

Chapter 5 Obtaining basic data

5.1 Objectives and procedural outline

The objectives for obtaining the basic data of a target area are as follows:

- 1) To understand the current situation and special conditions of an area in order to foresee the direction in which to develop the project, and,
- 2) To acquire information for identifying and selecting the target communities where the activities will be carried out.

The data obtained in this process may, on some occasions, be used as a baseline for monitoring changes in the groups participating in the project. However, much of the data will not be useful for such purpose because, at the initial stage a project would not have finished selecting its beneficiaries or defined the specific information needed for monitoring. Therefore, it would be recommendable to conduct a separate study for obtaining the baseline information needed for monitoring and for establishing the evaluation indicators (see Chapter 12).

The study to obtain basic data on the population of a target area consists of the following steps:

STEP (1): Select the topics to be studied

The issues to be studied in a target area, to obtain its basic data, should reflect the study's objective and criteria; furthermore they should be necessary and appropriate for beginning the project's activities.



STEP (2): Choose the study method; Conduct the study

Select the study methods that will be used for gathering the necessary data with efficiency and objectivity. Next, carry out the study.



STEP (3): Analyze the data obtained and Select the target communities

Process and analyze the data obtained in order to describe the current situation of the target population. Share the recommendations made by the project team for initiating the activities.

This chapter explains in further detail each one of these steps so that project personnel may be able to plan and coordinate the study for obtaining the basic data at the start of a project. The detailed steps are presented below.

5.2 Step (1): Selection of the topics to be studied

In order to fulfill the study's two purposes mentioned above, two types of information are needed, namely data on natural resources and data on socioeconomic conditions. The socioeconomic data is broken down in greater detail as shown below:

- Data on natural resources
- Socioeconomic data
 - Social infrastructure;
 - Human resources;
 - Daily life;
 - Social relationships;
 - Knowledge and experience.

The following table presents the topics that are generally studied for obtaining the two types of information necessary. Regarding the “data on natural resources”, depending on the project's purpose or activities, more specific topics under natural resources may need to be studied (for example, if the project is about wildlife conservation, you would want to add the study of wildlife habitat). There can be flexibility in selecting the socioeconomic topics to study as well, according to project needs (for example, if the project were about aquatic resources you could add the topic of studying fishing activity).

Some of the topics will be useful not only for analyzing the area's conditions, but also for identifying the communities with priority for introducing project activities. In this case, the topics for identifying priority communities could be marked with a circle “ ” with an explanation of how they relate to the criteria for selecting communities.

Table 5-1 Examples of topics to study for obtaining basic data on a target area

Category	Topics	(Example) Topics used to prioritize the communities
Data on natural resources and their utilization		
Physical situation	- Topography	
	- Climate	
	- Vegetation, land use	1
	- Soil	
	- Environmental degradation (for example, soil erosion)	1
Water Resources	- Main water source	
	- Abundance and availability of water	
Biodiversity	- Distribution of natural and planted forests	1
	- Distribution of wildlife	
	- Tree species used and their utility	1
Agriculture	- Land ownership (access to land) and the size of agricultural land	
	- Practice of slash-and-burn agriculture	1
	- Main crops and techniques (farming to sell crops or for own consumption, type of seeds, use of fertilizer and pesticides)	
Cattle farming	- Land ownership (access to land) and the size of pastureland	
	- Type of pasture grass	1
	- Main domestic animals	
Socioeconomic Data		
Social Capital	- Transportation infrastructure and the community's accessibility	8
	- Public organizations in the community and their infrastructure	
	- Infrastructure for drinking water	
Human Resources	- Population and its composition (number, sex, age)	2, 6
	- Level of education	
	- Occupation / agricultural activity	3, 4
	- Primary source of income	5
	- Monthly family income	5
Daily Life	- Construction material of house (walls, roof, floor)	5
	- Most frequent sickness and their causes	
	- Primary source of fuel for cooking	1, 5
	- Infrastructure for farming and transporting produce	
Social Relationships	- When the inhabitants came to live in the community and from where	
	- Custom of community members helping each other	
	- Conflicts in the community	
	- Participation in the meeting and organization	
	- Participation in activities by public organizations	
	- Participation of women in the meeting / in farm work	6
	- Decision making in the family (sales; use of money; man and woman)	
Knowledge and experiences	- Knowledge about conservation techniques	
	- Knowledge and experience in silviculture	
	- Experiences in seminars on conservation techniques, etc.	
	- Community's experiences in conservation projects	7
	- Existence of any projects being implemented with the community	7

