on the land.

4. Farming cooperatives will involve the pooling of land belonging to different cultivators and will enable farmers to take benefit of the various government schemes like KisanCard, where the current small size holdings become a major constraint.

5. The contract farming laws in the State have not yet been framed – this needs to be done immediately – the laws are already in place in other States.

6. If the revival of the canal system and de-silting of traditional ponds (Khondaro) is attended to, the irrigation needs of many villages would be met.

7. The Government needs to ensure that water flows in the canals and distribution channels in a timely manner, so that the farmers can use it as a reliable source of water for irrigation and cultivation. The WRD should consult Panchayats as to the best time to release water in the canals, so as to reap maximum benefits from the irrigation projects of the Govt. of Goa. The irrigation could be drip irrigation, or sprinklers could be used to minimize the wastage of water.

8. Members of the Farmers’ Clubshave suggested that the Government should train Goans through ITIs, Polytechnic institutes to operate and maintain farm equipment such as tractors and harvesters, or help Goans acquire such skills through skill-based courses. The aim should be to expand the available manpower in the state.

9. They suggested that the Government should avoid hiring farm equipment such as tractors, harvesters, etc. from other states, and instead, they should assist the farmers’ clubs in acquiring more tractors and harvesters. This will greatly reduce the dependence on other states for farm equipment.

10. Instead of providing tractors and other farm equipment to farmers through the Agriculture Department/ Mechanical Division (MCO), tractors should be supplied to the Farmers’ Clubs since most government departments begin work at 10 a.m. and most farmers require this equipment at 7 a.m.
11. A system of marketing and distribution facilities similar to that which exists in the case of milk, is needed for paddy, vegetables, fruits and poultry. Developing a system for village-level collection of these products will ensure a guaranteed market, better price and freedom from the hassles of going out and finding customers.

12. Youth can adopt modern, scientific, and IT-based farming methods that economize on the use of water and soil but fetch a good yield. These are already being practiced by some young entrepreneurs in the State. The Panchayats and the local schools/ higher secondary schools could organize field trips to such startups and get firsthand knowledge about the functioning of these ventures. Agro-based start-ups can get funding and seed money from NABARD or under the Startup Policy of the Govt. of Goa. Young farmers can take up hydroponic/aquaponics farming, which require less space but can generate huge returns. They can avail of the subsidy of State Government.

13. There is a need for a government-operated subsidized water-testing lab for testing water parameters such as vibrio, etc. which is very important for improving agricultural productivity. Testing facilities are currently available with private laboratories in the State, but the cost of testing is extremely high. Water testing Labs are needed to identify the appropriate medicine to be administered based on the quality of the water.

14. NABARD and ICAR should be involved in conducting Agri-skilling programmes; this would also help to promote agriculture, horticulture, and floriculture as economic and viable occupations.

15. The procedure to install a Gobar Gas plant is tedious and hence farmers are unwilling to take up this venture. The government must promote schemes for cow dung composting and Cow dung cakes production.

16. In Panchayats that have a semi-urban character, people of the area can take up urban farming practices such as aquaponics, aeroponics, vertical farming, etc. as part of urban farming. Small space gardening, rooftop gardens, kitchen gardens, growbags – all these can be encouraged and people can grow vegetables, herbs, medicinal plants, etc. These can be used for self-consumption and growers can even supply these to the village or to neighbouring towns/cities.
D. Long period (more than 3 years)

1. Make contract and co-operative farming legal and viable and give all financial support for promoting agriculture especially with the Agriculture Officials visiting the village and guiding the people.

2. The feasibility of integrated farming, agricultural systems that integrate livestock and crop production, or integrate fish and livestock, as an alternative to the existing system of farming may be explored. In this system, an inter-related set of enterprises is used so that the “waste” from one component becomes an input for another part of the system. This reduces costs and improves production and/or income. Since it utilizes waste as a resource, farmers not only eliminate waste but they also ensure an overall increase in productivity for the whole farming system. The integrated farming system is also a sustainable system that focuses on increasing farm productivity by increasing diversification, resource integration, and creating market linkages.

3. The state lacks adequate warehouse facilities for the storage of agricultural produce (Granaries). At the same time, most farmers struggle to find a market for their produce. Such marketing, storage and distribution facilities need to be created.

4. The members also stated that most farmers refrain from taking up agriculture due to cumbersome paperwork involved in availing of subsidies disbursed by the government. A village wise officer could be appointed to provide door to door facility to ensure that all farmers can easily avail the subsidies, thereby promoting the growth of agriculture.

12.2.2. Animal Husbandry.

A. Short period of time (Within 1 year)

1. Seraulim and Chandor villages are the largest milk producers in Salcete, and supply milk to Goa Dairy. Fodder for cattle is a major issue that dairy farmers face. The Panchayat can rent out Communidade land on contract basis to dairy farmers for growing fodder.
B. Medium time period (Within 1-3 years)

1. The Government should create a chicken hatchery in Goa to get chicks at a cheaper rate to save on the cost of acquiring chicks from other states, thereby making the poultry bred in Goa more competitive than the ones coming in from other states.
2. Traditional free-range chicken rearing must be encouraged at the household level by distributing chicks at the village level.

12.2.3. Fisheries.

A. Short period of time (Within 1 year).

1. There is a clear need for the demarcation of the fishing area for the traditional fishermen.
2. Stringent measures need to be adopted to implement the ban on LED fishing.
3. Weather warning information has to be disseminated to the villagers and an appropriate medium should be set up in the villages coming under the coastal belt.

B. Medium time period (Within 1-3 years)

1. Facilities for fish storage are needed and fish processing units, if set up, will prevent wastage while simultaneously generating income.
2. Fishmeal can also be produced from the dried bones of processed fish or the by-catch, particularly by trawlers. This fishmeal can then be sold as animal feed, fertilizer, etc.
3. There should be encouragement to take up pearl farming through the provision of incentives as it promotes environmental conservation and would also contribute as a source of revenue.
4. Pisciculture and revival of saltpans have been proposed by the village members.
5. Vertical mud crab farming and cage farming are other options that could be tried by villagers.
6. The prawn hatchery which had been set up in Benaulim during the 1990s is no longer functional. It should be revived – it has potential for pisciculture not only in
Benaulimbut in the entire State. However, the reasons for its closure need to be studied, so that the same mistakes are not repeated.

7. Training of local youth to generate employment opportunities and overcome migrant labour shortage due to COVID-19 is a matter of urgency. This was a specific point mentioned by a trawler owner. He said that local youth would not take up some of the more physical and unskilled work currently done by migrant labour. However even trawler pilots are not locals. This is a highly skilled profession, paying very good salaries and the Government could consider training and skilling local youth for this.

12.2.4. Tourism
There are several places in Goa that can become tourist attractions, but proper infrastructure has to be put in place before converting them into tourist attractions. Most importantly the Govt. must provide waste segregation bins at all these locations, and enforce segregation strictly through a system of stringent fines. Or else the heritage sites or ecotourism destinations will be destroyed by waste.

A. Immediate.

1. Homestay: The government should provide either soft loans or a one-time grant for people converting their houses into ‘homestays’ for promoting ecotourism/heritage tourism.

B. Short period of time (Within 1 year)

1. There is tremendous tourism potential if all the beaches are developed and amenities provided such as dustbins for segregated waste, SulabhShauchalyas, attractive benches, pay-and-use shower and changing cubicles, beautification of the beach with plants, good aesthetic lighting, prevention of erosion, creation of a promenade/walking/cycling track, proper parking facilities, etc.

2. All the coastal Panchayats have beaches – some fairly long, some small; it is possible to offer non-motorized adventure sports such as canoeing, kayaking, parasailing, surfboarding, etc. on selected beaches. Other beaches can offer facilities for beach
sports such as frizbee, beach volleyball, beach handball, beach football, etc. These can be rented out by the hour to local educational institutions, clubs, tourists, etc.

