

# **SAGY VILLAGE DEVELOPMENT PLAN FRAMEWORK**

## **PREFACE**

The process of preparation of the Village Development Plan under SAGY has been detailed in the scheme guidelines. The plan has to be prepared by the GPs with professional and technical support to be mobilised from officials, practitioners, professionals and other experts both from within and outside the Gram Panchayat

In order to ensure that the plan is really responsive to local needs and people's priorities, there has to be detailed Situation Analysis covering different aspects, themes and sectors related to local level development.

As per the guidelines the Situation Analysis itself has to be take into account the quantitative data, primarily from the baseline survey and also from other sources and more importantly the qualitative information from the Participatory Assessments.

As SAGY is basically about developing different models of local development with as many local innovations as possible, it's not intended to prescribed rigid procedures. However gleaning from best practices, suggestive guidelines on the conduct of Situation Analysis have been attempted and given as Part A of this document. Situation analysis has to be adapted as appropriate to the local context. This is also an Appendix which outlines certain key Participatory Rural Appraisal techniques which could be utilised to capture the people's understanding and perceptions to enrich the Situation Analysis.

Further in response to requests from the field, a model structure of the Village Development Plan document has been developed and given as Part B. This has to be followed to the extent possible with additional chapters as locally felt necessary.

# **PART-A**

# **PREPARATION OF SITUATION ANALYSIS DOCUMENT – SUGGESTIVE MODEL**

## **Introduction**

Before the Gram Sabha can initiate the process of planning, it needs to have a detailed situation analysis of the Gram Panchayat, relating to different development aspects, presented before it. Once the Situation Analysis is available to it, the Gram Sabha can form subgroups comprising of relevant officials, PRI functionaries, relevant civil society workers, and selected villagers (especially youth and women) who are the key stakeholders.

The District Collector should put in place a team for coordinating the situation analysis headed by the Charge Officer, consisting of:

1. Elected Gram Panchayat Chairperson
2. Line Department Officials at the block level along with the cutting edge level officers for the Gram Panchayat
3. Officers from the Statistics and Planning Department(s)
4. Representatives of Community Based Organisations - like SHG Federations
5. Experts from Civil Society Organisations
6. Experts from academic and research institutions

The Situation Analysis should be prepared using the following data.

1. Information thrown up in the Pre Planning Stage – during discussions, meetings, consultations etc.
2. Secondary Data - like Decennial Census, Draft SECC Data, Livestock Census, Forest/Revenue and Land Records, Data from Schools, Anganwadis, Health Institutions, Data of SHGs, data on drinking water and irrigation sources, MGNREGS data,
3. Data obtained through the baseline survey
4. Information from Participatory Rural Appraisal (PRA)

The District Collector should ensure that the relevant secondary data required for the situation analysis are made available to the team.

## **Suggested Contents of the Situation Analysis Document**

The Situation Analysis can have two parts. The first part can be a profile of the Gram Panchayat.

## **PROFILE OF THE GRAM PANCHAYAT**

1. Location (with maps)
2. History & Culture
  - a. Points emerging from recorded events if any
  - b. Commonly accepted local oral history
  - c. Points emerging from historic time lines (PRA)
  - d. Festivals, Fair and other cultural events
3. Geographic features
  - a. Lie of the Land
  - b. Flora & Fauna including information on forest
  - c. Rivers, Water Bodies, status of Ground Water
  - d. Soil and other Natural Resources
  - e. Climate including rainfall
4. Demographic Features
  - a. Population & number of households, density
  - b. Settlement Pattern (habitations)
  - c. Sex Ratio (incl.0 to 6 Sex Ratio)
  - d. Religious Composition
  - e. Caste Composition
  - f. SC/ST Composition
  - g. Persons with Disabilities
  - h. Age Profile (Along the Life Cycle)
  - i. Literacy & Education
  - j. Land Holding Pattern
  - k. Occupational Pattern
  - l. Migration Pattern
5. Administrative Profile of the Gram Panchayat
  - a. Composition of the Gram Panchayat
  - b. Functions performed by the Gram Panchayat
  - c. Resources of the Gram Panchayat
  - d. Officials & Institutions under the gram Panchayat
  - e. Other public institutions / Offices  
*(Different committees/functionalary within the jurisdiction of the Gram Panchayat may be listed and their functioning outlined). People's Institutions*
  - f. Cooperatives
  - g. SHGs

- h. Other Collectives (e.g. Farmers' Groups)
  - i. User Groups
  - j. Youth clubs
  - k. Sports & Arts Clubs
  - l. Libraries
6. Economic Resources
- a. Land Use
    - i. Agricultural Land (Cultivated Land – wet & dry land, irrigated and unirrigated land)
    - ii. Cultivable Fallow
    - iii. Uncultivable Land
    - iv. Cropping Pattern (Food & Non-Food)
    - v. Orchards & Plantations
    - vi. Pasture – common and private
  
  - b. Livestock Profile
  
  - c. Other Natural Resources
  - d. Water Bodies including Irrigation Structures
  - e. Forests – including and those on revenue land
  - f. Mines (Minor & Major)
  
  - g. Other Economic Resources
    - i. Manufacturing Units – including small scale and cottage industries
    - ii. Commercial Units
    - iii. Markets
    - iv. Storage & Warehouse facilities
    - v. Banks & financial institutions
7. Infrastructure & Civic Facilities
- a. Roads & Public Transport
  - b. PDS centres
  - c. Electricity
  - d. Sanitation
  - e. Sports, Recreation & other community facilities
  - f. Post offices
  - g. Telecom facilities

## **General methodology for situational analysis:**

Using the data from secondary sources the baseline survey and information gathered from PRA, the present status of different development areas may be analysed and presented. Thus it will be a synthesis of conclusions from quantitative data and the insights from peoples' perceptions.

Chapters of the Situation Analysis can be as follows. This is, of course, indicative and the states / districts can modify this as per their local need.

1. Status, Issues and Challenges relates to Infrastructure
  - a. Roads
  - b. Energy
  - c. Irrigation & Water Harvesting
  - d. Telecom and IT
  
2. Status, Issues and Challenges relates to Human Development
  - a. Poverty
  - b. Education
  - c. Health
  - d. Nutrition
  
3. Status, Issues and Challenges relates to Social Development
  - a. Specific Groups
    - i. SC
    - ii. ST
    - iii. Gender
    - iv. Elderly
    - v. Youth
    - vi. Children
    - vii. Persons with Disabilities
  - b. General Issues
    - i. Violence & Crime
    - ii. Social evils (like untouchability, trafficking, substance abuse)
  
4. Status, Issues and Challenges relates to Governance
  - a. Participation
  - b. Service Delivery, including responsiveness
  - c. Transparency and Accountability, including grievance redress
  - d. Corruption
  - e. Capacity

5. Status, Issues and Challenges relates to Economic Development
  - a. Agriculture
  - b. Allied sectors
  - c. Manufacturing, includes rural industries
  - d. Services
  - e. Employment
  
6. Status, Issues and Challenges relates to Ecology & Environment
  - a. Natural Resources
    - i. Degradation
    - ii. Depletion
  - b. Bio-diversity
  
7. Status, Issues and Challenges related to Civic and other Amenities
  - a. Housing
  - b. Drinking water
  - c. Sanitation
  - d. Streetlights
  - e. Sports and recreation
  - f. Parks and other amenities
  - g. Banks and postal services
  - h. Common Service Centres
  - i. Burning and burial grounds
  - j. Public transport
  - k. PDS

### **General for Situation Analysis**

1. In the case of infrastructure, identify the gaps. For example, in respect of physical connectivity, list out habitations without roads; length of road required etc. This could also include repair, restoration up gradation and new construction. Likewise for irrigation, the unirrigated areas have to be marked out and the most cost effective systems identified for maximum coverage- this would include improving existing sources, identifying new sources, adopting new technologies like drip, micro irrigation, water harvesting and conservation etc.

2. In the case of social development, identify the main problems and issues as commonly perceived and accepted and list out the causes mainly from peoples' perceptions and expert opinion. For example in the case of tribal development issues like land alienation and degradation, lack of skills and employment opportunities and lack of access to public services and amenities can be sharply delineated and discussed.
3. In the case of economic development, the focus should be on the potential that can be reasonably and sustainably achieved. For example, the constraints on increasing agricultural production, and productivity, linking to markets, adding value etc. can be enumerated.
4. In the case of human development, deficiencies need to be assessed and addressed. For example, reasons for not achieving the minimum levels of learning, causes for dropouts, reasons for malnutrition etc. have to be identified.
5. In the case of ecology and environment, factors affecting sustainability have to be identified, for example, depletion of groundwater; degradation of agricultural land etc. could be analysed
6. In the case of governance, the emphasis should be on determining causes of inefficiency, ineffectiveness, delay, corruption and other malfeasance etc. This should cover both Gram Panchayats and other public institutions in the locality
7. In the case of civic amenities, the effort should be to analyse why the set standards of service provision and delivery are not being attained. For example, in sanitation, the levels of both solid and liquid waste generated and not properly disposed of, need to be studied.
8. From the situation analysis, should emerge, suggestions on what needs to be taken up immediately in the short term, and what needs to be taken up in the longer term. Also there should be clarity on what the people themselves would do – like behavioural change, community contribution etc. - and what needs to be addressed through different schemes and sources of funding. While preparing the situation analysis, inequities- regional and social, should be clearly brought out along with reasons.

The most important part of the situation analysis is that it should prioritise the needs and problems of the Panchayat, emerging from the data and validated by the community and then finally in the Gram Sabha. While prioritising, criteria such as intensity of need, acceptance by the people, level of impact (area, number of beneficiaries etc.), availability of affordable technology, existence of capacity for execution, value for money, fund availability etc. need to be considered.

## **SITUATION ANALYSIS**

### **CHAPTER I: INFRASTRUCTURE**

1. Roads
2. Telecom & IT
3. Irrigation
4. Energy

Infrastructure facilities in a village can be varied. For the purposes of the situation analysis of the SAGY, the four main categories under consideration are roads, telecom and information technology, irrigation and energy sources. These are both ends in themselves and means to an end. Therefore, the objective is to analyse whether the combination of all these factors provides the basic hardware to a Gram Panchayat to optimise all the other resources present to improve the wellbeing and quality of life of its citizens.

#### **1. Roads**

Roads represent a key infrastructure in the form of facilitating connectivity of persons and goods and services to important institutions and markets. There are several aspects from which this can be analysed; the connectivity of villages within the panchayat and that of the panchayat to major nearby landmarks. Then, the layout and the quality of the roads can be assessed. For this section it will be useful to draw a map of the road layout showing the characteristics of the roads and their hinterland and marking the gap.

The first step would be a baseline of the existing roads in the panchayat. The following categories are suggested:

- a. Nature of road – pucca/katcha
- b. Usability of road – motorable/non-motorable
- c. Maintenance – well maintained/need of repair

For each of these categories, the roads can be studied for their total number, length (in kilometres) and their technical specifications like width, surface, all weather etc. and quality.

A Gram Panchayat may consist of more than one revenue village and smaller settlements. While a main road might exist to a common central point, the accessibility of all settlements must be ascertained. For this the total number of hamlets without any or only partial access to roads needs to be noted along with the population of such hamlets. Roads required for improving collection and marketing of local produce need to be specially identified.

This can be overlaid with the social map of the region to check for adequacy of social coverage.

