

ANNEX 5

SAMPLING AND DATA COLLECTION IN BOLIVIA

DESIGN OF THE BOLIVIA STUDY

Background

The importance of “Social Capital” in the processes of decentralization and local development are increasingly recognized.

Social Capital is understood as the universe of community organizations, their networks and their modes of action in relation to the State. The foremost argument is that strong social capital has a positive influence in the processes of decentralization and local government. The World Bank is considering, therefore, policies directed at strengthening social capital in its decentralization and local development programs. This requires having empirical and comparative information on social capital and its presence in local development.

Objectives

General objective. To carry out a diagnostic study on the incidence of social capital in the local development of four municipalities of Bolivia.

Specific Objectives

1. Develop an inventory of the grassroots organizations and institutions present in each community and municipality.
2. Determine the specific role of these organizations and institutions in the provision of services. Identify which are the most important organizations/institutions.
3. Describe the relationship of the grassroots organizations:
 - with each other
 - with the families/individuals
 - with the Non-Governmental Institutions (church, international donors, media)
 - with local private enterprises
 - with local state entities
4. Establish the contextual factors that influence the greater or lesser incidence of these grassroots organizations in local development (provision of services):

- Historic
 - Economic
 - Ethnic-cultural-religious
5. Identify the role of social capital (network of grassroots organizations and local institutions) in the achievement of “successful” local development projects.
 6. Specify how the World Bank and other donors can work with this social capital in order to implement “successful” development projects.

Objectives and research techniques

Research Techniques					
Objectives	Community			Municipalities	
	Survey to Heads of Household	Group Interviews to Key Informants	Focal Groups	In-depth Interviews	Case Studies of Successful Projects
Inventory of Grassroots Organizations and Institutions					
Role of Social Capital in the Provision of Services					
Relationship Between Social Capital and Other Local Entities					
Contextual Factors that Influence the Formation of Social Capital					
Role of Social Capital in Successful Projects					
How to Work with Social Capital in Successful Projects					
10 Communities per Municipality. 4 Municipalities	25 hhs per community, i.e. 250 hhs per municipality Total = 1000	1 group interview per community, i.e. 10 per municipality Total = 40	2 groups per community, i.e.20 per municipality Total = 80	6 interviews per municipality total = 24	2 case studies per municipality. Total = 8

Defining the variables

VARIABLE 1: Inventory of Grassroots Organizations and Local Institutions	
1.1 Type of Grassroots Organizations	<ul style="list-style-type: none"> • Community Organizations in General • Gender • Youth and Old Age • Religious • Social Volunteering • Environment • Productive • Community Work • Natural Resources Management • Credit related • Trade • Supracommunal • Recreational • Education Related • Health Related • Others
1.2 Local Institutions	<ul style="list-style-type: none"> • NGOs • Church • International Cooperation Local Projects • Local Media • Others
VARIABLE 2: The Role of Social Capital in the Provision of Services	
2.2 Services	<ul style="list-style-type: none"> • Education • Health • Financial • Clean Water Consumption • Land and Housing • Irrigation • Roads • Transportation • Communication
2.2 Role	<ul style="list-style-type: none"> • Organization of the Service • Management • Fiscalization
VARIABLE 3. Relations of the Grassroots Organizations	
3.1 Between Them	<ul style="list-style-type: none"> • Type of Relationship (cooperation/antagonism) • Pursued Goals • Results Obtained
3.2 With Families and Individuals	<ul style="list-style-type: none"> • Importance Assigned by the Persons • Degree of Participation • Participation and Access to Services • Socio-economic Situation and Participation