3. The Cana-Benaulim Panchayat has beautiful natural lakes, which can be developed for tourism, provided the lakes are regularly maintained. These lakes also attract a variety of birds, particularly during the monsoons. Vantage points can be identified and developed as viewing points (as is done in hill stations); walkways, jogging tracks, and cycling tracks around the lakes will attract visitors and a business ecosystem can be created alongside the natural ecosystem. A spot can be set aside for artists, caricaturists, etc.

4. Youth from the villages can be trained as tourist guides – there is a lot of unwritten history and folklore that can be learned from the elders in the village. These should be documented and form part of the training of the tourist guides.

5. Most of Goa’s villages have rich biodiversity and greenery all around, offering an opportunity to organize nature walks, educational tours under eco clubs for students as well as tourists. This can help the Panchayats in generating income and create a potential for entrepreneurship/job generation. Most villages also have old heritage houses, churches and temples, which can also be made part of the Nature walk thereby attracting more tourists.

6. Camurlim has a spring, the waters of which are believed to have medicinal properties. The waters of the spring have thousands of tiny fish known as GarraRufa, sometimes referred to as ‘Doctor fish’. These fish are used in fish pedicures in beauty salons and spas, where they nibble on the dead skin of feet, making the feet clean and smooth. The area has tourism potential, but has been neglected.

7. Goa has substantial artistic talent (music, dance, drama, tiatr, etc.). If these are made part of the weekly markets or pop-up bazaars, the markets will become tourist attractions and the artistes will get opportunity and exposure, which may open up better avenues for them.
C. Medium time period (Within 1-3 years)

1. The Goa State Biodiversity Board should create awareness on Biodiversity in coordination with the Biodiversity committee of the villages. People who have uncultivated land could be encouraged to set up biodiversity farms, housing flora that is native to Goa. These places could be promoted as an ecotourism initiative.

2. Butterfly gardens would also fit very well into the natural environment and serve as a good tourist attraction, adding to the ecotourism potential.

3. In the Panchayat areas of Seraulim and Betalbatim, considering the migration of birds from different parts of the world, the Panchayats should set up breeding nests for such birds and keep certain areas restricted for them. The nests will be a permanent shelter for such birds and attract more tourists.

4. Villages such as Chandor can be promoted as Heritage-Ecotourism destinations based on the Sikkim model. Villages have historic sites, which have to be maintained. Chandor, for example, has the ruins of an ancient Shiva temple, a Kadamba fort, and age-old dockyard, etc. which should be preserved and the areas refurbished to create potential for tourism.

12.2.5. Micro, small and Medium Enterprise

A. Immediate.

There are potters, weavers, and other artisans in the villages who used to earn their living using their traditional skills. It is necessary to revive these industries as it promotes healthy living. Considering the demand for pottery items, handlooms and ethnic items, etc., these artisans can teach others to take up these occupations as a self-employment activity.

1. Setting up local markets and pop up bazaars for locals to sell their produce do not require much investment in infrastructure since they are temporary markets. These markets need not be only for farm produce. Homemade pickles, jams, papads, snacks, local sweets, surplus fruits from gardens, etc. could all be sold at these markets.

2. When there is a market, it will automatically encourage people to use their skills to produce and sell items. This will not just be limited to the Panchayat area but people from surrounding villages and also the city will also prefer local organic produce. This
will create income for locals and will simultaneously provide fresh, safe, and quality vegetables to the villagers. Such markets also tend to attract tourists who are looking for authentic Goan foodstuffs, arts and crafts, memorabilia, etc.

B. Short period of time (Within 1 year)

1. Waste is a big business opportunity – there are enough examples of young successful entrepreneurs who are making a good living out of waste collection and disposal. Here again, field trips by the school and the Panchayat can help motivate some youngsters to take up this activity on a commercial basis. The result will be a clean village and an economic activity in the village.

2. Bee-keeping and Honey making are also activities promoted by NABARD. There is a young entrepreneur in Goa who has a startup in this area and he is selling his honey on the Internet. Such examples should be highlighted to motivate youngsters

3. Enhance home-based industries manufacturing products such as alcohol, vinegar, oil (coconut), pickles, and support these industries.

4. The local women should be encouraged to start skill-based industries such as paper bag making, stitching, etc.

5. Branding and marketing of local products with the help of the Goa Chamber of Commerce.

C. Medium time period (Within 1-3 years)

1. Setting up of rice mills for dehusking paddy – was a suggestion that came from the farmers themselves – incentives could be provided by the Govt

2. There was a suggestion from the ward members of Seraulim that a small-scale unit could be set up in the village to produce dairy products such as butter, ghee, curd, etc. since the village is a major producer of milk.

A. Immediate.

1. Villagers in some Panchayats claimed that the Govt. of Goa has collected Rs. 10000 from them for construction of toilets, but the toilets are not yet constructed.

2. Telecom and IT facilities need to improve for fast communication and digital business transactions, school assignments, and communication to foreign countries to improve since many people are working abroad. Mobile connectivity and Broadband facility are to be enhanced.

3. The villagers are completely unaware of any schemes for self-employment or financial assistance for agriculture and allied activities, MSMEs etc. The Govt. should depute its departmental functionaries and autonomous organizations such as NABARD/ SIDBI/ KVIC/ banks should depute their officials to villages to conduct awareness drives about all Central/State/NABARD/SIDBI/KVIC/Bank or any other schemes.

4. A common concern of various stakeholders is that availing of Government Schemes is time-consuming and frustrating, resulting in many not making use of the opportunities available. Hence, a single-window service is urgently required wherein individuals can obtain information about the schemes, the benefits, and the required documentation, and the process involved in obtaining the same.

5. The Government or Panchayat authorities could design a small booklet on the various schemes, aims/objectives, eligibility criteria, type of assistance, documents needed, duration of the processing, etc. This would go a long way in creating a transparent communication between the Government and the people, and in making the Government a welfare one.

6. Panchayats to maintain a register of those who lost their jobs due to the pandemic – these may be categorized as skilled and unskilled workers. The unskilled workers should be encouraged to enroll under MGNREGS, get their cards and take up any work available under the scheme

7. Panchayats should give publicity to all Govt. schemes – these should be prominently displayed on Notice Boards.
8. Panchayats should become active on social media – each Panchayat should have at least its own Facebook page and Instagram account, which should be updated regularly with Govt. announcements and schemes, village news, etc. This will get the younger generation involved in village matters.

B. **Short period of time (Within 1 year)**

1. The State Govt. should approach NABARD/SIDBI etc. and convince these organizations to relax the eligibility criteria for availing of financial assistance. The minimum size of landholding / investment for schemes is too high and Goan farmers / dairy farmers etc. cannot avail of the schemes.

2. There is great scope for conducting training programs for the youth to increase their employability. The Panchayat may collaborate with ITI or other training institutes to provide skill development programs to the youth as per the requirements of industry – these could be in trades such as electricians, plumbers, auto mechanics, drivers, tourist guides, housekeeping, security, etc. This would help the youth of the villages find jobs in the industry and would also enable self-employment.

3. A special area, away from the settlement zone should be provided to network companies for installing mobile network antennas to avoid harmful radiation effects. A “one door information center” is required in the village to access administrative data, schemes, and facilities, including payment of bills, etc. Free Wi-Fi hotspot may be also provided.

4. Coastal erosion is a natural phenomenon. The soil erosion of the beaches has to be arrested immediately. This can be done using bioengineering techniques that involve a combination of vegetation and erosion-control products made of natural, biodegradable materials. These techniques include the use of natural fiber blankets, coir rolls, and planting native vegetation buffers.

5. The State Government may award the Panchayat that contributes the most towards the state GDP or otherwise (e.g. Best Village Panchayat, Best Panch, Village with Most Community Development Activities done, etc.)
6. Each Panchayat must maintain a Disaster Reserve Fund to meet unforeseen contingencies. An initial amount of Rs 10,00,000/ must be provided by the Government of Goa.