In addition to this, feedback from residents of the panchayat on the qualitative aspects of the roads is essential. The following issues could be touched upon:

- a. Peoples' perception on the usefulness and accessibility of existing roads
- b. Demands for widening roads versus environmental concerns
- c. Peoples' perception on the required budget to build roads
- d. Peoples' perception on the quality of existing roads
- e. Peoples' perception of the need and specifications for new roads
- f. Peoples' perception on the priorities for providing access to unconnected habitations

From this process, issues will emerge that will need to be dealt with while formulating the plan for the GP. Examples of potential issues are:

- a. 100% habitations not connected to weather roads
- b. Roads not properly maintained
- c. Drainage alongside roads inadequate
- d. GP not connected directly to major towns, block office, markets, educational institutions and transport nodal points

Before a plan can be drawn based on this, the possible causes for the existing situation are important to note. For example:

- a. Lack of regular maintenance of roads
- b. Skewed development of roads
- c. Lack of proper planning of roads to benefit all persons
- d. Lack of funds to maintain roads
- e. Lack of proper specifications (such as cross drains, bridges etc.)

The analysis related to roads will be straightforward and could be presented in the following format:

<b>Activity in Plan</b>	<b>Type</b>	<b>Details</b>
New roads needed		
Up gradation/Widening of Roads		
Repair of existing roads		

The main effort subsequent to this will be the prioritisation of the type of roads to be taken up based on socially and technically acceptable criteria.

## **2. Telecom and Information Technology**

Telecom and IT connectivity are criteria for development of a rural area. Though they may be largely promoted by the private sector, it is necessary to describe the status showing the gaps and possibilities. The first step will be to assess the available connections, then their uses, their quality and their adequacy. The assessment of available connections can be done as follows:

	<b>Mobile</b>	<b>Landline</b>	<b>Internet</b>
Number & listing of connections/related infrastructure /providers			
Number of individual users			

Next, the uses of these available connections can be classified as follows:

	<b>Phone Connectivity</b>	<b>Number of Computers/Laptops</b>	<b>Internet Connectivity</b>
Gram Panchayat Office			
Bharat Nirman Rajiv Gandhi Sewa Kendra/Common Service Centres			
Schools			
PHCs			

This is only indicative. There might be further needs for electronic connectivity. These may also be listed and the extent of connectivity needed noted. The connectivity

requirements for making the schools smart should specifically be noted. This exercise will throw up the potential requirements for connectivity as well.

Once this is done, the qualitative aspects of this can be examined such as:

- a. Quality of connectivity (patchy/medium/good)
- b. Expenses involved in acquiring connection
- c. Reliability of connections
- d. Speed of internet connections (2G/3G)

The issues that might arise from this are:

- a. Lack of connectivity
- b. Uneven access to connectivity
- c. High expenses to access connectivity
- d. Unreliable and low speed of connectivity.

The possible causes for this situation could be:

- a. Inadequate providers as compared to users
- b. Remoteness of GP
- c. Inappropriateness of technology
- d. Unexplored potential uses of connectivity for different purposes

From this, the needs and challenges can be assessed. For example, there might be sufficient connectivity; but not for public institutions. The bandwidth might be too low to meet the expectations for connectivity. For GPs that are very remote, the costs of bringing connectivity will depend on certain other factors such as electricity, roads etc. In a sense, it can follow only when certain other basic infrastructure facilities are in place.

The analysis will cover all providers both public and private, and the plan should take into account their plans for expansion. Details of availability of Internet Cafes, cable connections, satellite connections, VoIP etc. should also be assessed and potential noted.

### **3. Irrigation**

This section is closely linked to the analysis of economic resources and the analysis that will emerge from the resource map of the participatory rural appraisal process. To take this forward, this should preferably be accompanied by a map of the village and explanatory diagrams showing the difference micro watersheds. First, the sources of irrigation need to be noted. Also note whether it is major/medium or minor irrigation that benefits the Gram Panchayat. The following can be indicative:

		Irrigation Canals	Farm Ponds	Open Wells	Tube Wells	Other Water Harvesting Structures	Rivers/ Streams + lifting of water
Number of structures	Public						
	Private						
Dimension							
Capacity period of availability (in months)							
Number of farmer benefited MF SF Others SC ST Others							
Area benefited MF SF Others SC ST Others							

Next, the full practices can be captured as follows.

	No of farms	Farm area
Irrigated		
Non-irrigated		
Partially irrigated		
Total		

Then a discussion on the qualitative parameters of the existing irrigation structures and need for more may be discussed. There will be some overlap with the social map and resource map section but the following need to be covered; slope of land, water channels, soil types, drainage pattern, area that has high run off, varying crop yield.

An important tool is the historic timeline of the area on these patterns; has rainfall increased or decreased, has ground water increased or decreased and the other points mentioned above. Patterns in land degradation and deforestation can also be noted.

From this the issues will emerge such as:

- a. Existence of barren uncultivated land
- b. Existence of arable uncultivated land
- c. Productivity of land and crops
- d. Erosion of soil
- e. Run off of water
- f. Home of maintenance of the irrigation and water harvesting structures

From this, the potential challenges will be evident. For example, there might be high run off in a certain structure without adequate resources to construct water harvesting structures. In certain areas, water conservation structures might not be sufficient and there will be need for irrigation. In other areas, reviving barren land will require more than just an irrigation structure. Different land types will have different needs, for example terrace farming will require a certain kind of drainage channel between the terrace farms.

The analysis related to irrigation to be presented in the following format:

<b>Activity in Plan</b>	<b>Type</b>	<b>Expected area to be covered</b>
New irrigation structures needed		
Up gradation or increasing efficiency of existing irrigation structures		
Repair of existing structures		

The potential for drip/ sprinklers/ other micro irrigation possibilities needs to be documented

Where irrigation structures are not feasible, water and moisture conservation through watershed management is the only option.

#### **4. Energy**

Energy use in a village is primarily for:

- a. Cooking
- b. Lighting
- c. Agriculture
- d. Other types of economic activities

To begin the analysis, the sources of energy for these various uses should be identified and their adequacy and quality

The following may be the various sources: wood, kerosene, biogas, LPG, electricity (from the grid and off the grid), solar, wind and other renewable energy, if any

<b>Use</b>	<b>Source</b>	<b>Type (public/ private)</b>	<b>Units</b>	<b>Quantity in units</b>
Lighting – Domestic Use				
Lighting - Community				
Cooking				
Agriculture/Irrigation				
Industry				
Other Economic Activities				

A specific sub set in this is electrification which must be compiled separately given its significance.

<b>Electrification</b>	<b>Households (SC/ST/ Others)</b>	<b>Public Buildings</b>	<b>Skills</b>
Number electrified			
Number un-electrified			

The following can be discussed with reference to the qualitative data parameters:

- a. Regularity of power supply such as hours of power supply : domestic & nondomestic (agriculture & others)
- b. Power cuts
- c. Voltage of power
- d. Illegal & un-metered connections

- e. Distribution of power sources between various uses
- f. Potential for renewable energy

The following are the issues:

- a. Insufficiency of energy supply for households
- b. Insufficiency of energy supply for agriculture and irrigation
- c. Insufficiency of energy supply for industry
- d. Inadequacy of transformers etc
- e. Requirements for extension of line
- f. Affordability of newer sources of energy

This can lead to a discussion on the possible challenges that will emerge while tackling the energy needs of a Gram Panchayat. The distinction can be made broadly between private and public use and between agriculture, industry and domestic use. The most likely challenge that will emerge is the growing needs for energy and the lack of adequate sustainable means for it. While analysing the situation, adequate energy needs for all persons should be taken on board. The gaps thus identified and the analysis can be presented in the following format:

<b>Suggestions</b>	<b>Use (Domestic/Agri culture/ Industry)</b>	<b>Details of expected beneficiaries households</b>
New sources of energy required		
Increase/Extensions of existing resources		
Harnessing alternative sources to meet existing needs (such as fuel plantations, wind, solar etc.)		
Increasing efficiency of existing energy sources		
Improving changing energy efficiency in households (such as chulas, bulbs)		

### **Cross- cutting Summery**

From the above sections on roads, telecom and information technology, irrigation and energy, a comprehensive picture of the situation on infrastructure should emerge. Though these are being analysed separately, they are inter connected and therefore the plan will also be so. For example, a panchayat which has bad roads, no phone

connectivity, no irrigated land and bare electrification will have to prioritise its needs on what to approach first in terms of infrastructure development.

## **CHAPTER II: HUMAN DEVELOPMENT-EDUCATION, HEALTH, NUTRITION AND POVERTY**

Human Development includes within it, basically parameters of health, education and poverty. Health includes nutrition and sanitation. Education includes early childhood care, school and higher education. Poverty includes the institutions of poor and service delivery at the local level.

### **Demographic Information**

Human development information starts with basic demographic details on households, number of habitations in a GP and details about people who live in the GP. Habitations and their distance between each other provide information about social and economic relationships. Similarly, information about communities and religious composition helps us to analyse the social situation in the GP. A lifecycle approach is to be followed, looking at all persons - be they children, adolescents, youth, men, women and the elderly. After getting this information, it is useful to see if, for example, the number of women or girls is very low, or the number of elderly is very high. If so, then, these issues have relevance for programs for women, girls or elderly.

The data table, where information can be collected from the Panchayat register, the DRDA records, the Anganwadi records, Census and the primary survey is shown below. First step would be capturing the data in terms of households and habitations:

	<b>Items</b>	<b>General Category</b>	<b>SC</b>	<b>ST</b>	<b>Others</b>	<b>Total</b>
1.	Number of Habitations in the GP					
2.	Number and % of Households in the GP					

Then, it is useful to capture the social composition of the village and perhaps track it with the locations of the habitations etc. and SC/ST habitations need to be mapped.

Next step would be to look at the number of persons in terms of their age and gender as presented in the following table:

	<b>Items</b>	<b>Female</b>	<b>Male</b>
1.	Number and % of infants and children under 5		
2.	Number and % of children 5-10		
3.	Number and % of adolescents (10-19)		
4.	Number and % of adults(working population) 15-59		
5.	Number and % of aged (above 60)		

After identifying population specific data, it is useful to get the sex ratio and juvenile sex ratio and the 'transgendered persons'. The needs and concerns of the transgendered are important. These should also be identified, even if the number of transgendered in a GP may be very small.

Then, literacy related data can be used can be compared with the literacy rate for the state. This data will help plan the functional and adult literacy initiatives, especially for women and other vulnerable persons.

	<b>Items</b>	<b>Number</b>	<b>Percentage</b>
1.	Number of literate adult men(15-59)		
2.	Number of literate adult women(15-59)		
3.	Total		

Disabled persons and services for them are an important aspect of human development situation analysis; therefore, after looking at households and all persons in the village, the number of disabled must be identified. These need to be analysed with respect to education, work and social needs.

	<b>Items</b>	<b>Female</b>	<b>Male</b>
1.	Number of children below the age of 14 with disability		
2.	Number of adolescents with disability		
3.	Number of Adults with disability		

Also the types of disability and their situation needs to be analysed

### **Possible Challenges to be analysed:**

Analysing the data and the situation it presents, the possible challenges that can come up for the village development are:

1. The location of the different habitations and the number of households can suggest need for infrastructure and civic amenities.
2. The disparity between men and women and/or boys and girls in terms of sex ratio could indicate practices like female infanticide/foeticide or boy preference or differential treatment of male and female children.
3. The disparity between literacy rates between men and women and boys and girls may be because girls are not sent to schools or taken out after a particular age. Adult women and men may not be literates and that can affect their participation in the village life.
4. The concerns of the disabled children as well as adults in terms of their pensions, entitlements and educational and health needs.
5. The concerns of the elderly in terms of health, insurance, pensions and work.
6. The issues experienced by transgendered persons in the GP.