VARIABLE 3. cont.	
3.3 With Other Non-gov'tl Institutions	<ul style="list-style-type: none"> • With NGOs • Church • International Cooperation • Local Media
3.4 With the Local Private Enterprise	<ul style="list-style-type: none"> • Type of Relationship (cooperation/antagonism) • Pursued Goals • Results Obtained
3.5 With the State	<ul style="list-style-type: none"> • With the School • With the Health Service • With the Municipality • With the Prefecture • With the Central Government Funds
VARIABLE 4: Contextual Factors that Influence Social Capital	
4.1 Historic	<ul style="list-style-type: none"> • Organizing Experience of the Grassroots Organizations • Type of Grassroots Organizations(traditional or not) • Experience in the Agrarian Reform • Type of State Presence • Tradition on Appeal/Lobbying Experience with the State • Tradition of NGO Presence in the Zone
4.2 Economic	<ul style="list-style-type: none"> • Productive Potential of the Zone • Relationship with the Local, Regional and National Market • Poverty Indicators • Degree of Internal Stratification
4.3 Ethnic-cultural	<ul style="list-style-type: none"> • Internal Ethnic Diversity • Local Demands in Accordance with Cultural Values • Receptivity to Occidental Values • Cultural Norms in Relating with the State • Religious Diversity and its Relationship to Grassroots Orgs
VARIABLE 5: Role of Social Capital in Successful Projects	
5.1 Successful Projects	<ul style="list-style-type: none"> • Types of Projects • Satisfied Needs • Planning, Implementation and Evaluation Processes • Role of the State in these Projects • Role of the NGOs in these Projects
5.2 Grassroots Organizations in These Projects	<ul style="list-style-type: none"> • Role of the Grassroots Org in these Projects • Differentiated Role of Leaders and their Base in these Projects • Forms and Degree of Participation of the Grassroots Org • Legitimacy of these Organizations in the Community • The Grassroots Org and Distribution of Project Benefits • The Grassroots Organizations and the Project's Transference
VARIABLE 6: How to Work with Social Capital in Successful Projects	
6.1 Relationship of the GROs with the State and NGOs	<ul style="list-style-type: none"> • Types of Relationships with the State in Successful Projects • Types of Relationships with the NGOs in Successful Projects
6.2 Forms of	<ul style="list-style-type: none"> • Forms of Financing of Successful Projects

Target population

Four predominantly rural municipalities were selected, where a relatively advanced application of the Popular Participation Law has been identified, with similar socio-economic and population conditions, and belonging to different geographic regions.

- The advanced application of the Popular Participation Law is based on general criteria presented by State employees.
- The similar socio-economic conditions will be measured following these indicators:
 - ◆ Incidence of poverty
 - ◆ Number of inhabitants
 - ◆ Urban-rural population ratio
- One municipality in the highlands, two in the valleys and one in the tropics, will be selected.

The municipalities selected are:

Municipality	Region	Population	Popular Partic. Budget 1996	Rural/Urban Ratio	Poor Population (1)
Tiawanacu	Altiplano	13,151	1,631,217 Bs.	97.8 %	87 %
Villa Serrano	Valle	12,617	1,564,981 Bs.	93.8 %	93 %
Gutierrez	Llano	9,833	1,219,661 Bs.	96.9 %	75 %
Mizque	Valle	20,170	2,502,581 Bs.	98 %	96 %

(1) The poverty rates are at the province level

The municipality of Mizque will be studied as a particular case, which differs from the other three in terms of population and incidence of poverty, in order to identify the characteristics of social capital in more precarious socio-economic situations.

In each municipality, the 10 communities will be selected according to a simple probability sampling.

SAMPLING AND FIELD WORK

Sample selection

Sample Framework

The demographic information of the National and Housing Census of 1992, of the National Institute of Statistics (INE) was used in the selection of communities and interviewees.

Selection of Communities

From the INE information, lists of communities for each municipality were prepared, starting with the most numerous in inhabitants and ending with the least.

Once the lists were ready, a statistical selection was made using a systematic method. The following steps were taken:

1. The capital of each municipality was selected in order to include an urban setting in the sample.
2. The number of rural communities in each municipality was divided by nine. The quotient was considered as the factor of systematic selection.
3. The first community to be included in the sample (in addition to the capital) was identified through a method of simple random sampling.