Note: The topics marked with are those used for selecting communities with priority to becoming the project's target communities (see the case presented below in section 5.4. The numbers on the side are the criteria numbers.)

5.3 Step (2): Choosing the study methods; Implementation of the study

Once you have selected the study topics, you can begin the study. The primary methods used in the study are to review available material and to conduct a field study. Generally, one should begin the study by reviewing any available information. The basic data on a target area (location of communities, schools, roads, total population and population by sex, topographical relief map, hydrological network, etc.) can often be found in currently available information. Use the information obtained from available sources to plan a field study in the area to obtain any information that may be lacking. It would be recommendable that the field study be as focused and compact as possible with very specific objectives and topics. This will make for a more effective use of time, personnel and a limited budget.

5.3.1 Reviewing available information

1) Statistics

The basic documents of the Directorate of Statistics and Census of the General Comptroller (www.contraloria.gob.pa/inec/) have statistics on areas in the Republic of Panama, including the following:

- National census on population and housing;
- National agriculture and livestock census;
- Panama in numbers.

You can probably obtain more specific statistical data on your target area, such as population distribution by community, at the borough (*corregimiento* in Spanish) office and health centers administrating the area. You might find other information there that would be useful for project activities, such as the location of schools, the existence of community groups, etc.

2) Maps

Maps are very important for learning about the area's topography, the existence of roads for transportation, and for deciding on land use. The Tommy Guardia Geographic Institute (<http://ignpanama.anati.gob.pa>) publishes maps with a scale of 1:50,000 covering the entire country, which are for sale to the public (however, some areas of the country are not covered).

3) Available documents

The public institutions and NGO's implementing projects in the same area as your project may have some documents and information from their own studies. These organizations may also have some information about other areas you are interested in or they could suggest some other information sources. Therefore, it would be advisable to contact such places before starting your project.

5.3.2 Field study

There are different methods for obtaining data in a field study, including surveys, interviews, direct observation, and workshops. These are described briefly in the table below. Select the methods that you think are most appropriate for obtaining the basic data, taking into account the purpose of the study, the time, personnel and budget limitations. A combination of different methods allows you to analyze the same information from different angles and will increase the objectivity of the study.

Table 5-2 Basic field study methods

Method	Content	Restrictions		
		Time	Budget	Specialty
Questionnaire survey	Processing of statistics taken from the answers written by people who were surveyed.	Variable depending on the number of samples	Variable according to the number of samples	Statistics and computer operation
Interview with questionnaire	Processing the statistics taken from the answers written by people who were interviewed.	Long	Large	Statistics and computer operation
	(Variation) Individual interviews	Variable depending on the number of samples	Variable depending on the number of samples	
	(Variation) Interview of focused groups	Short	Small	Techniques of a facilitator
	(Variation) Interview the key informants of the community	Short	Small	Techniques for an impartial analysis
Direct Observation	Reporting the data obtained by an observer using established criteria (minimizes subjectivity).	Medium	Small	
Workshop on Rapid Rural Appraisal (RRA)	Analyzes the information obtained allowing diversity and differences in perception	Medium	Medium	Techniques of a facilitator and triangulation

Note: Researchers can obtain both quantitative and qualitative results from any of the study methods, as long as the method used is well prepared and carefully applied.