### **Education:**

Education includes school education as well as higher education. It also includes opportunities for vocational training and skill development. All children from all habitations need to have access to schools. Mere enrolment and transition to higher classes is not enough. The quality of education in terms of the learning levels is also crucial. The issues to be analysed would include,

1. Physical access to Anganwadi or schools-Many habitations within a GP may not have access to Anganwadi or a mini Anganwadi may be needed but not provisioned for. The data can be captured through the following format:

<b>Access</b>	<b>The number of schools and</b>	<b>Whether all habitations have</b>	<b>If Not,</b>
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	<b>Balwadis</b>	<b>access</b>	<b>1 = easy to reach</b> <b>2=in nearby village within 3 km</b> <b>3= far away, beyond 5 km</b>
Anganwadi/Balwadi			
Primary school			
Middle School			
Upper middle School			
Secondary School			

2. Enrolment –Enrolment of all children especially from marginalised groups within a GP may be a cause for concern. Certain social groups may have had a low representation in the formal schooling and this needs to be analysed from Anganwadi till class XII, It may be found that children from some habitations do not have access to the school, causes of which need to be analysed.
3. Attendance- First generation learner families, children of migrants, children from extremely poor families may enrol but may be unable to attend school regularly. Attendance shows those who could later drop out and get pushed out of the education system. This pattern starts getting manifest in middle and secondary school and therefore, the patterns needs to be mapped from Anganwadi onwards till class XII
4. Children may drop out due to various reasons, including extreme poverty child labour, migration of adults or difficulties because of gender or social norms. These need to be mapped and analysed.

<b>Attendance</b>	<b>Registered</b>	<b>The Quarterly average attendance-Gender wise school year</b>	<b>Drop out in the last three year(Gender wise)</b>
Anganwadi/Balwadi			
Primary school			
Middle School			
Upper middle School			

Secondary School			
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Reasons for low attendance or dropout have to be found out and next steps identified which could include readmission, coaching for equivalence exams and skilling.

5. Availability of teachers and workers starting from Anganwadi till class XII-gaps thereof has to be looked into.

Human Resource Requirements	Number of personnel as provisioned.	Number on the roster- Permanent	Number on the roster - contract staff	Total number of vacancies
Anganwadi/Balwadi				
Primary school				
Middle School				
Upper middle School				
Secondary School				

6. Sufficiency of infrastructure including hostels (if required), availability of water & sanitation, cooking facilities etc.(conforming to space requirements, quality & maintenance) .Gaps have to be clearly determined where the facilities exist , their sufficiency and quality of maintenance have to be analysed.

The provision of mid-day meals has to be discussed separately in relation to quality of the food, level of access.

7. Levels of learning – The quality of teaching and learning in schools are crucial and this needs inputs from local experts from the district. These can assess the learning levels in the subjects and this information can be utilised for village Development Plan for improving the quality the education.
8. Supply of education related material (like uniforms, textbooks, bicycles, bus pass) – Several schemes by the central government and the states relate to provision of such materials. Specific data on presence and implementation of such schemes needs to be mapped as envisaged and as really existing.

### **Situation Analysis would include questions like:**

1. The access to school of different strata of village society. It is possible that children from some habitation are left out from the school system. Are all vulnerable communities able to access?
2. What are the reasons for poor school enrolment, transition between classes and completion?
3. What are the causes for absenteeism among children and dropping out of the children, across habitations, communities and gender?
4. What is the status of the infrastructure and what are the crucial gaps in infrastructure including for sanitation and water. The situation of the support infrastructure like libraries, playground, roofs and functioning toilets etc. can be a challenge. These issues need to be analysed including their state of repair.
5. What are the human resource gaps at different levels in terms of number of vacancies? What are the causes for the gaps? These challenges along with issues like absenteeism may be discussed. The children and youth may be travelling to other GP's etc. for higher education. They may be commuting through public transport and their issues may also be discussed and analysed.
6. What is the status of mid-day meals and what are the issues relating to mid –day meals.
7. What is the gap in the schools in terms of the support services like libraries, computer and internet services etc.,
8. The learning levels may need to be analysed and the question could be –what is the quality of education.
9. Access to higher education, vocational education and professional education also needs to be analysed, even though the facilities may be outside the GP.
10. The presence or absence of vocational training centres is relevant. The problems of tying up with vocational and skilling centres to the youth and the adolescents can be analysed. Similarly, the presence or absence of employers like industries, industrial units and enterprises also needs to be analysed for the employment opportunities for youth.

Note: - While most of the interventions could be only in the case of government and in a few cases, government aided institutions, it is necessary to analyse features and issues related to private institutions, as they have a bearing on the functions of public institutions as well in addition to their role in education.

### **Health**

Health is a very important component of human development. Along the life cycle from birth onwards, health plays an important role as an end in itself as well as a means towards a productive living. The issues to be discussed are:

1. Access to health services for each category of medicine including AYUSH (public - dispensary, PHC, community health centres; Private – as available)- This can be captured through a simple format where access can be analysed:

<b>Types of Health Institution</b>	<b>Number</b>	<b>Whether all habitations have access</b>	<b>If not, distance from each habitations. 1 = easy to reach 2=in nearby village within 3 km 3= far away, beyond 5 km</b>
Sub-centre			
PHC			
Dispensary			
Community Health Centres			
Other Government Hospitals			

Level of use like average number of out- patients, in-patients per day need to be noted.

2. Infrastructure – Buildings, their state of repair, adequacy, Facilities including beds, equipment-gaps vis a vis norms  
Human Resources (all categories) - as per norms, actually sanctioned, vacancies.
3. Supplies and materials (medicines and disposals)
4. Investigation & diagnostic facilities (public & private) - These need to be noted and analysed especially in reference to women and child health.
5. Services provided in public institutions to be listed and deficiencies noted with reasons
6. Details of other kind of institutional deliverables here to be captures and analysed.
7. Description of the traditional health systems- The traditional community based health systems including folk medicinal systems and knowledge systems that need to be encouraged like yoga and ayurveda/siddha/unanican be analysed. Also

superstitious beliefs like sorcery and witchcraft may be described which need to be changed through social development.

8. Disease pattern of the GP – Disease patterns includes communicable, non-communicable diseases- hereditary as well as life style diseases along the life cycle – for infants, children, adolescent, maternal, adult & aged need to be mapped out. Their causes and the levels of treatment, their strengths and deficiencies have to be studied.

9. Through records and oral enquiry an idea of Infant Mortality and Maternal Mortality may be obtained and recorded.

**Note-** The presence of private institutional and facilities, individual and institutional for profit as well as not for profit and their contributions need to be analysed.

**Nutrition Status of the GP** –Nutrition for adolescents, especially girls, pregnant and lactating mothers and nutrition during early childhood is crucial to break the intergenerational grip of poverty. Because of nutritional deficiencies among women and other factors like early marriage, lack of decision making power for women, poverty in the household, the pregnant mother is likely to pass on the nutritional deficit to her children. Breastfeeding and other feeding habits, lack of awareness of diet for the infant and the lactating mother and poverty create a situation, where children grow up with severe nutritional and health deficits. This slows and impedes healthy growth of the body and brain. In the most extreme cases, this causes wasting and stunting of children. Thus, the effects of poverty get passed generation after generation.

Nutrition information is also crucial to understand the extent of hunger and starvation if it exists in the village across the life cycle, but more importantly for young children. Most of these factors can captured from the PRA data. Also data from Anganwadis is very helpful information for analysing the issues relates to wasting and stunting of children. The data which could be analysed are

S.No	Number of starvation deaths in the village in the last year.
	Number of wasted and stunted children in the village.
	Number of grade 1 and grade 2 malnourished children.
	The provision and use of the IFA tablet in the village

Through PRA prevalence of malnutrition and its causes can be analysed. Adequacy of take home food for children in the age group 0-3 years, adolescent nutrition programme and feeding in Anganwadis and mid-day meal of schools have to be assessed including quantity, nutritional quality, acceptance in relation to taste etc.. Special mention may be made of state specific nutrition schemes.

**Functioning of ICDS** - ICDS is a critical scheme covering health as well as early childhood development and education. It needs to be given a special focus during situation analysis. This information can be collected through PRA exercises, and the Anganwadi registers. This can be analysed in following format:

- Infrastructure and its adequacy, state of repair etc.
- Different amenities like water, sanitation, educational and recreational materials and etc...
- Services like Primary health, pre-primary education etc.

## **PDS**

The functioning of Public Distribution System, with special reference to coverage of the poor has also to be analysed in detail. People's perceptions on this are very important.

### **Sanitation:**

Sanitation is a national priority and universal sanitation in the selected GPs is one of the core objectives of SAGY. Situation analysis should cover the following:-

1. Availability of household toilets including those not fully constructed those in bad state of repair and those not in uses.
2. Level of use of household toilets and reasons for not using – personal, social, economic, lack of availability of water, etc.
3. Availability of toilets in public institutions especially anganwadis and schools and public places.
4. Personal hygiene especially of children and adolescents – deficiencies and reasons
5. Types of solid waste generated and the present method of disposal – and different possible ways of disposal as acceptable and affordable to the people.
6. Kinds of liquid waste generated, the existing mode of disposal and alternative possibilities, as affordable and acceptable

The situation analysis should bring out gaps in knowledge and awareness of sanitation among people covering all aspects – including superstition, wrong knowledge, etc.

Situational analysis could bring out issues like:

1. What are the specific health and nutrition issues experienced by each group within the life cycle in the village?
2. The access to health services could be compromised due to distance between habitations and the health services.
3. What gaps exist in health infrastructure in terms of PHC's sub centres, the vacancies of the staff and the supply of medicines?
4. What arrangements exist for emergencies?
5. What is the communicable and non-communicable disease pattern in the village? Are there any epidemics or infections specific to the village?
6. What are the issues experienced by pregnant and lactating mothers as well as infants born in the village? How are their immunization schedules in? What are the difficulties experienced by the pregnant and lactating mothers in terms their and their infants health?
7. How many infants are born with very low birth weight according to the anganwadi register? How many infants in the first year do not gain weight despite exclusive breastfeeding and other dietary interventions for both the lactating mother and the infant?
8. What are the feeding practices for infants and lactating mothers? Are they different for infant boys and infant girls and their mothers respectively? If so, why?
9. What is the quality and provision pattern of the nutritional supplements provided through the Anganwadis and schools
10. The supply of grains in PDS might not be reaching all sections of the population – why?

### **Poverty**

An ideal Gram Panchayat should be free of poverty. A large number of activities to be included in the Village Development Plan would naturally relate to poverty reduction. The analysis of poverty is quite difficult and often it may be contested. In a large number of places, the existing BPL list may not cover all the really poor families.

As per SAGY guidelines, Self Help Groups of the vulnerable are to be set up immediately by the State Rural Livelihood Missions. If they already exist, situation analysis related to poverty should be carried out through them. If they are yet to be formed, situation analysis should still be carried out with the full involvement of the vulnerable groups who can be guided by Community Resource Persons deputed for the purpose by the State Livelihood Missions.