This procedure of systematic selection ensured the presence of municipal capital as an example of an “urban” setting. There were also nine rural communities - including both large and small populations. At the same time, the rigorousness of the statistical approach was also ensured.

Selection of Households

Two procedures were followed for the selection of the households: one for the municipal capitals (urban area); and the other for the nine rural communities.

Selection of households in the urban area. In the capital of each municipality the two-step sampling method was used in the following way:

1. Simple random selection without replacement of “manzanos”, based in the cartographic map elaborated by INE.
2. In each “manzano” selected, a systematic selection of the households was made to include them in the sample. For this, the number of houses in each “manzano” were counted. This number was then divided by the number of interviews to be

made in each “manzano” (generally four). The quotient was considered as the factor of systematic selection. The first household to be included was selected on a simple random basis. From this first household, the other three were selected through the systematic selection factor.

Selection of households in the rural area. In the rural area, two procedures were followed:

1. First Procedure
 - a) All the households of the community were counted. The number of households was divided by the number of interviews to be made (25 in total). The quotient was considered as the factor of systematic selection.
 - b) The visible center of the community was identified. The first household to be included was selected on a simple random basis.
 - c) From this household a route in open spiral was followed in clockwork fashion, selecting the households for the sample according to the factor of systematic selection. This route was followed including in the sample the households that were farthest away from the center of the community¹.

This procedure was applied to two communities of the Tiahuanacu municipality. After its application, the procedure of selection of the households was changed for the remaining rural communities.

2. Second Procedure
 - a) All the households of the community were counted. The community was then divided into four imaginary quadrants, based on the visible center of the community.
 - b) All the houses in each quadrant were counted again and were assigned the number of questionnaires according to the proportional weight of the number of households in the quadrant.

¹ Contrary to what might be expected, in the majority of rural communities in the country, no marked internal social stratification is observed. The relatively “wealthier” campesinos do not live near the center of the community, but close to the road (which is usually on the outskirts or cuts across the community). For these reasons, and Sinergia’s past experience, one can be sure that this type of selection in rural communities guarantees an adequate representation of the population. (“Campesino” is translated as one who is of the land or country. The term is generally used to refer to a subsistence farmer or cultivator who may be the owner, tenant, or salaried worker.)

- c) In each quadrant the total number of households was divided according to the number of questionnaires assigned. The quotient was considered as the systematic selection factor for that quadrant.
- d) The starting point was chosen taking into account the household that was located at the northern most point in the quadrant. From this household, the rest of the households were selected according to the factor of systematic selection, following an outside-in spiral route, towards the center of the respective quadrant.

The head of household was interviewed in each household. If the head of household was not found in the selected house, a replacement household was sought, following the same procedures explained above.

In sum, one can say that a multi-step random sampling method was applied, with systematic selection of communities and households.

Field work

Initial Contacts with Municipalities

In order to carry out the field work, initial contacts with institutions, authorities and leaders of the selected municipalities were made through NGOs with many years of work in those zones.

Due to Sinergia's permanent activity in the areas of social research and evaluation of social projects, these NGOs have regular contacts with our institution. Thus, they were aware of the study's objectives and provided all their support for its realization.

Initial contacts were made with the municipal authorities and leaders of grassroots organizations through these NGOs. Explaining the scope and objectives of the study to them in writing as well as through personal interviews helped enlist their support.

Planning of the Field Work

Once the initial contacts were made, planning of the field work began by establishing an initial timetable. This timetable was later modified, as will be detailed later.

Two field work teams were formed: one, dedicated entirely to the qualitative data collecting work from focal groups, group interviews, in-depth interviews, and documented research. The other team was entirely dedicated to the application of the questionnaire for heads of households, in the framework of the quantitative data collection.