7. A Disaster Management Team must be trained and kept ready at all Panchayats to deal with natural calamities like floods, earthquakes, cyclones, or any outbreak of disease, etc.

C. Medium time period (Within 1-3 years)

1. To execute, monitor, and sustain all these initiatives at the village level, a new division of the Panchayat called ‘Revenue Generating Sector’ (RGS) has been proposed. This RGS shall be a multifaceted committee that will plan and execute programs to promote Eco-tourism/Heritage Tourism, Agriculture ventures, horticulture ventures, Fish-farming ventures, and oversee the functioning of small scale industries and organizations like farmers clubs and self-help groups.

2. There are a number of schemes under Mission Antyodaya, which the Govt. of Goa should implement immediately. These include

- Schemes for Agriculture, Horticulture and related activities
- Schemes for Land Improvement and Irrigation
- Schemes for Modernization and Mechanization of Agriculture, Agricultural Marketing
- Schemes for Aquaculture
- Schemes for Animal Husbandry
- Pradhan Mantri Kisan Sampada Yojana (Food processing – small scale units)
- Schemes for Women Entrepreneurs)
- Schemes for Social Welfare (Disabled, Elderly...)
- Rashtriya Gokul Mission (for dairy farming),
- Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (to organize poor rural women into SHGs),
- Deen Dayal Upadhyaya Grameen Kaushalya Yojana (for skilling of rural youth)
D. Long period (more than 3 years)

- The Panchayats can fit solar panels, thus making villages fully solar-powered. Further, the Panchayat can supply such energy generated to the nearby houses. The same can be taken up on a larger scale in the near future.

12.2.7. Others.

A. Immediate.

1. Waste management in Goa is becoming a major problem. All Panchayats should necessarily implement waste segregation. Home composting, vermicomposting, biogas plants – all these are simple, inexpensive remedies for the problem of wet waste, particularly in rural areas, where practically all houses has open spaces/gardens.

2. Legal Aid camps can be held periodically – any villagers with legal backgrounds can organize these – and issues such as the Krishi card issue can be taken up and a solution found.

3. Goa University and the Colleges in the State can send Undergraduate and postgraduate students for internships and part-time jobs via the Panchayat. They could also be called on to volunteer for whom they could be given a letter of appreciation by the Sarpanch. This would help them with extra credits and the Panchayat could get some much-needed assistance.

B. Short period of time (Within 1 year)

1. Career counseling sessions may be organized for the youth in the area. These may be done in collaboration with private companies as a part of their CSR activities.

2. Local youth could be given industry-specific training wherever vacancies exist. A legally binding agreement of minimum period of service may be drawn up between employer and employee on completion of training so that youth don’t resign as soon as am ore lucrative opportunity opens up immediately after the pandemic has subsided.
3. Senior citizens have vast knowledge of their villages and their history, traditional practices, etc. It is important that this knowledge be documented and be available to future generations. This could be a project assigned to College students.

C. Medium time period (Within 1-3 years)

1. Waste segregation unit for power generating plants as put up by the government in the village of Saligao Goa. Since Panchayats will not have the financial resources to take up the project, there should be some support from the government regarding the same.

2. The government should immediately stop its present policy of concretizing water bodies. Instead, the embankments of lakes and streams should be refurbished with natural products so that the flora and fauna of the area survives and thrives.

3. One Panchayat office (Camurlim) has received solar panels from the then MP, and generates its own energy and sells surplus energy to the grid. However, there is a cap on the amount of energy produced and sold to the grid. The Govt. does not allow more panels to be set up, even if there is space for installation of solar panels. The ward members of this Panchayat have demanded that this cap be removed, particularly as the Government says it is promoting non-conventional renewable sources of energy.

4. In Panchayats that have a more semi-urban character there is huge scope for training youth in trades such as electricians, plumbers, auto mechanics, drivers, housekeeping personnel, security guards, beauticians, hairdressers, etc.
Economic Revival Plan for the Villages of Sanguem Block in the State of Goa was undertaken on behalf of the Directorate of Higher Education (DHE) and the Goa institute of Public Administration and Rural Development (GIPARD) under the Disaster Management Act, 2005. The present report is compiled based on the reports for the economic revival for the seven panchayats of Sanguem taluka. Out of the seven reports of the revival plan, reports for six (06) panchayats were submitted by Government College Quepem, whereas Multi faculty College Dahrbandora submitted the report for the remaining one (01) panchayat of Sanguem taluka (Table 13.1).

Table 13.1: Names of the Village Panchayat, Sanguem Block

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Name of the Village Panchayat</th>
<th>Report Submitted by</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rivona</td>
<td>Government College, Quepem</td>
</tr>
<tr>
<td>2</td>
<td>Uguem</td>
<td>Government College, Quepem</td>
</tr>
<tr>
<td>3</td>
<td>Sanvordem</td>
<td>Government College, Quepem</td>
</tr>
<tr>
<td>4</td>
<td>Netorlim</td>
<td>Government College, Quepem</td>
</tr>
<tr>
<td>5</td>
<td>Curdi</td>
<td>Government College, Quepem</td>
</tr>
<tr>
<td>6</td>
<td>Bhati</td>
<td>Government College, Quepem</td>
</tr>
<tr>
<td>7</td>
<td>Kalay</td>
<td>SPES’s Multi-Faculty College, Dharbandoda</td>
</tr>
</tbody>
</table>
13.1. Analysis and Discussion

Sanguem is a block / taluka in South Goa district of Goa consisting of one municipal Council (Sanguem Municipal Council), a Census town (Sanvordem Census Town) and 35 villages. The area has beautiful landscape along with the presence of a few geological mines. The main attractions of the taluka are Bhagwan Mahaveer Sanctuary, Mollem National Park, the Salaulim Dam.

13.1.2. Introduction to Village Panchayats of Sanguem

The Sanguem block consists of seven village panchayats covering 35 villages (Government of Goa, 2018).
Demographic Features

**Population**: The population in the village panchayats ranged between 3050 in Rivona Panchayat and 8780 in Sanverdem Panchayat (Fig 13.1.). The average size of population of the Panchayats in Sanguem was 4260, with 5 of them having population lower than 3600 indicating considerably higher density in Sanvordem Panchayat.

![Panchayat-wise Distribution of Population in Sanguem Block](image)

**Fig. 13.1. Panchayat-wise Distribution of Population in Sanguem Block**

*Source: Respective Panchayats*

**Gender Ratio**: One of the impressive features of the demography in Sanguem taluka is highly favourable gender ratio which is more than 1000 in all the panchayats excluding Rivona Panchayat (Fig 13.2). Even the average gender ratio of the village panchayats in the block was 1037.
13.1.3. Finances of Panchayats

An analysis of finances of panchayats can help in assessing fund raising capacity of the panchayats in undertaking various development activities in achieving wellbeing of the villagers. However, there is no proper information about the sources of revenues and one of the panchayats (Uguem) has shown the amount received from grants and other sources as zero. In general, grant-in-aid from the State Government is the main source of combined revenues of all the panchayats (59%) followed by the revenues received under other State and Central Schemes (26%) (Fig. 13.3). The revenues from the Panchayats own sources such as House tax, fees and fines, rents, etc formed only 15% of the revenues.
Comparison between revenue and expenditure indicate that, revenue of Sanvordem was the maximum followed by Rivona and only in these two panchayats the revenue is greater than the expenditure (Fig. 13. 4). Among all the panchayats, the expenditure of Uguem Panchayat was the maximum for 2019-20 followed by Rivona. As Uguem has not shown the grants amount in its revenues, the gap (deficit) between its expenditure and revenue was maximum.
13.1.4. Basic Amenities and Services

All the panchayats have Anganawadis, Crematorium in sufficient numbers (Table 13.2). All the panchayats have at least one PHCs/CHCs/Sub Centre, while private hospitals/clinics are present only in three panchayats. In terms of facilities, Rivona is better placed in the block.