To start with, quantitative data which may throw some light on different aspects of deprivation may be analyzed. This would include:-

1. Land ownership pattern
2. Occupation pattern particularly those of the landless – and wages prevalent for different occupations
3. Access to basic minimum needs like house, toilet, water, power connection, etc.
4. Ownership of economic assets like land, pump sets, livestock, etc.
5. Access to food and clothing
6. Level of indebtedness – to formal and informal sources
7. Access to entitlements
  - MGNREGA
  - Public Distribution System
  - Right to Education
8. Financial inclusion
9. Self Help Groups and their profile
10. Seasonal migration

These data would have to be reinforced by assessment of poverty using participatory techniques like livelihood analysis, wealth ranking, etc.

It may be noted that any analysis of poverty should bring out the differentials related to gender and age and in relation to vulnerable groups particularly Scheduled Castes and Scheduled Tribes.

### **CHAPTER III: SOCIAL DEVELOPMENT**

Development is also a process of social change. Any development without understanding of social dynamics would not yield the desired results. For purpose of planned Social Development the situation analysis should focus on reasons for

- i. Lack of access to entitlements and inequitable development of different sections of society, especially the vulnerable sections, on one hand and
- ii. Social evils that plague the society at large, on the other hand.

Specific groups especially vulnerable groups.

- a. Scheduled Castes
- b. Scheduled Tribes
- c. Disabled Persons
- d. Aged persons
- e. Women
- f. Youth
- g. Transgender
- h. Persons suffering from diseases like HIV, Leprosy, Cancer, terminal illness, TB and those under palliative care. etc.

Social tensions/ evils

These may be identified through discussion and details obtained from PRA for analysis of status of vulnerable groups' to start with Social map should be referred for proper perspective of status of various social groups.

### **1. Social map**

The Social map should be used to understand the access/ distribution of entitlements/ facilities across habitats of different castes/ communities to relate it to gaps, sense of alienation etc that may be underlying cause of social disparities/ tensions etc. The following patterns may be analysed in the maps viz.

- a. Physical distribution of population based on social group like SC/ST
- b. Location of public institutions
- c. Location of civic facilities especially in SC/ST habitations.
- d. Kutchha houses
- e. Households with Disabled persons
- f. Households with Old Age persons
- g. Households headed by woman

### **2. General Data**

These should include:-

- (i) People Below Poverty Line
  - SC- ST- others
- (ii) Profile of aged
  - Male - Female
  - SC – ST - others
  - BPL - non-BPL

- Availability of geriatric care
  - Staying alone /Staying with family
- (iii) Active MGNREGS workers
- Male/Female
  - SC/ST/others
- (iv) Households covered under RSBY
- SC/ST/others
- (v) Households covered under AABY
- SC/ST/others
- (vi) Households covered under any other State Social Security Scheme/Insurance Scheme
- SC/ST/others

### **3. Status of Scheduled Castes**

- (1) List of SC majority habitations – with population details
- (2) Access of SC households to different basic minimum needs and civic amenities and gaps
- (3) Asset ownership of SCs
  - Land
  - Livestock
  - Other assets
- (4) Occupational Status
- (5) Literacy and Education status
  - Male
  - Female
  - Status of hostels for SC students, if any
- (6) The following information may be gathered from PRA and Focus Group Discussions
  - Caste based discrimination and atrocities – and legal action taken

- Prevalence of practices like bonded labour, manual scavenging, etc.
- Data on distress migration (if any)
- Prevalence of social evils
- Access to entitlements
  - MGNREGA
  - PDS
  - Forest Rights Act

#### **4. Status of Scheduled Tribes**

- (1) List of ST majority habitations with population details
- (2) Access of ST households to different basic minimum needs and civic amenities and gaps
- (3) Asset ownership of STs
  - Land
  - Livestock
  - Other assets
- (4) Occupational Status
- (5) Literacy and Education status
  - Male
  - Female
  - Status of exclusive schools/hostels for STs, if any
- (6) Access to non-timber forest produce – produce-wise quantities, income generated, issues in pricing, marketing, value addition potential
- (7) The following information may be gathered from PRA and Focus Group Discussions
  - Discrimination and atrocities – and legal action taken
  - Prevalence of practices like bonded labour
  - Data on distress migration (if any)
  - Prevalence of social evils
- (8) Issues related to land alienation and displacement (if any)

## 5. Status of people with disabilities

- Male – Female – Age-wise
- SC – ST – others
- As per type of disability
- As per percentage of disability
  - below 40%
  - between 40% to 79%
  - 80% and above
- Those certified/not certified
- Those getting financial assistance/those not getting any assistance
- Details of assistive devices needed and provided
  - Hearing aid
  - Artificial limb
  - Walker
  - Wheel chair
  - Any other

## 6. Status of Women

- Details of -
  - Widows
  - Abandoned women
  - Divorced women
  - Separated women
  - Single women above 40 years

} Age-wise
- Access to basic minimum needs and civic amenities
- Ownership of land and other assets
- Livelihoods

## 7. Status of Transgender persons

- Number
- Access to basic minimum needs and civic amenities
- Ownership of assets

- Livelihoods

### **8. Status of Persons suffering from HIV, Leprosy, Cancer, TB, terminally illness**

- Number in each category
- Access to basic minimum needs
- Access to civic amenities
- Livelihoods
- Medical care required

### **9. Issues related to social evils**

This has to be gathered mostly from the PRA exercise and should focus on the following:-

- Crimes against women including –
  - dowry
  - dowry harassment
  - physical atrocities
  - child marriage
  - female foeticide/infanticide
  -
- Child Labour
  - No. of children
  - Profile of such children
  - Establishments/industries employing child labour
  - Legal action due and initiated
  - Reasons for child labour

Other

- Liquor and drug addict
- Untouchability
- Social Tensions

**NOTE:**For each category analysis should reflect problems, gaps in availability of facilities, their causes and give different possible strategies for addressing them. The social development issues identified should be prioritized according to the intensity of the problem as perceived by the people.

## CHATER-IV - GOVERNANCE AND ACCOUNTABILITY

### Governance:-

This would involve analysis of the following:-

1. **Functioning of service delivery institutions like anganwadis, schools, hospitals, the Gram Panchayat, Common Service Centres, banks and other public institutions** – Here issues to be analyzed include the different services to be provided by these institutions, accessibility, timeliness and quality of services, problems faced by people and possible reasons, ways of overcoming them, etc.
2. **Functioning of the Gram Panchayat** – This requires a detailed institutional analysis on the functions it is supposed to perform and those it actually performs, its resource mobilization, functioning of its Committees, etc. with an analysis of reasons for good or bad performance which can be found out by triangulating the perceptions of the elected representatives, local officials and the citizens.
3. **Functioning of different Committees related to management of schools, anganwadis, hospitals, user groups especially to those related to water supply and watershed management, Vigilance and Monitoring Committees under MGNREGS, etc.** – They should be evaluated against their functions, level of participation and actual say in their area of responsibility. Reasons for not being able to exercise their powers and functions have to be analyzed.
4. **Gram Sabha** – As part of analysis of governance, the functioning of Gram Sabha has to be explained in detail, with reference to powers and functions, frequency of meetings, level of participation, decision making, follow up of decisions, etc. Suggestions on strengthening of Gram Sabha need to emerge from all sections of society, as bringing in a vibrant Gram Sabha is a special objective of SAGY.

### Accountability:-

The accountability systems which need to be analyzed include:-

1. Proactive disclosure of information on different development schemes and expenditures, to the public – how it is done or not done and why.
2. The grievance redressal system vis-à-vis different public institutions with special reference to Public Distribution System, MGNREGS, functioning of

schools and hospitals, distribution of social security pensions, functioning of the police stations and the revenue authorities. This analysis has to clearly bring out the process and procedures or lack of them and identify reasons for deficiencies.

3. Similarly, Social Audit system has to be thoroughly examined and its shortcomings highlighted with strategies for making it effective.

Public perception of different institutions can be captured through appropriate PRA techniques like Venn diagram, Chapati diagram, etc.

## **CHAPTER-V ECONOMIC DEVELOPMENT**

Economic Development is the most important and but also the most difficult area in local planning. To put it simply, local economic development means increase in productivity and production in all sectors, increase in jobs and increase in local incomes. Situation analysis for economic development would naturally focus on economic resources

When one says development, often it's confused for economic development and more specifically economic growth. That of course is not true. Economic Development alone can't be assumed to be the same as development of a village and economic growth alone doesn't even qualify as economic development. However economic development is definitely at the centre of holistic development of a village towards becoming Adarsh Gram. This is especially true for a country like ours, where poverty is so intense and widespread.

Economic Development can be based on the available economic resources and income and employment opportunities away from the village. For the purpose of the analysis of economic development, economic resources can be assumed to comprise of natural resources, economic infrastructure and services, and human resources including skills and indigenous technology etc. While the development of the village economy can be based on such economic resources, people going out of the village to access income and employment opportunities has long been a major source of economic development of villages. For centuries, people have accessed income, employment opportunities away from their village. But in recent decades, the importance of migration - especially when it's seasonal or when only a few members of the household go out for work, with their households effectively continuing to be residents of the village - has increased many folds. Thus any analysis of economic development of a Gram Panchayat and the challenges and potential around the same needs to focus on both Economic Resources available to the Gram Panchayat, as well

as income and employment opportunities available outside the Gram Panchayat. Let's start with an analysis of Economic Resources.

## Major Points of the Situation Analysis of Economic Resources

Situation Analysis of Economic Resources can focus on the current status of various economic resources available to the Adarsh Gram. The resources may be found within the boundaries of the village or may be accessible to the people of the village even if they are outside the physical boundaries of the village. Following is a classification of economic resources available in a village. The situation will of course vary from place to place and this should only be used as a guide to coming up with a locally relevant classification.

Once the available data around the economic resources (as identified for the village) is collected and laid out, the status of each resource as well as the overall

situation of economic resources needs to be analysed. Here are a few key parameters for the situation analysis, which can then lead to the preparation for the development plan:

1. Production:
  - a. Is the production of a particular item optimal?
  - b. Can the production of particular items be increased?
  - c. Can new products be produced? Etc.
2. Storage:
  - a. How do people store their produce at present?
  - b. Can there be improvement in the storage process?
  - c. Can there be improvement in Storage Infrastructure?
3. Value Addition
  - a. Are there opportunities for producers to do value addition to their produce before selling in the market?

### Some key Economic Resources

- i. Land Use
  1. Agricultural Land (Cultivated Land – wet & dry land, irrigated and un-irrigated land)
  2. Cultivable Fallow
  3. Uncultivable Land
  4. Cropping Pattern (Food & Non-Food)
  5. Orchards & Plantations
  6. Pasture – common and private
- ii. Livestock Profile
- iii. Other Natural Resources
  1. Water Bodies including Irrigation Structures
  2. Forests – including and those on revenue land
  3. Mines (Minor & Major)
- iv. Other Economic Resources
  1. Manufacturing Units – including small scale and cottage industries
  2. Commercial Units
  3. Markets
  4. Storage & Warehouse facilities
  5. Banks & financial institutions

- b. What kind of opportunities are there? (E.g. Cleaning, Drying, Grading, processing, etc.)
4. Marketing
    - a. Do the villagers get the best price for their produce?
    - b. How can they enhance the prices they get for their produce?
    - c. Are there opportunities to tap higher prices for produce by accessing better markets?
  5. Sustainability & Climate Friendly Production
    - a. Does the production activity in the village happen in a manner that is ecologically sustainable?
    - b. Is the production over dependent on external inputs? Are any of these inputs ecologically harmful? Are there any local / organic alternatives for such inputs? In case it is so, are there possibilities of reducing reliance on external inputs?
    - c. Are there production activities that are highly vulnerable to disasters and climate change? Are there any possibilities of enhancing climate resilience of the production systems in the village?
  6. Equity
    - a. Does the production system in the village provide opportunities to the poor and the marginalised to earn a decent living?
    - b. How can the incomes of the poor and the marginalised be enhanced?