The qualitative research team. Sinergia selected a team of six professionals, all specialists in qualitative studies, from the pool of social scientists involved in the institution's research

work. This team was trained in the objectives of the study and the use of the instruments, in a six-day workshop.

The team was coordinated by Lic. Beatriz Ascarrunz and Lic. Julio Córdova.

The quantitative research team. In the same manner, Sinergia chose four teams of interviewers (one per municipality), all persons with an average of five years experience in this type of work. Ten interviewers were selected for each municipality.

Each team was trained, during three days, on the objectives of the study and the application of the questionnaire to heads of households. Guided practice sessions in application of the instrument were carried out in order to correct errors.

This team was coordinated by Lic. Carola Capra, Architect Reynaldo Rojas, Engineer José Luis Ballivian, Mr. Marcelo Bustamante and Mr. José Antonio Valda.

Field Work

The field work took place from March 3rd to April 26th, 1997. The data gathering phase took place simultaneously in two municipalities, beginning with Tiahuanacu (La Paz) and Mizque (Cochabamba). In a second phase the study was made in Villa Serrano (Chuquisaca) and Charagua (Santa Cruz).

For the data gathering in each community selected, simultaneous work between the qualitative and quantitative teams was coordinated. The application of the questionnaire, the focal group interviews and the group interviews took place simultaneously after obtaining the consent of the community leaders. A letter signed by Sinergia with the support of the Municipal authorities was presented to the community leaders, for their consent.

The supervision of the qualitative and quantitative field work was carried out by the coordinators of the respective teams.

Fieldwork Problems

- One of the more serious problems faced in the field work was due to the rainy season that, this year, lasted much longer (until the end of April). This caused the inaccessibility of the roads to the communities and therefore, many problems for the field work teams. This was the major reason for the delay in the field work phase.
- Another difficulty was due to the agricultural season, during which the field work took place. This occurred during the end part of the harvest. Many farmers were busy in these tasks during major parts of the day. This difficulty was overcome thanks to the previous contacts with the communal authorities who encouraged the farmers to cooperate with the study, stopping their harvesting work when necessary.

A third difficulty was faced due to the temporal and permanent migratory processes of the heads of households in many communities. This made contact with the heads of household much more difficult.

- A fourth difficulty arose from the dynamic of the Municipal authorities. Since the dictation of the Law of Popular Participation, the Municipal authorities face a heavy agenda of activities because they have now become the center of channeling of community demands, and the managers of 25% of the national tax revenues for use in local projects. In addition, the new dynamic of the Popular Participation implies the presence of numerous research, consultant and fiscal control teams visiting the municipal authorities from the capital cities of the nation. This made appointments for interviews with the municipal authorities very difficult. Nevertheless, these took place thanks to the effective mediating work of NGOs working in the regions.
- Another difficulty was due to the extent of the questionnaire. Applying the questionnaire lasted between 1.15 to 1.30 hours. This caused many heads of household to interrupt the interview before it ended, which meant that the interview had to be replaced by a new one.
- A final obstacle arose in the difficulty of many interviewees, especially women, to express their ideas in Spanish. These individuals expressed themselves better in their native languages (Aymara and Quechua). This was especially so in Tiahuanacu (La Paz) and Mizque (Cochabamba). This meant that the interviewer or focal group leader had to translate the questions to the native language, taking care to maintain the original meaning as faithfully as possible. Anticipating that this could happen, the teams included bi-lingual interviewers (persons with a fluent command of Spanish and Aymara or Quechua).

INFORMATION PROCESSING

Quantitative Information

The desk critique of the completed questionnaires was done parallel to the field work, so as to correct errors by way of a re-interview or a new one in the community.

Six persons worked in the desk critique, trained for a period of three days on the study's objectives, the correct filling of the questionnaires and the existing correlation between different questions. This team worked under the lead of Architect Reynolds Rajas and Engineer Hug Arrival.

In this manner, the questionnaires were critiqued as soon as the field work was completed.