<table>
<thead>
<tr>
<th>Village Panchayat</th>
<th>Marke t</th>
<th>Crematorium</th>
<th>Anganwadi</th>
<th>Post Box</th>
<th>Gymnasiu m</th>
<th>PHCs/CHCs / Sub Centre</th>
<th>Private Clinics /Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rivona</td>
<td>2</td>
<td>4</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Uguem</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Sanvorde m</td>
<td>0</td>
<td>5</td>
<td>8</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Netravoli m</td>
<td>1</td>
<td>9</td>
<td>8</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Curdi</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Bhati</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Kalay</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>32</td>
<td>45</td>
<td>6</td>
<td>7</td>
<td>9</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 13.2: Panchayat-wise General Facilities in Sanguem Block  
Source: Respective Panchayats

13.1.5 Land Use Pattern

An analysis of existing land use pattern is useful to arrive at any future plan of development. However, due to large data gaps, it is difficult to analyse the pattern. To fill the gap, the Land Use Map of Sanguem taluka (Map No. 13.2) is being referred. The land use pattern downloaded from the Town and Country Planning, Government of Goa shows that Sanguem taluka has good forest cover, agricultural land, dam, mining area, rivers, etc.
Map 13.2: Land use Pattern in Sanguem Taluka, Goa

13.1.6 Livelihood Activities

The people in the village panchayats under reference depend mainly on agriculture sector (Table 13.3). Four of the panchayats of the block namely, Sanvordem, Kalay, Bhati and Rivona also depended on mining activities.

<table>
<thead>
<tr>
<th>Village Panchayat</th>
<th>Livelihood Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kalay</td>
<td>Agriculture, Direct and indirect employment in Mining, Services in Industries</td>
</tr>
<tr>
<td>Uguem</td>
<td>Agriculture, Services, Animal husbandry, Vocational, Mechanical, Electrical and Textiles</td>
</tr>
<tr>
<td>Sanvordem</td>
<td>Agriculture, Animal husbandry, Poultry, Fishing, Mining and Vocational.</td>
</tr>
<tr>
<td>Bhati</td>
<td>Services, Agriculture and Mining</td>
</tr>
<tr>
<td>Netravali</td>
<td>Agriculture, Animal husbandry, Poultry, Vocational, Mechanical, Electrical and Services</td>
</tr>
<tr>
<td>Rivona</td>
<td>Agriculture and Mining</td>
</tr>
<tr>
<td>Curdi-Vaddem</td>
<td>Agriculture and Animal Husbandry.</td>
</tr>
</tbody>
</table>

*Table 13.3: Panchayat-wise Livelihood Activities in Sanguem Block*

*Source: Economic Revival Reports of Respective Panchayats*

13.2. Issues and Suggestions for Economic Revival

The present section highlights the issues and suggestions provided by the various teams of Government College, Quepem and Multi-faculty College Dharbandora based on their study.

13.2.1. Agriculture Sector

The village panchayats of Sanguem taluka are agriculturally suitable. Hence, the common types of crops of Goa like paddy, vegetables, flowers, coconut, cashew and areca nut are grown in all the panchayats of Sanguem. Apart from these, sugarcane is grown in Kalaya, Netravalim and Curdi. Even pulses and cereals are grown in a few wards of Uguem, Bhati and Netravali.

**Issues and Suggestions:** The study groups based on their survey and focus group discussions have provided various issues and suggestions pertaining to agriculture in their specific study area (Table 13.4)
<table>
<thead>
<tr>
<th>Village</th>
<th>Issues</th>
<th>Suggestions</th>
</tr>
</thead>
</table>
| **Kalay** | • Large Unused cultivable land. Hence scope for paddy and vegetable cultivation.  
• Many households don't own land but interested to cultivate. | 1. Agricultural Schemes to be implemented.  
2. Proper irrigation facilities to be provided. |
| **Uguem** | • Availability of some non-cultivated or non-utilised land which can be utilised for farming.  
• Some farmers are not cultivating their land could be due to financial or other reasons.  
• Workshop / training is not provided. Hence use the traditional methods of cultivation  
• The existing cooperative societies in the panchayat are not much active. This could be due to the proximity of Uguem panchayat to Sanguem city and preference of people for neighbouring cooperative society.  
• There is effect of Climate change.  
• Wild animal problem to some extent.  
• Manpower problem is making serious issues as getting skilled labour for agricultural activities.  
• Land ownership issues to avail of subsidies and schemes | 1. Providing farmers with required support in utilising unused land for agriculture purpose.  
2. Necessary steps need to be taken by forest department or Government so the agricultural land is protected with fencing or by providing the wild animals with their needed food supply chain within the forest boards.  
3. Government needs to sort out land ownership issue for granting subsidy or other schemes to the farmers to encourage farming activities.  
4. Agriculture/Horticulture Schemes to be implemented.  
5. Proper irrigation facilities to be provided. |
- Soil testing is not done neither by farmers nor by government agencies. But farmers interested in soil testing to select the appropriate crop and to use necessary supplements for soil to improve the productivity.

<table>
<thead>
<tr>
<th>Area</th>
<th>Problems</th>
<th>Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanvordem</td>
<td>• Low market price for crops such as cashew nuts and sugarcane. • Manpower problem</td>
<td>1. Irrigation facility, fencing, Kissan card and encouragement for vegetables and horticultural crops needed.</td>
</tr>
<tr>
<td></td>
<td>• Insufficient supply of fertilizers. • Wild animal issues.</td>
<td></td>
</tr>
<tr>
<td>Rivona</td>
<td>• Low market price for crops such as cashew nuts and sugarcane. • Manpower problem</td>
<td>1. Unutilized land can be used for rubber plantation, floriculture, Green house.</td>
</tr>
<tr>
<td></td>
<td>• Insufficient supply of fertilizers. • Wild animal issues.</td>
<td>2. Awareness programmes on the available agricultural schemes such as Kisan card, subsidies on equipment and machinery.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Workshops and training for farmers on choice of right seeds, soil testing, hydrophobic farming and vermi-composting.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Good market price for their produces.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Proper irrigation facilities.</td>
</tr>
<tr>
<td>Netravlim</td>
<td>• Low market price for local crops like cashew nuts, fruits and sugarcane. • Wild animal issues.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. The use of modern scientific methods for farming should be encouraged.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Awareness programme on the available schemes such as Krushi cards, various subsidies on agricultural equipment and machinery.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Workshop and training for farmers regarding seeds choice, soil testing.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Proper facilities for marketing.</td>
</tr>
<tr>
<td>Curdi-Vaddem</td>
<td>• Production of paddy mostly for self-consumption. • Shortage of water especially from the month of February to</td>
<td>1. Improvement in irrigation facilities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Sophisticated boundary fencing to protect crops from wild animals.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Provision of updated technology by the</td>
</tr>
</tbody>
</table>
May have an adverse effect on the agricultural crops
• Fluctuations in the production of agricultural products.
• Low procurement price for their cashew nuts despite its superior quality.
• Lack of processing units for cashew-based products in Sanguem talauka.
• Wild animal issues.

agriculture department.
4. Annual Soil testing.
5. Training locals in the operation of machines by the agricultural department.
6. Higher procurement price for their cashew nuts which are superior in quality.
7. Fencing as well as maintenance of the same should be undertaken by Agriculture Department.
8. Proper Wildlife management.
9. Ward-wise planning of agricultural activities by Agriculture department.
1. Proper internet facility at local level to disseminate agriculture related information.

Table 13.4. Panchayat- wise Agricultural Issues and Suggestions, Sanguem Block

| Bhati | 1. Proper irrigation facilities needed.
2. There are a few polyfarms growing Orchids and other ornamental flowers and there is scope for its further expansion. Hence, training locals with skills to set up polyfarms is needed.