### **Mapping Economic Resources and their Status**

The Economic Resources available to a village comprise of natural resources, livestock, economic infrastructure & services, and the knowledge and skills of the people. An assessment of the current situation of these resources is necessary for planning economic development programme for the village. The situation analysis deals with both quantitative parameters (e.g. number of cattle) as well as qualitative parameters (e.g. average milk yield or quality of bullocks). It deals with current situation in terms of a snapshot (e.g. total forest area), as well as trends (e.g. decrease/increase in forest area over the years). Managing quantities, enhancing quality, strengthening positive trends, addressing and reducing negative trends can be key approaches to economic development. It is important to take note of the fact that all the economic resources of a village are not necessarily within geographical boundaries of the village. At the same time it has to be recognised that some of these economic resources are under the control of the village while to others, the village may only have access. For example a village may have control over a patch of forest that is not within its boundaries but has been assigned to it under Joint Forest Management. On the other hand, a village may have access to a Mandi for selling its produce but have partial or no control over its running.

## Land

Land is one of the most important economic resources of a village. Estimation of land resources available in a village is therefore critical to any development planning process. Land available to a village can be categorized on different parameters. Some of these parameters are general parameters that are used across the country. But there can also be parameters that are used locally. For instance in hilly areas people classify land on the basis of height and undulations while in coastal areas people classify land in terms of salinity. In some areas land is classified on the basis of how many crops are raised per year – e.g. EkFasali, Do Fasali. The classification of land to be used for assessing and the land resources available in a village should be carried out after having a discussion with the local people and frontline staff of the revenue department. A few common parameters for

Classifying and estimating land resources are provided below:

1. Ownership: Private Land, Village Land, Government Land, Other Land
  - a. Private Land may be held by one household or jointly by many households
  - b. Village Land may be owned by the PRI or by different institutions such as religious bodies
  - c. Government Land may be under the control of the Revenue Department or the Forest Department
  - d. There could be other forms of land ownership, for example land held notionally by a tribal chief while being actually allocated for cultivation to different tribal households.

*Some key points here could be to assess if there is encroachment of government land or other common land. There could be an assessment of illegal alienation of ST / SC Land? These are issues that the village may want to address. There could be an assessment of land availed under FRA (Scheduled Tribes and Other traditional Forest Dwellers (Recognition of Forest Rights) Act. Such land may be in the greatest need for land development and irrigation development.*

2. Physical Characteristics: Land may be classified as

- a. Upland, Medium Land, Low Land
- b. Clay, Loamy, Sandy, Rocky
- c. Irrigated Land and Rain-fed Land: In some places people might further classify on the basis of source of irrigation— e.g. Canal, Check dam, Tank, Bore Wells, Open Wells etc.

<b><i>The way Land Data from a village might look</i></b>	
1. Agro-climatic zone:	6. Non-arable land : in Hectares
2. Total Geographical area: in Hectares	7. Village Forest : in Hectares
3. Arable Land : in Hectares	8. Pasture land : in Hectares
4. Upland : in Hectares	9. Cultivable waste land : in Hectares
5. Medium land : in Hectares	10. Un-cultivable waste land: : in Hectares
Low land : in Hectares	

d. Other local classifications

*Some key points here could be to assess the status of erosion and status of water availability, access to irrigation and possibilities of enhancement in irrigated area through various means. In case soil testing has already been done, assessment of soil quality and nutrition needs will help in planning soil treatment and manure / fertiliser usage*

3. Status of Crops and Plantations: Land may also be classified on the basis of use in terms of what is grown on it and the seasonality/ frequency of such use. Following could be some parameters in this regard:
- a. Cultivable Land
    - i. Currently being Cultivated
    - ii. Cultivable Fallow
  - b. Uncultivable Land
  - c. Orchards & Plantations
  - d. Pasture
  - e. Village Forests

*Some key points here could be: To assess the number of crops per year in land under cultivation, and possibilities of enhancing the same; assess the optimality of the fallow period; possibility of making uncultivated land more productive; development of productivity of pasture land and forests. Pastures are often encroached and removing encroachment can be a key measure. Orchards and Plantations can often allow significant production from intercropping with seasonal crops or other ground vegetation and climbers. The status of degradation of the village forest can be assessed and possibilities of preventing degradation and assisting regeneration can be discussed.*

### **Water Bodies**

Water Bodies are important economic resources not only for the economic activities that can be carried out in them but also the role they play in supporting and strengthening the productivity of other economic resources – especially land. Information regarding water bodies can be assessed on various parameters. The size of the water body is an important parameter for tanks, check dams and other such surface storage structures. The area that can be irrigated by a particular water body is another important parameter. For surface storage structures, and often for wells and even bore wells, another parameter that is often used is availability of water through the year – some water bodies have water for a few months during and after the monsoons while some have water throughout the year. Some examples of water bodies available in a village are as follows:

1. Tanks and Ponds
2. Other traditional water harvesting structures (e.g. Naiad, Tankan, Bawdiest, Ajar, Pine.)

3. Dug Wells / Open Wells
4. Check Dams
5. Streams / Rivers
6. Canals
7. Bore Wells

<b>Possible tabulation of Water Resources Data</b>					
SL. No.	Name	Type of Resource Ownership	Area(Ac)	Water Status in Month of Water Availability	Present Use e.g. Irrigation / Animals / Bathing / Drinking

*Some key points here could be: To assess the status of siltation and the status of catchment of the water harvesting structures and possibilities of revitalisation; the depth of water table and trend in decline (if any) of water table, reasons for the same, and possible alternatives; quality of water in terms of pollution impacting agriculture and livestock, reasons for the same and possible actions to reduce pollution and so on.*

### **Forests**

Forests are sources of direct and indirect economic benefit. Apart from forests that are within the boundaries of the village, the people of the village have varying degrees of access and control over forests in the neighbourhood of the village. Therefore, while assessing the forest resources available to a village, different types of such access and control need to be identified. While assessing forest resources, quantitative aspects such as area of the forest, distance from the village, whether inside or outside village boundary, need to be identified. The nature of the forest in terms of types of trees / plants, types of non-timber forest produce, and periodic tree harvests, if any, need to be listed. The forest products need to be quantified as well.

### **Suggested Tabulation for Forest Areas**

Name Forest Patch	Area (in Acres)	Ownership <sup>1</sup>	Major Trees / Plants found	Important NTFPs found	Periodic Tree Harvest (Yes/No)

### **Forests and Plantations under Joint Forest Management / Social Forestry**

While the village might have traditional user rights over forests in its neighbourhood, there are special cases where the village has exclusive and clearly defined rights on forests and plantations. Forest patches under Joint Forest Management (JFM) or Community Forest Management (CFM)<sup>2</sup> and plantations developed under social

<sup>1</sup> Such as Community / Revenue / Forest Dept. / JFM / Social Forestry Block Plantations / Other

<sup>2</sup> In many places villagers might be managing patches of forest on their own without any specific role of the forest department. Such systems are generally called community forest management. While the villagers may

forestry are resources to which the village / Gram Panchayat may have exclusive rights. Such areas can be listed separately and further details can be provided for the same. Such details can include, apart from area and composition in terms of trees and plants, the number years for which the JFM has been practiced or the age of Social Forestry plantations, and most importantly the management system. In this the details of membership of committees responsible for JFM or Social Forestry and its office bearers should be mentioned. Such committees can facilitate the planning process regarding further work on JFM / CFM/ Social Forestry.

### **Forest Produce – especially Non Timber Forest Produce (NTFPs)**

Forests are important in themselves - as sources of environmental and ecological services they provide. But they are also important for providing of day to day needs and as a source for year round or seasonal employment and income. Non Timber forest produce – i.e. forest produce that one can get without cutting down or otherwise destroying the trees- provide sustainable livelihoods, especially for the poor and the poor among them.

The various NTFPs collected by people for own use as well as for marketing can be listed along with information on total quantity, income and total number of households dependent on the same.

### **Suggested Tabulation for Forest Produce**

Name of Forest Produce	Average Annual Production	Number of households depending on the NTFP	Quantity Used	Quantity Sold	Average Price

The most important NTFPs can be described with more detail regarding status and trends of production, value addition, marketing, legal regimes (for instance restrictions on collection, processing or marketing imposed by government laws and rules), and social and gender attributes of households / individuals dependent on the produce.

Sericulture is an important livelihood that is practiced both on public forests and plantations as well as on private plantations. As sericulture creates income and employment without damaging the trees, the potential for sericulture from existing forests and plantations, as well possibilities of new plantations can be assessed.

*Some key points here could be: To assess the status and trend of degradation of forests and possibilities of regeneration; status of rights of the villagers on the forests and their share in non-timber forest produce as well as potential harvest of timber. Status of Joint Forest Management and possibilities of initiating / strengthening the same can be assessed.*

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not have defined legal rights over such forests, they might be enjoying certain rights de facto. Such practices should also be documented.

The condition of the forest in terms of degradation status and the trend of degradation or regeneration can be assessed. This would provide directions for planning development.

### **Grazing Lands**

Common Grazing Lands are important for livestock based activities. This is especially true for the poor and marginalised communities who own little or no land of their own and own small ruminants that are more dependent on grazing or stall-feeding on leaves and grass than on concentrated feeds that are used for cattle with high milk yield levels.

Analysis of current availability of grazing lands and lands from where grass can be cut for stall feeding is therefore important as part of the situation analysis. Trend of grazing land can be analysed on different parameters such as change in grass production, erosion and - perhaps the most importantly – encroachment for the purpose of private agriculture. This can provide information on the possibilities of improving production of grass and other grazing material, as well as the need for removing encroachments.

### **Status of Livestock and Fishing**

Livestock provides direct incomes from sale of produce as well as through providing inputs for agriculture such as draught animals, manure, and pesticides. The number and productivity of livestock needs to be assessed for planning interventions to enhance livestock based incomes as well as to enhance the contribution of livestock to economic and other aspects of the village (for example nutrition security).

<b>Possible Format for Livestock Listing</b>		
<b>Livestock</b>	<b>No of HH involved</b>	<b>Numbers of Livestock</b>
Cattle		
Buffalo		
Sheep		
Goat		
Poultry		

*Some key points here could be: To assess the number and breed of livestock. The productivity of the livestock and its vulnerability to diseases are major issues that need to be discussed, status of veterinary care, livestock insurance need to be assessed. Marketing of produce, especially cooperative marketing of perishable produce such as milk and eggs and the potential for the same needs to be assessed. Status of availability and quality of livestock shelters is a key area that needs to be discussed and possibilities of ensuring better availability and quality of shelters through programmes such as MGNREGS can be discussed.*

Fishing and Pisciculture are key livelihood activities. The status of pisciculture can be assessed in terms of the use of different available water bodies for growing fish. For this the tanks, ponds, check dams etc. can be listed and their current status in terms of

use for pisciculture can be analysed. Apart from culture fishing, villages near rivers, lakes, or the sea also have livelihoods based on capture fishing. In such case, the equipment available for fishing (such as boats and nets) can be assessed. At the same time the trend of availability of fish – especially from the perspective of overfishing - needs to be assessed. The following are three aspects that can be assessed:

1. Households dependent on Fishing and different aspects such as ownership of equipment etc.
2. Water Bodies available for Pisciculture and different aspects such as area, seasonality of water availability, current levels of production, and ownership and management pattern (e.g. CPR/Leased) etc.
3. Water bodies available for capture fishing, availability of equipment, trend in fish catch etc.