After the desk critique took place, the same team revised the consistency of the whole of the codes for the local institutions in sections II and III of the questionnaire. Once this consistency was confirmed, the team proceeded to codify the 1,000 questionnaires.

At the same time, the functioning of the (data entry program) was tried and five transcribers in charge of filling the data base were trained for three days on the characteristics of the questionnaire and the data base.

Once the critique and the codification were completed, the phase of transcribing was started. The work of the transcribers is under the lead of Engineer Hugo Arévalo.

Qualitative Information

Non-comparative systematization. The qualitative information was processed in the following steps:

1. First, a report was prepared per community, based on the qualitative information gathered by way of the focal groups, the group interviews with community leaders, the community descriptive guide and some in-depth additional interviews. (This comprises more or less four hundred pages; approximately 10 pages for each of the 40 communities included in the study.)
2. Second, reports were prepared for each municipality, to systematize the qualitative information from the in-depth interviews with municipal authorities, supracommunal grassroots organizations' leaders, and employees of NGOs.
3. Specific reports are also prepared on each of the eight successful projects studied in each municipality.
4. In the same manner, the answers of the community leaders systematized in order to translate them in numeric formalization.

This process was handled by the same researchers that gathered the qualitative information in the municipalities.

Comparative systematization. For the compared systematization of the qualitative information, two double-entry each matrixes were prepared, considering two levels of analysis: the municipal level and the community level.

1. Municipal Matrix of Comparison of Results

The comparison of results will be made through the matrix, identifying “the behavior” of social capital according to the five general variables of the study:

1. Inventory of grassroots organizations and local institutions.

The role of social capital in the provision of services.

2. The relationships within the social capital, of social capital and the population, and of social capital and the institutions of the State, on a local level (municipality), as well as regional (Prefecture) and national (Central Government and Development Funds).
3. Factors related to context: historic, economic and cultural, that strengthen or weaken social capital in each municipality, and their role in the provision of services (local development).
4. The role of social capital in the implementation of successful projects.

In this comparison matrix at the municipal level, social capital is understood as the combined efforts of grassroots organizations and civil society's local institutions (NGOs, Churches, international cooperation).

This matrix will take special care in identifying the influence of the State in the structuring of social capital. A typology will be constructed for this purpose, based on the following criteria:

- The degree of state presence in the municipality: What is the composition and reaction of social capital to a greater or lesser presence of the State in the local sphere?
- The type of state-municipal administration.
- The degree of legitimacy of the state/municipal administration among the leaders of grassroots organizations and local institutions.

2. Comparison of Results Community Matrix

In the community matrix, the unit of analysis will be the community, not the municipality. For this, as can be seen in the matrix mentioned, the communities in each municipality will be classified according to the degree of strength of the grassroots organizations in each community: high, medium, and low.

In order to classify the communities by degree of strength of their grassroots organizations, the following criteria will be used:

- The regularity of operation of the grassroots organizations. Are we dealing with organizations that work without interruptions? (high regularity), or are they organizations that show interruptions in their operations? (low regularity).

- Intensity of action. Are they organizations that have intensive activities? (high intensity), or do not have intensive activities? (low intensity).
- Legitimacy. Are they organizations that are seen as legitimate by the population, as seen by their results, or their cultural and symbolic significance? (high legitimacy), or are they organizations with little or no legitimacy or summoning power? (low legitimacy).

Those communities in which the majority of the grassroots organizations fulfill the three criteria in a satisfactory manner: high regularity, high intensity of action, and high legitimacy, will be classified as communities with high organizational strength. Those communities in which the majority of the grassroots organizations only fulfill two of the criteria, will be classified as communities with medium organizational strength. Finally, those communities in which the majority of the grassroots organizations only fulfill one of the criteria, or do not fulfill either of the three criteria, will be classified as having low organizational strength.

Once the communities have been classified according to these criteria, all of the communities can then be analyzed following the variables of the matrix.