13.2.2. Tourism
Sanguem taluka with diverse natural attraction, has a great potential for eco-tourism activities which is already attracting tourists. The main tourist attractions of Sanguem are Bhagwan Mahaveer Sanctuary, Mollem National Park, Netravali Wild Life Sanctuary, Salaulim Dam, Tamdi Surla Mahadev temple and Organic spice farms.
There are 60 streams, 6 waterfalls, 13 ponds and two flowing rivers in the taluka (Table 13.5).

<table>
<thead>
<tr>
<th>Village panchayat</th>
<th>Rivers</th>
<th>Streams</th>
<th>Waterfalls</th>
<th>Ponds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rivona</td>
<td>1</td>
<td>25</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Uguem</td>
<td>1</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sanvordem</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Netorlim</td>
<td>2</td>
<td>18</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Curdi</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bhati</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Kalay</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2</strong></td>
<td><strong>60</strong></td>
<td><strong>6</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

*Table 13.5: Village Panchayat-wise Natural Water Resources in Sanguem Block*

*Source: Respective Panchayats*

The Panchayat-wise potential for ecotourism provided by the village panchayat level study teams are represented in the table 13.6.

<table>
<thead>
<tr>
<th>Village Panchayat</th>
<th>Ecotourism Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kalay</td>
<td>Scope for tourism being beautiful and scenic place. Adventure sports and farms can be developed.</td>
</tr>
<tr>
<td>Bhati</td>
<td>Since the village is surrounded by Netrvali Wild Life Sanctuary, there is a huge scope for Ecotourism.</td>
</tr>
<tr>
<td>Netrvali</td>
<td>The village is blessed with rich natural resources such as rivers, streams and waterfalls. The availability of ample water sources helps agricultural activities. Natural resources like streams, rivers and waterfalls are found in this village. One of the main attractions in the village is the <strong>Bubble Pond</strong> (budbudeachi talli).</td>
</tr>
<tr>
<td>Rivona</td>
<td>The different natural resources in the village are caves, springs, sand, mineral, river and forests.</td>
</tr>
</tbody>
</table>

*Table 13.6: Panchayat-wise Ecotourism potential in Sanguem Block*
13.2.3. Self-help Groups (SHGs)

There were 172 SHGs reported from Sanguem block (Table 13.7). Experts define SHGs as “self-governed, peer-controlled information group of people with similar socio-economic background and having a desire to jointly perform common purpose.” The scope and effectiveness of SHGs in rural economic development is well documented (Meenu Maheshwari, Shobhna Goyal., 2014).

<table>
<thead>
<tr>
<th>Village panchayat</th>
<th>SHGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rivona</td>
<td>40</td>
</tr>
<tr>
<td>Uguem</td>
<td>17</td>
</tr>
<tr>
<td>Sanvordem</td>
<td>35</td>
</tr>
<tr>
<td>Netorlim</td>
<td>21</td>
</tr>
<tr>
<td>Curdi</td>
<td>9</td>
</tr>
<tr>
<td>Bhati</td>
<td>15</td>
</tr>
<tr>
<td>Kalay</td>
<td>35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>172</strong></td>
</tr>
</tbody>
</table>

*Table 13.7: Panchayat wise Self Help Groups (SHGs) in Sanguem Block*

*Source: Respective Panchayats*

The Self-Help Groups Guiding Principle emphasizes on organizing the rural poor into small groups through a process of social mobilization, training and providing bank credit and government subsidy. From the review of the reports of the study groups we realise that SHGs are not functioning in a professional manner so as to achieve the goals of SHGs (Table 13.8). Based on the problems and issues related to SHGs, the respective teams have provided their suggestions to strengthen the functioning of SHGs. Many of the issues are common to all the SHGs under study.
<table>
<thead>
<tr>
<th>Village Panchayat</th>
<th>Issues</th>
<th>Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rivona</td>
<td>• Unaware of the schemes available for SHGs.</td>
<td>1. To generate job opportunities in COVID-19 crisis Panchayat should tie up with the SHGs and extend its support.</td>
</tr>
<tr>
<td></td>
<td>• Lack of market for their products like pickles, chivda, namkeens and laddus.</td>
<td>2. Preparing homemade masks, community farming basically - vegetables, flowers etc., food delivery to quarantine facility area, packing and distribution of food in the village, etc.</td>
</tr>
<tr>
<td></td>
<td>• Financial burden at home.</td>
<td>3. Small scale business like pickle, papad making.</td>
</tr>
<tr>
<td></td>
<td>• Phase of unemployment.</td>
<td>4. Panchayat should identify the market where these products can be sold and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Creation of awareness of available schemes for SHGs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Tie up with Panchayat and other government agencies.</td>
</tr>
<tr>
<td>Uguem</td>
<td>• Inadequate training facilities and technical person for supervision</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Lack of awareness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Marketing problem</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Low profit and weak financial management.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Lengthy procedure for availing facilities.</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Issues</td>
<td>Solutions</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Sanvordem</td>
<td>• No knowledge about officially registering their groups.</td>
<td>1. Tie up with the panchayat and other agencies</td>
</tr>
<tr>
<td></td>
<td>• Not business oriented.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Lack of awareness of Govt. Schemes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Lack of leadership</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Underutilisation of efficiency.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• No structured functioning and not well mentored.</td>
<td></td>
</tr>
<tr>
<td>Netorlim</td>
<td>• Not aware about the schemes available for the Self Help Group.</td>
<td>1. Guidance and training for maintaining records and accounts of their small-scale business.</td>
</tr>
<tr>
<td></td>
<td>• Lack of Financial support.</td>
<td>2. Training in the use of latest</td>
</tr>
<tr>
<td>Curdi Vaddem</td>
<td>• SHGs remain dominated by politically influenced members</td>
<td>1. Market and transport facilities need to be made available</td>
</tr>
<tr>
<td></td>
<td>• Self Help Groups are driven by incentives from the government.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Lack of knowledge to manage the groups.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• SHGs have failed to emerge as an institution of their own who can channelize the youth and other people in the village.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• SHGs are dependent on products from other states to sell during Zatras and other public functions in the village.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• SHGs fail to provide opportunities immediately to those who complete their degrees.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• People are least bothered of SHGs.</td>
<td></td>
</tr>
</tbody>
</table>
### Bhati
- Lack of transport facilities to sell their products.
- Lack of distributors in marketing the products made by SHGs.
- Lack of connectivity and technology to avail benefits of various schemes available.

### Kalay
1. Skill development and training required

**Table 13.8: Panchayat-wise Issues and Suggestions Related to Self Help Groups in Sanguem Block**

#### 13.2.4. Youth Power
The strength and future of any country lies in its youth and same is true for Sanguem as well.
The educated and empowered youth can bring about tremendous change in the society if they are determined and given a chance. Lack of exposure, motivation and formal training at times keeps the youth away from decision making / taking positions. Various issues and suggestions related to youths of Sanguem taluka provided by the Panchayat-wise study teams are presented in the table 13.9.