*Some key points here could be: To assess the water availability and possibility of increasing the number of months of water availability and possibility of converting some water bodies to year round water availability for pisciculture; current and traditional rights of local fishing communities over water resources can be discussed; marketing of fish and availability of fishing equipment can be discussed.*

### **Status of Cropping and Horticulture**

Cropping pattern of the village needs to be assessed in terms of both listing of crops as well as seasonality of cropping. Crops can be classified as food crops and cash crops. Each crop can be further assessed in terms of the variety of the crop, number of farmers engaged, area cultivated and total and average annual production. Information on how much of the output is used locally in the village and how much is sold outside the village can also be gathered. Status of Food Grains, Pulses, Oil Seeds, Vegetables and Cash Crops can be separately listed and analysed. Horticulture and floriculture can also be separately listed and analysed.

#### **Crops**

Name of the crop	Name of the variety	No of farmers involved	Area cultivated		Average annual production	Local Use	Marketed outside the village	Season
			Irrigated	Un-irrigated				

#### **Seasonality**

Crop Season		Months (From–To)	Area Cultivated		Total Production	
			Irrigated	Unirrigated	Qty	Value
Kharif	Food Crops					
	Vegetables & Flowers					
	Other Cash Crops					
Rabi	Food Crops					

	Vegetables & Flowers					
	Other Cash Crops					
Other	Food Crops					
	Vegetables & Flowers					
	Other Cash Crops					

*Some key points here could be: To assess the yield levels and possibilities of yield enhancement; to assess the possibilities of increasing the cropping intensity; to assess if the food crops to cash crops ratio is optimal and whether there can be any improvements in this regard; The status of and potential for intercropping in horticultural crops can be assessed*

### **Agricultural Inputs**

Availability of inputs is a critical part of agriculture. Inputs can be broadly classified in different categories – Seeds; Fertilisers and Pesticides; Tillage and other Equipment; Human resource with required skills are some common categories. The nature, quantity, price and availability of inputs determine productivity, profitability and sustainability of agriculture.

While assessing the situation of availability of Seeds, Fertilisers and Pesticides, some of the following parameters may be useful.

1. Indigenous / Organic Inputs produced and available inside the village
2. Indigenous / Organic Inputs produced and available in the neighbouring areas
3. Chemical / Commercial Inputs available in the local / nearby market
4. Chemical / Commercial Inputs available from the government

While assessing the availability of Tillage and other Equipment, the following parameters may be useful

1. Number of Draught Animals (bullock / buffalo / camel)
2. Number of Power Tillers in the Village
3. Number of Tractors in the Village
4. Number of Threshers in the village (manual / powered)
5. Number of Harvesters in the village
6. Sources of hiring equipment from outside the village

While assessing availability of human resource, the following parameters may be useful:

1. Peak demand for farm labour – number and seasons
2. Availability of farm labour in the village
3. Hiring of farm labour from outside the village
4. Availability of skills especially for new agricultural methods and equipment

*Some key points here could be: To assess the yield levels and possibilities of yield enhancement; to assess the possibilities of increasing the cropping intensity; to assess if the food crops to cash crops ratio is optimal and whether there can be any improvements in this regard; The status of and potential for intercropping in horticultural crops can be assessed; The status of mechanisation of agriculture and the impact on populations of local draught animals and on compacting of soil can be assessed; equity and efficiency of mechanisation can be assessed as well (e.g. power tillers typically bring equity in ownership while large tractors can often bring some sort of efficiency, while CHCs –Custom Hiring Centres – can improve access to mechanisation for small and marginal farmers without requiring one time investments in purchase of equipment).*

### **Status of Livestock based Production**

Livestock based production can be assessed in a similar manner to assessment of crops. Output of Milk, Eggs, Meat and other produce directly consumed by people and sold in the market needs to be listed along with aspects such as local consumption, sale, prices etc. Produce from Livestock that are used as inputs for other economic activities, such as cow dung as source of manure and biogas, draught power used for agricultural operations and for transport need to be listed and analysed. The following table provides a rough idea of how livestock produce can be listed.

Name of Produce	Average Annual Production	Quantity Used locally	Quantity Sold	Average Price

Different livestock based produce have different degrees of perishability and transportability. Milk is perhaps the most perishable of livestock based produce, followed by eggs. The need to sell quickly typically puts the producer in to a disadvantage and thus proper marketing facilities are extremely important. Existence or lack of cooperative marketing systems for milk, is therefore, a key aspect that needs to be analysed.

*Some key points here could be: What is the average milk yield of cows / buffaloes / Goats? What is the average egg yield of poultry? Can the productivity of the livestock be improved? Can this be / should this be done through bringing in external breeds? Can this be done through revitalisation of local breeds? Does the livestock produce of the village have any quality attributes that can be used for getting better prices (e.g. milk from indigenous breeds can often fetch a premium and so can eggs from indigenous poultry)? Does the village have a milk producer's cooperative? If so, does it need to be strengthened further and if so, how? In case it does not have a milk cooperative, are there possibilities of having one? Are livestock kept in hygienic shelters? Are there possibilities of improving availability and quality of livestock shelters? Can MGNREGS be used to building / improving livestock shelters.*

## **Processing**

Processing of produce from agriculture, horticulture, forest produce, livestock produce etc. help villages to go up the value chain and enhance income. While assessing situation of processing, indigenous processing technologies, household level processing, and modern organised processing need to be listed. The skills of the people in processing of produce also need to be assessed for planning skill development. Processing also requires facilities such as processing sheds, equipment as well as market linkages.

For assessing the potential benefits of processing, the prices available for products at different stages of processing can be assessed.

*Some key points here could be: What are the produce from the village that are sold for further processing? What processing can be done before sending it out of the village? Are there any produce of the village which are sold in raw form and the villagers buy it afterwards in processed forms? To what extent can such items be processed in the village itself? e.g. If a village is selling raw tamarind in shells, it might move up to selling de-shelled tamarind, further to de-seeded tamarind, and further to raw tamarind paste, and further to tamarind based pickles. However processing should be undertaken only if it provides greater income? For instance in many villages, selling liquid milk through milk cooperatives may provide higher income than preparing paneer and selling through local traders.*

## **Minor Minerals**

As per Panchayatiraj laws, Gram Panchayats in many areas (especially those falling under the Panchayatiraj Extension to scheduled areas Act - PESA) enjoy different degrees of ownership rights over minor minerals. Assessment of current usage, income, employment and marketing patterns can provide inputs for the planning process. For this different minor minerals available within the Gram Panchayat need to be listed along with information on the above parameters. Minor minerals can be an important source of revenue for the Gram Panchayat and the lease practices can be analysed from the perspective of optimising revenue and employment as well as for addressing sustainability and environmental concerns.

## **Rural Manufacturing**

Apart from primary production and processing, rural economies also depend significantly on cottage, small scale as well as other manufacturing activities. Assessment of different Artisanal Livelihoods such as weaving, handicrafts, pottery, black smiths, etc. can be done along with the current production, marketing and incomes.

Small Scale and larger scale manufacturing units can be listed and assessed in terms of employment, production, marketing, profitability and backward as well as forward linkages with other aspects of the village economy. The existence and status of manufacturing by women's groups is a critical area that needs to be assessed.

Some key points here could be: The status of traditional manufacturing? (**Strengthen on this**) What are the key issues relating to market and inputs? Can marketing and input supply be improved? How? Are there any special attributes of traditional / local manufacturing that can be harnessed for better marketing and better prices? What is the need and scope for skill up gradation and product innovation? What is the resource rights required for traditional artisans (e.g. earth for potters, fuel for potters and smiths, etc.)? Are there adequate sheds for the manufacturing? What are the requirements as regards new or upgraded sheds? Do certain people involved in traditional manufacturing need to move on to new activities due to lack of market for their produce? What kind of support do they need for such transition? Are people engaged in small scale/cottage enterprise organised for marketing and/or access to inputs? What possibilities exist inside the Gram Panchayat or in the neighbouring regions for such organising and linking?

### **Tertiary Sector**

Over the decades since independence village economies have grown, there is growth in the range of goods and services consumed and produced in the village, and strengthening and widening of its connections with the larger economy. This has created new income and employment opportunities in trade, transport, communications and various services. In most villages today, there are large numbers of people engaged in such activities. Planning for the development of the Gram Panchayat, therefore, requires an analysis of the situation of such activities and the income and employment of the people engaged in the same. A few points are listed here as indicative of the different such employment:

1. Small Shops selling groceries, stationeries, hardware, and inputs for agricultural and livestock related activities
2. Communication Centres (e.g. photocopying, printing, internet café, etc.)
3. Provision of equipment and services for marriage and other similar events
4. Tea Shops and Restaurants
5. Saloons and Beauty Parlours
6. Tailors
7. Laundry
8. Black smiths and other such services
9. Medicine Shops - must seek to identify and address the issue of legality of medicine shops
10. Liquor shops - must seek to identify and address the issue of legality of liquor shops as well as whether the Gram Sabha wants them to continue over the long run.
11. Passenger vehicles for individual hire – e.g. Rickshaw, Auto Rickshaw, and Taxi etc.
12. Passenger vehicles plying on regular routes – e.g. Buses, Mini Buses etc.

While listing such occupations and the persons engaged in the same, there can be analysis of their current status, long terms trends (e.g. are tailors getting out of work on account of increasing purchase of ready to wear clothes?). This would help in

improving existing occupations, dealing with threats to the occupations, or planning alternative livelihood for those whose occupations are difficult to protect in the face of the changing economy. While assessing the current status of such business, different aspects such as availability of infrastructure, availability of inputs, working capital, credit facilities etc. can be covered. A hypothetical example might further elaborate this.

With increasing demand for ready to wear clothes, tailors in many villages are facing lack of demand and closure. At the same time, women in many villages find tailoring training an important skill building activity. How can we make the best of the situation? In many villages the government provides ready to wear uniforms for school children. Can the Gram Panchayat and the Administration, work towards connecting the local tailors –especially women who have undergone tailoring training – to the provision of uniforms for the children? In villages where there are traditional weavers, is it possible to work with the administration to ensure that the uniform norms include locally weaved clothes– e.g. Khadi.

### **Tourism**

The growth of tourism and tourism related occupations is another area that provides opportunities that the Gram Panchayat can use to provide its people better employment and incomes. Some Gram Panchayats may already be important tourism locations or close to such locations– e.g. religious tourism on account of a local temple / church / mosque etc.; sea beaches; hill stations; sanctuaries & national parks; historical places etc. The situation analysis can assess the current status of occupations based on such tourism. Eco Tourism, Rural Tourism and Ethnic Tourism etc. are new tourism opportunities that are developing fast and the Gram Panchayat can also assess its own potential to develop such tourism.

While assessing the situation of tourism, talking to the tourists can provide important insights in to the possibilities of addressing gaps and enhancing value. Can rural youth be trained (or better trained) to work as guides or to become better guides? Can the Gram Panchayat improve the security of the tourists to attract more tourists? Can improvement in sanitation and sanitary facilities improve tourism?

It is important while discussing tourism and related occupations to also address the potential hazards of tourism – e.g. alcohol and drugs related problems, safety and dignity of women. Of course it has to be kept in mind that tourism as such is one of the oldest industries and if proper precautions are taken can provide a strong boost to the local economy.