EVALUATION

A general appraisal of the work shows us that the design of the investigation, the preparation of the instruments, as well as the planning of the field work, have been relatively adequate to the reality in which Bolivia finds itself, at this moment.

This adequacy has allowed the gathering of information relevant to the object of study: the role of social capital in local development.

What has specially allowed the required gathering of information has been the pertinent spatial delimitation of the study: the municipality. In effect, upon the approval of the Law of Popular Participation in 1994, it is no longer possible to understand local development in the rural provinces, outside the new reality of social interaction comprised by the 311 urban-rural municipalities of Bolivia. Popular Participation and its sphere of application: the municipality.

In Sinergia's field work experience, it has been observed that this new reality (the municipality with resources and responsibilities) has modified the mode of interaction of the diverse social actors, in local development.

Nevertheless, it is necessary to point out some elements that could be improved in future studies:

- The present study has selected Municipalities which, based on some organizational and municipal management indicators, the experts considered were relatively “successful” in the application of the Law of Popular Participation. This is to say that, there is information on social capital in places where this social capital is playing an important role in local development. But there is no information on those municipalities where the application of the Law presents problems, and where social capital is still weak. Future studies must contemplate this type of municipality for more comparative richness.
- The study was designed to study “effective projects” of social intervention. Nevertheless, the field work showed that a study of “effective programs” affords more and better information on the role of social capital at the municipal level. A study of programs in general, rather than of particular projects, allows an identification of certain tendencies that are, otherwise, not perceived.
- The design made special emphasis on the in-depth interviews, particularly with municipal authorities. Nevertheless, the field work showed that the richer information was obtained from interviewees who may not be formally considered authorities, but who have a broad knowledge of the dynamics of local development. In the future, this type of key informants and “local experts” should be treated with greater emphasis in the design of the studies.
- The design gave scant importance to in-depth interviews with key community informants. Rather, the group interview of community leaders was privileged. It would have been more useful if, in place of these group interviews, the leaders would have been interviewed separately and individually, in order to get a better grasp of their opinions and views.
- Section II of the questionnaire for heads of households (Inventory of Local Institutions where at least one member of the household participates) was found to be unnecessarily long. This section was designed in a way that it was up to the interviewer to classify the type of local institution as he/she made the interview. This made the interview process very complex and long. The classification could have been made later, using the codes for different types of local institutions, to save time and improve the quality of the rest of the information.
- Whereas, the questionnaire gave an unnecessary extra length to the inventory of local institutions, it gave insufficient space to the trust in local institutions in section III. There is only one question in this section on this topic, passing directly to identify the manner by which these institutions are supporting in the provision of basic services. The field work showed, through the qualitative work, that the degree of legitimacy of local institutions is very important to determine, on the one hand, their strength and, on the other, their role in local development. This essential aspect has been almost omitted completely in the quantitative study.

- Section IV on socio-economic indicators, does not seem to be in accordance with the objectives of the study: identify the role of social capital in the provision of services to households. From its length and detail with which this section dealt, it looked as another study to obtain a socio-economic and stratification diagnosis. Although it is possible to correlate the level of participation in local institutions and the degree of community stratification, we believe that such a broad number of socio-economic indicators make the correlation more difficult, rather than facilitating it.
- The qualitative instruments directed at the communities (Focal Group Guidelines and Guidelines for Group Interviews), do not stress the topic of motivations for participation, or not, in certain local institutions. It is advisable that this topic be analyzed with more detail because of its importance to the study.

On the format for the data base, we have two observations:

- Having the data base structured in eight different files made the process of transcribing more difficult by slowing it down. At the same time, this separation of the different sections of the questionnaire, did not allow the elaboration of electronic control mechanisms between questions and from one section of the questionnaire to another.
- The need to open new codes after the critique of all the questionnaires, delayed the transcription of the data, because small adjustments to the data entry had to be made.