5.3.3 Issues to consider when obtaining basic data

1) Importance of informal conversation

In a baseline study, one does not necessarily have to prepare a formal questionnaire for planned interviews. Many times you can obtain more suitable information by other means, such as in informal conversations after finishing the formal interview. Therefore, it is important that you program your study well so that you leave sufficient time for opportune conversations and not limit yourself strictly to the formal study.

Also, while walking to the study site be alert of your surroundings. Be especially observant on your first visit to an area because the surrounding scenery contains a lot of concrete information, such as the type of vegetation, the population density, the condition of the roads and trails, what people have, what they are doing and dressing, etc.

2) Establishing basic human relationships with the community inhabitants

Any time project personnel visit a study site it is an opportunity for them to build ties of friendship and trust with the inhabitants of that rural community. The baseline study may be one of the first activities that the project does in the target communities. Therefore, the project personnel should work to build trust with the people of the communities through their conversations and/or interviews.

3) The initial baseline study will not give all the information needed for the entire project period

The baseline study is done at the beginning of a project. It is very important to recognize that a single baseline study will not provide all the information necessary for starting activities in the communities. Different data will be needed in the project depending on the stage of development of its various activities. Therefore, if any additional data is needed, it can be obtained at another time.

5.4 Step (3): Analysis of the obtained data and Selection of target communities

1) Processing the data and preparing the study report

The quantitative data obtained is processed into statistics by qualified personnel. The qualitative data obtained through individual and group interviews and the assessment workshop is edited and organized with observations added by the researchers.

The processed and organized data should be made into a report for the use of project personnel. Furthermore, it should be used as a reference when preparing the activity plans. In order to expedite the preparation of the report, the project team should agree upon the structure and the procedure for making the report before

conducting the study. In some cases, it may be preferable to quickly prepare a simple and flexible report that contains all the essential information, giving priority to speed over precise detail.

In a field study one can capture the specific data about an area. This data will help you in determining where to start the activities for achieving the changes proposed by the project. The recommendations made by the project team's analysis of the data are very important for determining what potentials and what risks are involved, how to strengthen the positive elements, and how to mitigate the negative elements. Such factors should be taken into consideration before beginning activities in the rural communities, and corresponding adjustments should be made in the activity plan. The recommendations arising from data analysis should be very clear and achievable so that concrete measures can be planned corresponding to the foreseen potentials as well as the obstacles and risks.

The following is the general outline of a study report:

- ✧ Objective and background of the study;
- ✧ Selected study topics and methods used (study procedure);
- ✧ Study results (by topic);
- ✧ Analysis, synthesis and summary of the characteristics of the area studied;
- ✧ Evaluation for selecting the beneficiaries (target communities) of the activities;
- ✧ Recommendations (important considerations for beginning activities);
- ✧ Bibliography and reference documents.

2) Evaluation for selecting the beneficiaries (target communities) of the activities

One of the results of the study is to prioritize the target communities for the next step, which is promoting the project to the communities. Based on the concept and results of the study, you can decide on the priority criteria for the target communities. An example of criteria for prioritizing target communities is presented below. Remember that one can be flexible in setting these criteria depending on the project's purpose or its activities. For example, if the project's purpose is the management of aquatic resources, then the population and percentage of fishermen could be important criteria.