### **Traditional Performing Arts (Legacy)**

Traditional Art forms provided employment to people over generations. Ironically the households practicing traditional performing arts are often from among the poorest households. Enumeration of such people and identifying options can be an important part of the situation analysis process. Such performing Arts have often been used by the administration for IEC activities. Also it is probably possible for them to graduate

from casual employment to more organised service providers. For example, traditional musicians could form groups to provide music during marriages and other events. Traditional performing Arts could also be used to enhance the value of tourism.

## **Storage, Warehousing and Transport**

Storage and Warehousing facilities are key to reducing post harvest losses and enhancing price realisation through avoiding sale during the peak harvest period when the prices are usually low. While assessing these aspects, household storage as well as public and commercial storage facilities needs to be listed and analysed. Transport facilities help producers to take their products to markets paying better prices. While analysing transport, transport by own vehicles such as bicycles, two wheelers, bullock cart etc. which play a significant role also need to be listed and analysed in addition to transport facilities available for hire.

1. Household level Storage Facilities and Practices
2. Public Storage Facilities available for hire
3. Commercial storage facilities available for hire
4. Transport Facilities from the village

For assessing the potential benefits of storage and transport, the prices available in different seasons and different markets can be assessed.

*Some key points here could be: Does lack of storage facilities force producers to sell their produce immediately after harvest? Does this lead to lower prices than they might receive if they could wait for some time? Can there be better storage facilities at the household level? Availability and quality of storage containers. Treatment before storage to enhance storability – traditional methods and new methods. Are there any public storage facilities available for hire? What about Cold Storage? What are the key issues relating to cold storage facilities – e.g. storage fees, distance etc. What are the means of transport used by the villagers to take their produce to the market and to carry their purchases from the market? What are the private vehicles used by people for transportation (including bicycles and animal drawn vehicles)? What vehicles are available for hire? Are hiring rates reasonable? What can be done about transportation?*

## **Market Facilities**

Local Market Facilities and good connectivity & access to larger markets contribute to higher prices for things produced by the villagers and lower prices and better quality for inputs and items of consumption purchased by the villagers. A listing of the markets along with distance from the village, nature of road connectivity and market access (can people from the village buy and sell directly in the market?) can be prepared. A map of market linkages can be a useful way of depicting current situation as well as planning development.

*Some key points here could be: How do the producers sell their produce? Do they sell at the doorstep to local traders? Can they get higher prices by taking their produce to the local market? Can they get even more by taking it to a further market? What are the reasons that they are not able to access a more remunerative market? Have they entered into forward selling contracts or bound to certain buyers on account of being*

*indebted to them? If so, how can they come out of such restrictive and unremunerative selling agreements? Can there be formation of sellers' groups to access more remunerative markets? Can SHG's play that role? What are the requirements of revolving fund and storage facilities for such producer's groups? What is the status of Minimum Support Price based operations? Is there a need to enhance the access of small producers to MSP based procurement? What are the factors hindering access to MSP based procurement? How can these be addressed?*

### **Banks & financial institutions**

Banks and Financial Institutions are important in terms of providing sustained credit facilities as well enabling better transactions in sale and purchase. Local institutions such as credit cooperatives, Self Help Groups play a key role in enhancing the access of the poor to banking and hence need to be assessed in terms of number, membership, size of revolving fund, access to bank linkages etc.

Credit flow in the villages needs to be analysed including from informal sources like money-lenders and from sources like micro finance institutions. The credit requirements of the village also have to be found out and strategies developed for improving access to formal credit.

*Some key points here could be: Do all the households in the Gram Panchayat have bank accounts? If not, what percentages of the households do? Could the remaining households benefit from having a bank account? Do women have independent bank accounts or mostly have joint accounts with men in the house? Do the women think that they would benefit if they had independent bank accounts? Is there a branch of any commercial bank in the Gram Panchayat? Is there a bank branch so close to the Gram Panchayat that people do not have an expressed need for one in the Gram Panchayat? Does the Gram Panchayat have a Farmers' Credit Cooperative or any similar institution? Are all farmers member of credit cooperatives? About what proportion of farmers are able to access crop loans and other agriculture related loans? What are the reasons if some farmers are not able to get loans from credit cooperatives? Do all farmers and other small producers have access to bank credit? If not, what are the reasons for their not having access? Are farmers and small producers dependent on moneylenders and other informal sources of credit for production credit? At what rate of interest per months/year? Are households in the village dependent on informal sources of credit for consumption loans? At what rate of interest per months/year? Does the village have functional SHGs? How many of them have been able to leverage bank credit? How many of them are able to meet the consumption loan needs of member households? How many of them are able to meet the production credit needs of the member households?*

### **Other Opportunities for Income and Employment**

Apart from economic resources available to a Gram Panchayat, the people living in the GP may also have identified and utilised opportunities for income and employment outside the GP. Many such people may be in salaried employment in different institutions including the government and enterprises, while many others may be in wage employment outside the Gram Panchayat. A development plan for the Gram Panchayat can also include strategies and activities that improve the income earned by people who go out to work. Therefore, it's important that there is a thorough analysis of this aspect of the village economy.

### **Salaried Employment**

Salaried employment is often looked up on in villages as one of the best employments. Of course, this is not necessarily true – opportunities for salaried employment are actually produced by people who chose to create businesses rather than take up salaried employment. Yet large numbers of people in the Gram Panchayat may still prefer salaried jobs over opportunities for self-employment. Thus, there is a need for doing a situation analysis of the Gram Panchayat in terms of enumerating the number of people who are in salaried jobs and those who are seeking such employment.

Such enumeration can incorporate classification in terms of sector (e.g. government, private), job security (permanent / temporary), qualifications and skills, as well as income levels. An indicative approach to tabulation is provided below.

Name	Edu. Qualification	Technical Skill	Current Employment Status	Desired Enhancement in Employment status	Options
A	Class 10 <sup>th</sup>	No Skills	Casual Wage Labour	Mechanic	ITI Training & Placement
B	Class 12 <sup>th</sup>	Electrician	Salesman	As Electrician in an Industry	Placement Support

### **Skilled Wage Employment**

There are several people from the GP who may already be working in skilled and unskilled workers outside the village and many others who may want such employment. Listing of such people along with their current places and sectors of employment can provide an understanding of the current situation in this regard. Are there opportunities for skill development that can help such people enhance their incomes and employability? Are there possibilities of forming groups of such people so that they make a successful transition from being workers to being service providers? For example construction workers from a village may improve their income and employment if they formed a group and took construction work on contract basis – there are successful models of this from many places.

Sl	Name of person	Age	Sex (M/F)	Place of Migration	Duration (Seasonal/Year round)	Sector/s of Work	Possibilities of Skill Up-gradation	Possibility of Group Formation

## Chapter VI: Ecology & Environment Development

### Major Points of the Situation Analysis of Ecology & Environment

The Ecology and the Environment of the village are important both in terms of direct impact in terms of providing income and items of consumption for the people as well as indirect impact in terms of the way ecology and environment influence other spheres of life. The economic aspects of Ecology and Environment are being covered under the situation Analysis of Economic Resources. So the situation analysis for

Status, Issues and Challenges of Ecology & Environment

Natural Resources

i. Degradation

ii. Depletion

Bio-diversity

Ecology & Environment will focus more on indirect economic impacts as well as other impacts in terms of quality of life.

### Mapping of Natural Resources

Cataloguing and mapping different aspects of the environment and the ecology is the first step towards the situation analysis.

This can be done through a process of geographical mapping and focus group discussion during the PRA process, as well as through discussing with the government functionaries dealing with different aspects of the ecology and the environment. Some of the relevant officials could be from:

1. The forest department
2. The Wildlife Department
3. The Regional Office of the Pollution Control Board
4. Irrigation & Flood Control
5. Agriculture
6. Watershed
7. Horticulture
8. Fisheries

Of course this is just an indicative list and the Charge officer and her team can finalise the list as per their local realities.

### Issues of Environment

The impact of the environment on the quality of life and the livelihoods of

Ecology and Environment are aspects on which there are several layers of understanding. Ecology and Environment can be looked at from the perspective of local priorities and they can also be looked at from a perspective of larger regional, national and global priorities. For instance, having a forest or a lake in the neighbourhood of a village may be looked upon by the villagers as something that is beneficial to them. But the presence of wild animals that destroy crops may be looked upon as not being beneficial while the regional and national priorities may be to protect and promote the populations of such wild animals. Where such differences between local and larger priorities exist, it is important to document and present the perspectives of the local as well the national to both the Gram Sabha as well as the functionaries in charge of the national priorities. This can be a starting point for an approach that promotes the national priorities without sacrificing the local priorities. An example of such difference (man-animal conflict) is the impact of elephants on agriculture and habitations in forest neighbouring communities. It is important to have elephants. But it's also important that villagers get a sense of security and their crops and habitations are protected.

people need to be assessed and documented. The following are a set of indicative points for the same.

1. What are the issues related to degradation of the environment?
  - a. Water Pollution
  - b. Air Pollution
  - c. Soil Contamination
  - d. Noise Pollution

While assessing the situation of pollution, it is important that the causes for the pollution are also listed out. While listing out the causes of pollution, the origins also will need to be listed. The origin of the pollution may or may not be from inside the boundaries of the village. In some cases the pollution may originate in the village but that may not be the only source of pollution. Similarly the village may or may not be involved in the activity that causes the pollution. Based on this the ability of the village to tackle the issue of pollution will vary. A few questions that might help in planning the response to pollution could be:

1. Are the livelihoods / wellbeing of residents from the village affected by the pollution? Yes / No. How?
2. Is the origin of pollution inside the village? Yes/No/Partially
3. Does the village have any direct control on the activity leading to the pollution? Yes/No/Partially
4. Are the livelihoods / wellbeing of residents from the village dependent on the activity causing pollution? Yes / No
5. Does the pollution affect people outside the village? Yes / No
6. Are the livelihoods / wellbeing of people from outside the village depending on the activity causing pollution? Yes / No
7. Does the pollution lead to degradation of land and affect the produce? Yes / No
8. Is the pollution inside the village affecting the soil health? Yes / No

Here is an example of the way the response to these questions can be the basis for action. If there is pollution of water in ponds and tanks:

1. It might affect the health of the people and the livestock using water from the ponds / tanks for bathing / drinking etc.
2. It might also reduce fish yield affecting the livelihoods of those dependent on fishing / pisciculture.
3. Fish from polluted water bodies may also themselves be contaminated to the extent that people consuming the fish also suffer from health problems?

The sources of such pollution might be:

- Indiscriminate and excessive use of fertilisers and pesticides.

The livelihood association of the sources in that case is:

- Agricultural Production and Farmers' incomes dependent on use of Fertiliser and Pesticides

If the situation analysis has identified the situation of water pollution, it could lead to a plan that might seek to:

- a. Reduce use of Chemical Fertilisers and Pesticides by substituting them with indigenous/organic fertilisers and pesticides.
- b. Reducing fertiliser use by finding out optimal requirement of fertilisers through soil testing
- c. Changing fertiliser application procedure to reduce run off to water bodies
- d. Induce rainwater infiltration to reduce fluoride content of ground water
- e. Reducing application of fertilisers and pesticides by shifting to cropping pattern that requires less use of chemical fertilisers and pesticides.