<table>
<thead>
<tr>
<th>Village Panchayat</th>
<th>Issues</th>
<th>Suggestions</th>
</tr>
</thead>
</table>
| Sanvordem         | • No alternate job facilities when mines were shut down.  
• The non-involvement of the youths in the decision-making process. | 1. Involving youth in planning process of the village.  
2. To identify places where new business or industry can be set up.  
3. To initiate reskilling of the youth and self-help groups for entrepreneurship.  
4. Project work can be given to educated youths to draw up a master plan on how to make the village self-sufficient. |
### Table 13.9: Panchayat-wise Issues and Suggestions Related to Youths in Sanguem Block

<table>
<thead>
<tr>
<th>Panchayat</th>
<th>Issues</th>
<th>Suggestions</th>
</tr>
</thead>
</table>
| Rivona          | - Lack of facilities in the village panchayat such as coaching classes for 10th and 12th standard students, higher secondary school, training courses in music, tailoring, dance, cooking, Gymnasium, sports complex.  
- They are not aware about the village Development Plan.  
- Unemployment Problem. | 1. The different employment options available for unemployed youth affected due to the lockdown are Poultry farming, Pharmacy, Cyber Cafe, Photo Studio, Tailoring, Coaching classes, Gymnasium, Music classes, Sports training, library and Heavy vehicle driving schools  
2. Farming of seasonal fruits, vegetables and Nursery. |
| Curdi-Vaddem    | - Lack of transport facility to schools and colleges as the school buses are available only for Scheduled Tribes students in some wards of the panchayat. | 1. Education to the youth so that they can incline towards taking up local economic activities.  
2. Involvement of scientifically educated youth in Panchayat Elections.  
3. Ward level counselling for students to enable them to choose their career. |

### 13.2.5. Animal Husbandry

Animal husbandry is an important branch of agriculture which contributes generously to rural economy and thereby to the national economy. The panchayat level reports reveal that Sanguem taluka in general has good potential for businesses related to animal husbandry. At many places, small businesses related to animal husbandry are being managed throughout the taluka. However, there are many genuine issues which the farmers have to face regularly.
Issues pertaining to veterinary services, awareness of Government schemes/subsidies, supply of fodder, etc are some of the common problems faced by the farmers in the block (table 13.10). The studies suggest that these issues should be addressed to improve the animal husbandry and related activities to revive the village economies.

<table>
<thead>
<tr>
<th>Village</th>
<th>Issues related to Animal Husbandry</th>
<th>Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kalay</td>
<td>• Many farmers are availing the subsidy schemes pertaining to animal husbandry. However, there is</td>
<td>1. Creating awareness, improved veterinary services and subsidy to buy cattle.</td>
</tr>
<tr>
<td></td>
<td>demand for additional help to buy cattle and veterinary services</td>
<td></td>
</tr>
<tr>
<td>Uguem</td>
<td>• Rearing / grazing of animal is difficult as locally available grass and feeder of animals has</td>
<td>1. Government should make available the required fodder with affordable rates to the farmers with in</td>
</tr>
<tr>
<td></td>
<td>become scarce. Therefore, dependent on fodder purchased either from societies or private agencies.</td>
<td>the panchayat area.</td>
</tr>
<tr>
<td></td>
<td>• Almost non existing veterinary services is in the village.</td>
<td></td>
</tr>
<tr>
<td>Sanvordem</td>
<td>• Problems with veterinary service, purchase of cattle, cattle shed and fodders</td>
<td>1. Creating awareness of Government Schemes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rivona</td>
<td>• Lack of awareness of schemes</td>
<td>2. Improved veterinary services</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curdi-</td>
<td>• Forest officials many times don’t allow goat rearing.</td>
<td>3. Subsidy to buy cattle.</td>
</tr>
<tr>
<td>Vaddem</td>
<td>• Veterinary services are available almost 10 kilometres away from the ward in Netravalim.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Netravalim</td>
<td></td>
<td>1. If forest area is allowed for grazing purposes then, dairy business may gear up.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Scope for production of dairy products since animal husbandry is one of the main occupations.</td>
</tr>
</tbody>
</table>
Table 13.10: Panchayat-wise Issues and Suggestions Related to Animal Husbandry in Sanguem Block

13.2.6. Micro Small and Medium Enterprises (MSME)

The panchayats especially, Sanverdem in Sanguem block have food processing units, food and beverages factories, garages, stone crushing units, and mining companies, etc. There is Scope for employment opportunities for village women in small scale industries under SHG. • Scope for production dairy products since animal husbandry is a one of the main occupations.


This chapter presents a comprehensive plan / proposal for the economic revival of villages of Sanguem taluka based on our analysis of the Village Panchayat level reports submitted by the teams of Government College Quepem and Goa Multi-faculty College of Dharbandora. In the first section the proposals are made for the revival of the village economies of Sanguem taluka. An effort is made to prescribe the action plan for the implementation of the proposals in the second section.

13.3.1 Agriculture

Many of Villages in Sanguem are rich in flora and fauna. Cool climate, good environment, water availability provides a great scope for agriculture based activities. The land in these villages are also suitable for horticulture, floriculture apart from the general crops of Goa. Considering the agricultural potentials of the Sanguem block we propose following for the revival and development of the villages.

Agroecology Business Model

Agroecology is a holistic approach that foster to reunite agriculture and local communities with natural processes for the common benefit of the nature and livelihoods. Sanguem taluka has rich biodiversity, the economic model for the upliftment of these villages should complement and support their natural heritage. Therefore, adopting an Agroecology Business Model would support the overall sustainable development of the villages.
The block has large forest cover with varieties of trees, plants and shrubs having medicinal values. This potential can be tapped without disturbing the ecology of this region. **Harvesting the medicinal plants/shrubs/trees of forested regions would inculcate a sense of belonging among the villagers leading to their conservation efforts.**

Even these villages might have huge potential for growing medicinal plants. Therefore, it is essential to identify the specific potentials of the villages to develop the medicinal plant farms. The following village panchayats may be selected for the implementation of this model:

<table>
<thead>
<tr>
<th>Type of Activity</th>
<th>Village Panchayats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agroecology Business</td>
<td>Uguem, Bhati and Netravali.</td>
</tr>
</tbody>
</table>

*Table 13.11: Specialized Sites Identified for Agroecology Business Panchayats of Sanguem*

**Cooperative Farming Model**

Many villages face the problem of shortage and high cost of labour and lack of equipment use for cultivation. Many farmers are not able to avail the subsidies for farm related activities due to the land ownership issues. As per the reports, some village panchayats like **Kalay, Uguem, Rivona** have large unutilised land, which can be used for floriculture, Green house, horticulture, etc. Cooperative farming can provide a solution for these issues of all the villages, especially for the panchayats of **Kalay, Uguem, Rivona**. The farmers’ cooperatives could be provided with high yielding verity seeds for boosting productivity.

**Setting up of Agri-Processing Units and Market Yard**

Agriculture sector can flourish only when it results in reasonable earnings. A higher price for the produces will be based on the demand for their products and bargaining capacity of the farmers. The development of agro-processing units will lead to increase in the demand for agri-products. As individual bargaining capacity is limited, it would be ideal to do away with the middlemen and resort to collective bargaining by forming farmers’ groups. A centralised market yard can be established where the products can be bought and sold.
13.3.2. Ecotourism

Ecotourism opportunities/potential of the Sanguem block can be realised by using Systematic and Scientific approach in planning. World-over the tourism potential based on eco-tourism principles has not been realised to the fullest yet. Sanguem taluka has the natural resources that could help in developing it as an Eco-tourism destination. The village Panchayats of Netravali, Kalay, Bhati and Revona can be chosen for sustainable ecotourism activities.

Activities for Individual Villages

Villages of Sanguem face many of the issues which are generally common to all the villages.

Proposal for Mitigation of Water Supply Problem

Sanguem villages despite being bestowed with ample water resources face the shortage of irrigation facility. We suggest that in general, water conservation practices should be adopted by each and every village of the taluka.

Rainwater harvesting: Rainwater harvesting is considered as a very reliable way to conserve water. A large volume of rain water can be conserved through Rainwater harvesting.

Groundwater Recharge: groundwater recharge is an important technique of recharging ground water levels. Groundwater recharge can be achieved through multiple “artificial recharge structures” such as recharge wells, direct borewell recharge, check dams (found in the rural context), etc.

There are various agencies, both governmental and non-governmental, which provide technical assistance in undertaking such projects. Village panchayats may approach these organisations for the technical know-how of a Groundwater recharge setup.

Some authorities at National level which are directly and indirectly working in this nation-wide initiative for rainwater harvesting are:

- Board Central Ground Water (CGWB)
- Central Soil and Water Conservation Research and Training Institute, Dehradun
- Central Arid Zone Research Institute (CAZRI)
- Ministry of Rural Development
Goa Government is also contributing towards rainwater harvesting by providing subsidies (Department of Water Resources, Government of Goa).