Table 5-3 Examples of criteria for prioritizing the communities

	Criteria	Reasons
Natural resources		
1	Level of environmental degradation (Severe, Moderate, Light) <u>Each project should set its indicators (i.e.: forest coverage, erosion, etc.) for determining the level of degradation</u>	One of the main pillars of a watershed management project is the conservation of the watershed environment, therefore priority needs to be given to areas with greater degradation requiring more effort for their recovery.
Socioeconomic conditions		
2	Number of families (Communities with more than 20 families)	If a community’s population is small it will be difficult to organize community groups.
3	Proportion of the agricultural/livestock farmer population (More than 40% of the total population)	In order to establish sustainable farming technology that is compatible with the environment of the target area, the involvement of agricultural/livestock farmers in the project is indispensable.
4	Number of agricultural/livestock farmers (More than 10 people who do farming/livestock activities)	Even though communities in large population centers may be involved in the tertiary sector (service sector), the number of inhabitants doing agricultural/livestock activities is high and the burden on the environment is still great.
5	Poverty index <u>Each project should set its poverty indicators using both absolute and relative figures.</u>	For a project to be able to improve the environment and the inhabitants’ quality of life do not forget to involve the poor communities.
6	Specific population ✓ (Example: “female population is greater than 40%”) ✓ (Example: “there are more than 10 children under 10 years of age”)	✓ There will be areas where the female population is low; give priority should to promoting the participation of women and the sustainability of the activity. ✓ The youth are the future of the community; they are indispensable for the project’s sustainability and impact.
7	Presence of other projects (Communities that have had less than 3 projects during the last 5 years)	Having to coordinate activities with other on-going projects affects the efficiency of the activities. Also, a project will have greater impact on communities that receive less outside help.
8	Distance to the project center (Communities that can be reached in 2 hours from the project center.)	The time and effort required to arrive at a target site is an important factor affecting the efficiency of the activities.

The chart below is an evaluation matrix for prioritizing communities using the above criteria. Regarding the natural resources, environmental degradation is classified in three levels: “severe degradation”, “moderate degradation” and “light degradation”. They are based on the overall analysis of study results, especially the results of the most important natural resources that a project (or activities) plans to conserve and improve (i.e. forests, water, soil, wildlife, etc.). Under the socioeconomic criteria, when the study results indicate that a community fulfills a certain criteria, an “X” is placed in the corresponding box. If needed, greater value can be given to certain criteria (for example: “criteria No.1 is worth two X’s”) when there is a great difference in the

relative value of the criteria.

Once you have evaluated the communities using the selected criteria, you can classify them. “A” is for communities with greater environmental degradation and higher score in socioeconomic criteria; “B” and “C” are for communities with successively lower scores. The number of communities from each classification that can qualify as a target community will depend on the total number of communities in the area and the number of communities the project plans to work with.

Table 5-4 Model of a Prioritizing Matrix

Community	Prioritization Criteria								Classification for Prioritization			
	Level of environmental degradation	Socioeconomic conditions										
		1	2	3	4	5	6	7	8			
No.1	Severe	X	X	X		X		X	X	A		
No.2	Moderate	X		X	X	X	X	X			B	
No.3	Moderate	X		X	X	X	X	X			B	
No.4	Light			X	X	X	X					C
No.5	Light	X	X	X		X	X	X			B	
No.6	Severe	X	X	X			X	X	X	A		
No.7	Moderate		X					X	X			C
No.8	Moderate	X	X	X	X	X		X		A		
No.9	Severe	X		X	X	X		X			B	
No.10	Severe	X	X	X	X	X		X	X	A		

X: the community fulfills this criterion.

5.5 Inputs needed

Activity	Personnel	Time	Material and Cost
Review available information	A multidisciplinary team (2-3 people with different areas of specialty)	Visit 2-3 institutions / person / day	Obtain documents, make photocopies
Select the study topics and prepare a questionnaire	A multidisciplinary team (2-3 people with different areas of specialty); A questionnaire team (one person in charge and one assistant), if needed	2 weeks	Questionnaire sheets; Contract a
Field study (Interviews in 20-24 communities using a questionnaire)	An interview team, if contracted (one person in charge and 5 assistants); A questionnaire team (2-3 people with different areas of specialty)	1-2 weeks	questionnaire team, if needed. Cost: \$1,300 (for a team for 6-7 weeks)
Organize and analyze the data obtained (Processing data and preparing the report)	A questionnaire team (one person in charge and one assistant), if contracted; One data processing person, if needed; A multidisciplinary team (2-3 people with different areas of specialty)	2-3 weeks	