Of course there may be several sources of pollution that are neither within the village boundaries and nor within the direct control of the village. In such situations, there might be need for discussions and negotiations with those who have control over the source of pollution. There can be collaborative action in case of pollution which originate from within as well as from outside the village. The following is an indicative list of pollution causing activities inside and near villages:

#### **Typically within the Control of Village**

1. Indiscriminate use of Fertilisers and Pesticides
2. Open Defecation
3. Poor Waste Disposal Practices and Lack of Sewerage
4. Increasing use of plastic bags and bottles and lack of safe disposal
5. Improper disposal of medical wastes

#### **Typically with little or no control of the village over the source**

1. Open Quarries
2. Stone Crushers
3. Mineral Processing Industries
4. Chemical and Pharmaceutical Industries
5. Plastic Recycling Industry – especially in peri-urban areas
6. Brick kilns

#### **Depletion of Resources**

Depletion of natural resources is another key parameter affecting the quality of life and especially inter-generational equity. Depletion of resources can be looked at from the perspective of the inter-linkages between the situations of different aspects of the environment. For instance, decline in tree cover leads to greater run-off causing erosion of soil as well as reduction in capacity of water bodies. Lesser availability of surface water can cause excessive reliance on ground water, leading to falling water tables. Erosion and falling water tables can, in turn, lead to reduction in natural regeneration of forests as well as survival and growth of tree cover in general. The situation analysis of the depletion of different elements in the environment and ecology can also be analysed in the same way as suggested for analysis of pollution.

1. Are the livelihoods / wellbeing of residents from the village affected by the depletion? Yes / No. How?
2. Is the origin of depletion inside the village? Yes/No/Partially
3. Does the village have any direct control on the activity leading to the depletion? Yes/No/Partially
4. Are the livelihoods / wellbeing of residents from the village dependent on the activity causing depletion? Yes / No
5. Does the depletion affect people outside the village? Yes / No
6. Are the livelihoods / wellbeing of people from outside the village depending on the activity causing such depletion? Yes / No

While some depletion can be entirely prevented through proper use management, there are some parts of the environment that are bound to be depleted irrespective of the management of their use. In such a situation prudent and controlled use along with identification and use of alternatives is the only way to bring down the rate of depletion and to ensure that current generations do not end up sacrificing the interests of the future generations. For example, if the village has hills that can be used for manufacturing of stone chips or stone slabs, it needs to decide the rate at which such hills are used up. There are several examples of villages where entire hills have vanished on account of stone crushers.

## Environment, Vulnerability to disasters and Disaster Preparedness

While analysing the depletion of environmental resources, one major element that needs to be kept in mind is the impact of such depletion on the vulnerability of the village to natural disasters. Trees and Hills reduce the impact of storms. Mangroves, especially, reduce the impact of cyclonic storms and threats of surges of sea. Forests, rainwater harvesting (*in-situ* and *ex-situ*) and soil and moisture conservation measures reduce the impact of drought. At the same time presence of certain trees in the habitation areas can actually increase vulnerability in case of cyclonic storms. Often in cyclonic storms, more houses are damaged and more people are injured and killed on account of falling trees than on account of the blowing away of roof-tops and houses.

## Situation Analysis of the Ecology, Flora and Fauna

While Pollution affects quality of life negatively, ecological elements influence quality of life positively. Forests, Water Bodies, Hills, Flora (all plant life) and fauna (all animal life) are not only economic resources, but they also contribute to the overall happiness and quality of life. Are not children of a village with lots of trees and birds not happier than children of a village devoid of them? Are not children of a village with clean ponds and streams not happier than those whose streams and ponds are polluted and depleted? Analysing the status of such ecological elements is therefore critical for planning the enhancement of prosperity as well as happiness of the village.

The extent and composition of forests, trees existing in the village on agricultural and other lands, as well as trees and plants in the habitation areas of the village can be assessed in terms of both quantity as well as variety. The youth and children of the village could work with the elderly women and men to draw up:

1. Trend analysis of forest and tree cover in and around the village. Is there an increase in forest and tree cover over the years or has there been a declining trend? What are the reasons behind the trend?
2. Trend analysis of animal life (Animals / Birds / Fish / Reptiles / Insects etc.) in and around the village. Is there an increase in such animal life over the years or has there been a declining trend? What are the reasons behind the trend?
3. Cataloguing the use of different trees, plants and animal life for food, fuel, medicines and other uses

### Trend Analysis

Analysis of trend in terms of forest cover, density of forest and species pattern can provide important inputs for the planning process. Trend Analysis is a tool in Participatory Rural Appraisal that can provide such assessment.

Preparation of a People's Biodiversity Register<sup>3</sup> (PBR) can be a structured way of doing such a situation analysis. The preparation of a PBR helps the estimation and appreciation of the value of bio-diversity. Adaptation / revitalization of traditional

#### **Sacred Gardens**

Assigning religious and cultural values to trees and forest areas has been one of the most significant ways in which our ancestors have preserved forests and helped in the planting and protection of trees that are especially necessary for environmental and medicinal values. Identification of such forest areas and listing them can help in planning for arresting their depletion and enhancing their status.

Indigenous knowledge will also help in rejuvenation of natural resources and prevent the loss of transmission of such knowledge from one generation to the next.

Like in the case of pollution, the situation and trends in flora and fauna can be assessed from the perspective of the degree to which the village contributes to the same and the degree to which they can control the same. An interesting example of villagers analysing their own situation and taking action to halt the degradation of forest is that of villages in coastal Odisha which suffered on account of the difficulty of finding enough fuel wood to cremate their dead. The community based forest management that was ignited by this very simple but critical reason has so far spread to hundreds of villages in the Khurda and Nayagarh districts of Odisha leading to the protection and regeneration of thousands of hectares of forests. But what had been kicked off by the natural human desire to ensure dignity for the dead now achieves much more than that in terms of providing subsistence and livelihood.

Eco-Tourism is an important and fast growing economic activity. Forests and other eco-system elements such as water bodies, hills, wildlife etc. provide direct and indirect income and employment as well as environmental services. Eco tourism adds further to their value by adding a further income stream from tourism.

## **CHAPTER- VII- CIVIC AND OTHER AMENITIES**

These are critical for enhancing the quality of life in the Gram Panchayat. The information can be captured from the PRA exercises, the baseline survey and supplemented through discussion with officials. Civic amenities can be those related to households and to the public in general.

### **Household amenities**

These include housing, drinking water and electricity connection. Housing is provided only to families Below Poverty Line. The housing situation of such families needs to be analyzed and list of such families requiring a new house and those

<sup>3</sup> For details, refer [http://wgbis.ces.iisc.ernet.in/biodiversity/sahyadri\\_eneews/newsletter/issue15/index.htm](http://wgbis.ces.iisc.ernet.in/biodiversity/sahyadri_eneews/newsletter/issue15/index.htm)

requiring upgradation of their house may be prepared. The norms for prioritization as revealed from the participatory process should clearly be stated.

Household sanitation should be universal. This should cover both construction of toilets, disposal of liquid waste and in-situ management of solid waste to the maximum extent possible. The current situation should be captured in tables and the gap vis-à-vis the desirable situation explained.

As regards drinking water, availability, quantity and quality have to be measured and analyzed and the shortfalls quantified. Ideally, every household should be able to get a piped-water connection subject to availability of source. Therefore, possible sources of drinking water supply also need to be identified and discussed.

Universal coverage with electricity connection to households is to be aimed at and the list of households not having electricity has to be prepared and possibility of providing connection from the grid or providing at least solar lights needs to be explored. The distance for drawing electricity lines and the source have to be delineated and mapped.

### **Public amenities**

The following are the public amenities which are important:-

1. Street lighting
2. Sports facilities especially play grounds
3. Community halls
4. Libraries
5. Burning ghats/burial grounds
6. Common Service Centres
7. PDS outlets
8. Post offices
9. Banks
10. Public transport

The adequate coverage of these amenities needs to be analyzed and mapped. Analysis of public amenities should indicate their service area to find out whether all habitations are covered. In the case of existing amenities, quality issues have to be specially dealt with. In the case of items 7 to 10, adequate justification with concrete data has to be provided in the situation analysis for setting up/expansion of these facilities.

# **PART-B**

## **MODEL STRUCTURE OF VDP DOCUMENT**

The Situation Analysis presents the current status of the Gram Panchayat. The Village Development Plan represents the way the current situation needs to be changed towards the collective vision of the people for their Gram Panchayat. Visioning Exercise could, therefore, be a very interesting part of the entire VDP preparation process (for more on this refer to the SAGY guidelines). The entire vision, of course, cannot be achieved over a short period of one year. Thus both in the visioning exercise as well as the situation analysis, prioritisation and sequencing of issues, actions and objectives will be a key step.

The draft document could have an opening chapter which is a crisp profile of the villages. The next chapter could be an analysis of the development situation again summarising the situation analysis in a comprehensive and integrated manner. As part of this chapter, the vision of the people of the Gram Panchayat the key challenges faced, the priorities and the strategies proposed to address them could be outlined in brief

Thereafter the thematic chapters need to be elucidated. They are

1. Infrastructure
2. Civic and other Amenities
3. Human Development
4. Social Development
5. Economic Development
6. Ecology & Environment
7. Governance

As a general principle each chapter needs to be broken up into the following sub-sections:

1. Challenges identified in the situation analysis
2. Priorities determined by the people
3. Strategies to address the challenges identified as priorities
4. Plans and projects to convert the strategies into action  
These plans and projects should be further sub-divided into the following:
  - a. Activities
    - i. Description
    - ii. Costs and source of funds – existing schemes, other funds, contributions etc.

iii. Other resource requirements and how they would be met – human resources, technology support etc

IV. Processes and procedures

v. Roles and responsibilities of different actors including those related to convergence and participation

VI. Timelines

b. Targets/Outputs and Monitoring arrangements

c. Anticipated Outcomes

d. Sustainability arrangements – including assessment of risks and outlining of mitigation measures

(If there are several plans/ projects, a brief summary may be given in the chapter concerned and the details given as annexes

- a. Peoples' own contribution (labour, kind and cash)
- b. Scheme funds (Centre including MPLADS, State)
- c. Gram Panchayat's resources- own resources, SFC Grants, CFC Grants
- d. Private/PPP Investments
- e. CSR investments
- f. Investments/public contributions by NGOs and Cooperatives
- g. Donations from philanthropists
- h. Loans, especially to individual and group beneficiaries

While the investments for different components would be limited by the resources available, there has to be universal coverage of certain items. They are:

1. Housing
2. Sanitation
- 3 Drinking Water
- 4.Power connectivity
- 5.Physical connectivity to all habitations
6. Street lights in all important streams
7. Total electronic connectivity
- 8.100% Aadhaar enrollment
- 9.Universal enrollment in anganwadis

10. 100% access to education till Class 10
11. All vacancies of teachers in schools to be filled
12. Total literacy
13. 100% immunization upto 5 years of age
14. 100% institutional delivery
15. Improved nutrition status for all
16. Universal access to health card and medical examination
17. Universal coverage of NRLM
18. Full employment under MGNREGA
19. Universal provision of soil health cards to farmers
19. Social security schemes for all eligible families- NSAP, RSBY, AABY
20. Universal coverage of PDS
21. Universal financial inclusion through PMJDY

### **Concluding General Chapters:**

These would be integrated summaries of points covered earlier in the thematic chapters. The following are the suggested chapters.

1. Resource Mobilisation for the plan
2. Innovations
3. Administrative arrangements
4. Arrangements for participation in implementation, transparency, monitoring
5. General outcomes