In this regard, we strongly recommend that individual panchayats should take initiative to address this issue in a scientific way. A task force may be constituted to address the issue at the taluka level so as to oversee the implementation of water conservation initiatives by the various villages.

13.3.3. Issues related to Animal Husbandry

It was learnt that the citizens of the taluka engaged with rearing cattle were facing hardship with respect to the availability of animal fodder and regular veterinary services. In this regard, we propose the wider extension of veterinary schemes in the taluka. Perhaps mobile veterinary -clinics can be introduced in the taluka for better reach of animal healthcare services.

The problem related to fodder could be addressed by arranging organised fodder from forests surrounding the villages. It is well known that forest litter helps in the growth of forest itself, but controlled scientific and systematic way of collecting forest waste/litter could perhaps help in mitigating this all-important problem of farmers. However, this aspect needs a thorough scientific inputs as it cannot be at the cost of the health of forests itself. We understand that the well-being of a society in general is dependent on the well-being of the natural resources surrounding it.
13.3.5. Awareness Programmes

It is understood from the review that the village panchayat members are unaware about the various Central and State Government schemes available for the overall development of the village and its citizens. Non-governmental organisations should be roped in to spread awareness about the various developmental schemes among the panchayats. In this regard Government institutions like Government College of Arts, Science & Commerce, Quepem, can play the role of facilitator by providing space, expertise and their reach to invite experts/trainers/consultants to interact with village representatives/leaders so that information, scientific know-how and awareness reaches the rightful beneficiaries.

13.3.6. Skill Development and Entrepreneurship Training

We propose that initiative needs to be taken to provide the youth with entrepreneurship training. With this in mind, we propose that one of the Village panchayat could be identified to setup a training school for providing all the necessary training/coaching to the youth of Sanguem. Local ICAR unit, Krishi Vigyan Kendra, Old Goa could be consulted to provide scientific training to the villagers for taking up best agriculture practices. Initiative should be taken to explore the possibility of setting-up of Agri-extension centres by ICAR/ Agriculture Department, Government of Goa in the taluka. This would ensure speedy implementation and wider spread of scientific knowhow among the farmers of the taluka.

For the success of all the proposed schemes it is necessary to have the requisite technical knowledge and know-how.

The potential entrepreneurs need to be acquainted with marketing skills, hence need to learn the modern techniques of marketing. The products and the uniqueness of the taluka need to be known globally. Therefore, it is very important to provide the concerned with proper skill and training to undertake these proposed endeavours.

Besides this, the local youth of the taluka who have better knowledge of the forest and are relatively well educated could be provided formal training to join the tourism sector as local guides/trekkers.
In general, it is realised that the youth lacks motivation in the absence of proper guidance, awareness and exposure. Here, institutions of Higher learning can play a major role in motivating, counselling and training the youth, exposing them to modern scientific skills and social awareness. All this can bring about social transformation where the youth themselves will step forward with entrepreneurship ideas thereby, contributing effectively towards economic growth.

13.3.7. “Sanguem Festival”- A Cultural Cum Economic Festival

In this globalised world, showcasing the product and talent is very important for effective marketing. We hereby propose that Government should take initiative in organising “Sanguem Festival” - a cultural cum economic Festival to showcase the talent, uniqueness and economic potential in terms of tourism and products to the entire world. The annual festival could be held on a rotation basis in the villages considering the availability of requisite infrastructure. The festival would also be a platform for the citizens from outside the state to explore the varied products of the taluka, besides providing a platform for the interaction of various entrepreneurs from all over the country.

13.3.8. Board of Experts

Scientific know-how is needed to implement many of the schemes. For the sustainable economic success and long-term impact, the schemes need to be implemented in a scientific way. Overall a well-planned and scientific approach is needed to implement the proposed plan.

**Expert advice and guidance** are required to implement various agro-based models. The type of medicinal plants, cash crops, vegetables, ornamental flowers to be grown should be supported by the climatic conditions and the edaphic factors prevailing at the sites. Hence, it is essential to study these aspects of the area before embarking on the implementation of such proposals.
Further, **ecologically sensitive areas** need to be identified and a fair assessment needs to be done about the impact of undertaking such activities on the overall ecology of the region with a purpose of making the model sustainable both economically as well as ecologically. The implementation of development model should complement and support the prevailing ecological conditions so that the balance between the environment and economics is maintained.

**Adoption of scientific methods of water harvesting** is the need of the hour so that the water woes of the public can be addressed effectively. Ground water recharging is an initiative which needs sustained efforts for long term success. Here again, experts have to be roped in to formulate a strategy for the implementation of the proposal. Overall, we propose that the recommendations should be evaluated on economic and scientific yardsticks for proper implementation.

### 13.4. Action Plan

The various proposals being made are based on the concept of ‘sustainability’. The results of many of these projects may not be seen immediately but would need 2 to 3 years. Accordingly, we propose following immediate, short term, med- term and long-term initiatives / actions to be undertaken for the revival of the village economies. The involvement of various stakeholders is essential in realising the proposed plan for economic revival of the villages.

#### 13.4.1. Immediate Initiatives During the Present Pandemic

We propose the following immediate measures to revive the economy during this time of crisis (Covid pandemic) to raise employment avenues for the youth and start production activity so that demand is boosted.

1. As a first step, SHGs could be trained to produce sanitizers, masks, etc. which have a good overall demand these days. This activity will not only provide the necessary material (masks, sanitizers etc.) for prevention of spread of Covid-19, but would also provide **means to earn** income for the people associated with the SHGs. We especially envisage youth to join this movement. We expect the demand for these products to
remain high for the next 18 to 24 months. Hence, there would be a ready market for these products.

2. Government agencies including Department of Panchayats could provide loans (from either their own corpus or through their resources) at nominal interest rates or could even provide the initial seed money to meet the initial expenses to setup units by SHGs to produce these products.

3. In the present times of pandemic, because of general lockdowns and restricted movement of public, essential commodities like vegetables/milk etc. are in shortage. Department of horticulture/civil supplies could buy vegetables/cereals and farm produces directly from the farmers at panchayat level so that the farmers would get security and immediate income. This would further encourage the small farmers to take up growing vegetables with greater vigour.

4. As a contingency measure we propose that the **Mahatma Gandhi National Rural Employment Guarantee** (MNERGA) scheme should be made more accommodative and widespread. In this difficult time of pandemic where there is loss of income, especially among rural dwellers, the employment guarantee scheme should encompass paying minimum wages to persons working on their own fields/farms. This will motivate the poor farmers take up farming activity with more vigour, besides boosting the demand side of the economy.

13.4.2. Plan for Agriculture sector and traditional occupation

A. Immediate Initiatives

1. To communicate effectively with the public/prominent citizens of the taluka about the proposals being made to revive the agriculture sector and its implementation.

2. **Setting up of taskforce** to look into the legal aspect of land ownership details of the sites which have been identified for the implementation of various schemes. Presently, the land ownership of the various sites identified for the various Agro-based businesses etc. is not known.
3. **Constituting a scientific committee** to identify the type of proposed activities which are ecologically sustainable in the region. This should include agro-ecology business and agro-tourism feasibility, depending upon the ecology of the area and the supporting climate in the region. The team may include agricultural scientists, members/officials of forest department/academicians/environmentalists/economists.

4. **Constituting an Economic Committee** to look into the aspects of forming cooperatives and preparing a PPP model for the entire taluka. The revenue and responsibility sharing aspects of the entire project needs to be proposed by this committee. The committee should also look into the modalities of organising “Sanguem Festival”, development of Market Yard Complex and Ago-processing units.

5. **Youth training**: An action plan needs to be drawn to train the youth of the taluka based on their existing strengths. The modern scientific methods of agricultural practices need to be taught to the young farmers. Concept of poly-houses, greenhouses, mixed cultivation along with floriculture practices should be known to the farmers. The training could be *in situ* or could be held/organised in an institute. We propose the help of local ICAR office / Ela Farm/ Department of Agriculture in this endeavour. Local ICAR office along with agriculture department may be approached to conduct a proper scientific training for the farmers of the region.

Further, the study has brought to the fore the unrecognised and untapped skills of the youth of Sanguem taluka. A formal training for sharpening the existing skills among the youth and the traditional craftsmen can go a long way in making them self-reliant. The training should include introducing them to mechanisation in terms of design and execution so that the application of their skills can be done at a larger scale. Along with the training on streamlining the production, training may be needed to market the finished products so that they reach a larger market and wider consumer base.

We therefore, propose an integrated approach to train the traditional craftsmen, youth and farmers in making them more efficient in terms of producing goods (including farm produce) and also helping them to market their products.
B. **Short Term Initiatives (Below One Year)**

1. Organisational committees/members (village members, the actual work force needed for the various projects to be taken on board. (In short, grassroot level identification of work force. Only local workers need to appointed).

2. During this period the ground work for implementation of the schemes should be done. (Hopefully by this time a clearer picture about the funding and revenue sharing would be known to the public and actual implementation could start).

3. After the identification of suitable plant/floral varieties, actual farming activities could start. Similarly, proper identification of traditional skills/artisans of the area should be complete by this time.

4. SHGs and Youth can be encouraged to start the production of the items.

C. **Mid Term Initiatives (1 to 3 years)**

1. Identifying markets for ornamental flowers/medicinal products of plant origin/ tying up with companies for the plant based raw material for medicines.

2. Deciding the Revenue and / responsibility sharing pattern.

3. Establishment of Supply chain.

4. Marketing the produce to a wider consumer base.

5. Providing warehousing and cold storage facilities for vegetables/fruits/flowers etc.

D. **Long term Initiatives (Beyond 3 years)**

Sustaining the development of all the environmentally friendly activities, which are in force and establishing the planned enterprises. We assume that in the next three years and beyond the proposed short term, mid-term initiatives/efforts would start bearing the fruits and the processes/enterprises proposed would be fully functional and running.

It is understandable that starting any processing unit whether agriculture based or otherwise would need time. If the efforts are put in right earnest, with the support of the citizens and government agencies the units would start providing consistent income in the long run. The
proposed units would be ready and functional by the time the raw agro-product supply becomes regular from the proposed farm activity.

In addition to this the processing units for which the raw material is already available like, cashew, coconuts, milk etc. would be the first ones to provide a steady revenue in the next five years.

13.4.3. Tourism Sector

A. Immediate Initiatives

1. To communicate effectively with the public/prominent citizens of the taluka about the proposals for boosting tourism in the taluka. This would be first step in building confidence among the citizens.

2. Setting up of taskforce to look into the legal aspect of land ownership details of the sites which have been identified for the implementation of various tourism related schemes. Presently the land ownership of the various sites identified for Eco-tourism is not clear. This is important to address the land-ownership issues of the citizens of the taluka.

3. Constituting a scientific committee to identify the type of tourism activities which are ecologically sustainable in the region. This should include, eco-tourism feasibility, calculating the carrying capacity of the region and care to be taken towards protecting the ecology of the area. The feasibility of undertaking wildlife tourism keeping in mind the laid down laws on protected areas should also be considered by the Expert scientific team. The team may include members/officials of forest department/academicians/environmentalists/economists.

4. Constituting an Economic Committee to look into the aspects of forming cooperatives and preparing a PPP model for the entire taluka. The revenue sharing aspects of the entire project needs to be proposed by this committee. The committee should also look into the modalities of organising “Sanguem Festival”, development of Market yard complex, and Ago-processing unit.
5. **Youth training**: Tourism is a global business. The type of tourism activities being envisaged in the taluka would attract lot of international travellers as well. To cater to such tourists, it is important for the local entrepreneur to know the norms and requirements of international hospitality industry. The local youth need proper training in this discipline. We propose train the youth of Sanguem in hospitality business through proper training module. The GIPARD can take initiative in collaboration with the educational institutions.

**B. Short Term Initiatives**

1. Organisational committees/members specifically for tourism sector, village members should be taken on board for the various projects.
2. During this period the ground work for the implementation of the tourism related proposals should be done. (We expect a clear picture emerging by this time about the funding and revenue sharing which would be known to the public). Thus, the actual implementation of the proposals/projects could start.
3. After proper identification of tourist places the actual work/ infrastructure needed for the projects could start.
4. Simultaneous identification of local wildlife experts, Enrolment of villagers with local knowledge of animals and plants to undertake eco-tourism trails for avifauna/trees/animals etc. should happen.
5. Locals involved with cultural tourism to be given training on hospitality and modern tourism principles.
6. It is important to identify the potential market the tourist places. Meanwhile modern tools like online marketing need to be undertaken to advertise the places of tourist interest.
7. Keeping the revenue sharing model ready for building confidence among the stakeholders.
8. **Encouraging Home Stay for Tourism** to help villagers to earn an income along with provision of exposure of country living style to the tourists.
C. **Mid Term Initiatives**

Strengthening the infrastructure/facilities for better management of tourists and the resources (the tourist places).

D. **Long term Initiatives**

Any economic model should be based on the principle of sustainability. It is very important to realise that business is a ‘**Going concern**’ and thus, should be sustainable. In order to meet this challenge, the resources should not be exhausted. It is extremely important to identify the potential of tourism and to protect and preserve it for sustaining the business. The business model needs to be revived/modified/reinvented depending on the circumstances. The changes in global and local tourism industry and the prevailing geo-political and socio-economic conditions at the time (03 years and beyond) should shape the new model in our local setup. Thus, all the prevailing conditions at that time (three years and beyond) should be the guiding light for taking proper initiatives.

### 13.5 Concluding Remarks

Sanguem is an important hinterland taluka in the state of Goa. Though primarily an agrarian economy, presence of forests and mines do contribute to the overall economy of the taluka. As in the other hinterland talukas of the state, Sanguem taluka also was not much affected during the nationwide lockdown implemented due to Covid-19 pandemic. Nevertheless, taluka has its own characteristic problems/issues which affects the overall economy of the taluka and thereby of the State.

Through this report we have made a humble effort in proposing few projects/schemes for the overall revival of the taluka’s economic condition. The analysis of the reports submitted by the various teams of Government College Quepem and Multi-faculty College, Dharbandora suggested that Sanguem taluka is blessed with generous natural resources and has its unique strengths. There are avenues for hinterland tourism which are to be explored further.
Moreover, the taluka shows promising potential in the sectors of agriculture and animal husbandry.
The suggestions given in this report are primarily based on the reports of the various teams who worked on the individual panchayats. However, data was also drawn from other sources. Lack of comprehensive, strong economic data was one of the biggest limitations of our analysis. Overall, we believe that a wider much more focused and comprehensive study based on strong dataset is needed to further strengthen the proposals and projections for the taluka. We have tried to follow the principle of equity while proposing projects/schemes for the entire taluka so that the economic benefits are spread uniformly and also there is not much burden on Governments exchequer for the implementation of the proposals. We do believe that the proposals made in this report are implementable with the support of all the concerned stakeholders keeping in mind the proper legal and administrative provisions.
Chapter – 14
Conclusion

The exhaustive study under by the Directorate of Higher Education and GIPARD has brought out detailed issues and concerns of each Village Panchayat across the State of Goa. There are numerous such concerns identified by the Elected Representatives and villagers in all the twelve talukas in Goa. The said concerns have come up across different sectors which are listed below:

1. Agriculture
2. Animal Husbandry
3. Water Supply and Irrigation
4. Tourism
5. Fisheries
6. Natural resources
7. Skill development
8. Micro, Small, Medium Enterprise
9. Self Help Groups
10. Youth and Adolescents
11. Senior Citizens
12. Implementation of schemes

The study has also presented a list of proposals and suggestions which can be incorporated in the formulation of an economic revival plan for the State of Goa. The final draft incorporating the detailed Action Plan could be completed by 2\textsuperscript{nd} October 2020.
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