





Approaches and Methodologies for Socio-Economic Surveys

October 2017

Balochistan Rural Development and Community Empowerment Programme [2017 – 2022]

RURAL SUPPORT PROGRAMMES NETWORK









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Acronyms and Abbreviations

BRDCEP Balochistan Rural Development and Community Empowerment Programme

BRSP Balochistan Rural Support Programme
CAPI Computer Assisted Personal Interviews

CO Community Organisation

ERS Expected Results
EU European Union

GoB Government of Balochistan H&H Hulla & Human Dynamics

HCR Head Count Ratio

LSO Local Support Organisation M&E Monitoring and Evaluation

NRSP National Rural Support Programme

OPHI Oxford Poverty & Human Development Initiative

PFM Public Finance Management

PSC Poverty Scorecard

RCTs Randomised Control Trials

RDD Regression Discontinuity Design
RSPN Rural Support Programmes Network

RSPs Rural Support Programmes

SDPI Sustainable Development Policy Institute

SES Socio-Economic Surveys
TA Technical Assistance

UC Union Council

UNDP United Nations Development Programme

VO Village Organisation

1. Overview and Introduction

1.1. About the BRDCEP

The grant component of the five-year Balochistan Rural Development and Community Empowerment Programme (BRDCEP) is being implemented by three implementing partners, namely RSPN, NRSP and BRSP in 249 Union Councils of aforementioned eight districts of Balochistan. The programme focuses on empowering citizens and communities and providing them with the means to implement community-driven socio-economic development interventions. It will also amplify their voice and capability to influence public policy decision-making through active engagement with local authorities for quality, inclusive, and equitable service delivery, and civic-oversight.

The EU has also engaged the services of Hulla & Human Dynamics (H&H), an Austrian company, to enable the Government of Balochistan to foster an enabling environment for strengthening the capacities of local government/authorities to manage and involve communities in the statutory local public sector planning, financing, and implementation processes. The Programme also has a Public Finance Management (PFM) component, which will work closely with H&H to assist the Government of Balochistan to cost and fund the community-led development policy framework. Clearly defined fiscal and regulatory frameworks, budgetary processes and commitments will be reflected in a multiannual budgetary framework and defined institutional arrangements.

Under BRDCEP, 1.9 million Pakistani citizens of 300,000 poor rural households in 249 union councils will be mobilised and organised into a network of people's own institutions: 19,129 Community Organisations (Cos); 3,103 Village Organisations (VOs); 249 Local Support Organisations (LSOs) and 31 LSO Networks at tehsil level and eight at district level. RSPs then will provide support to improve the lives and livelihoods of the organised households, as well as to foster linkages between the community institutions and local government to improve local basic service delivery. The poverty scorecard data-sets help the policy makers and programme stakeholders on achievement against the intended impact indicators of BRDCEP i.e. 1) 25% of the targeted poor households see an improvement in their incomes and 2) 40% of the households graduate from the lowest (0-11 score) to upper poverty scorecard band levels.

The agreement between the EU and RSPN has been signed and the RPSN BRDCEP component is operational from June 30, 2017 and will be concluded on June 30, 2022. The RSPN's role involves facilitating implementation of the programme through partner RSPs by ensuring quality control, standardization of procedures, developing a common M&E framework, baseline approaches, documentation, responding appropriately to lessons learnt and providing value-added strategic backing where required. RSPN will also aim at wider dissemination of the lessons learnt through evidence-based advocacy with stakeholders and the media to scale up successful development approaches.

1.2. Programme Objectives

Following are the key objectives of the BRDCEP programme:

a) To empower citizens and communities and provide them with means enabling them to implement community-driven socio-economic development interventions, an increased voice and capability to influence public policy decision making through active engagement with local authorities for quality, inclusive, and equitable service delivery, and civic-oversight.

b) To foster an enabling environment for strengthening the capacities of local authorities to manage and involve communities in the statutory processes of the local public sector planning, financing and implementation process.

These objectives will be achieved through the following four Expected Results (ERs):

Expected Result 1.1	Establishment and empowerment of a three-tiered participative system of federated community organisations at community, village and union council levels capable of development needs identification & prioritisation, development planning, resource mobilisation, execution and operation & maintenance of community infrastructures
Expected Result 1.2	Increased capacity of citizens, communities and marginalised groups, particularly women, to assert their rights and hold local authorities accountable by engaging them in joint participatory development planning and execution for a more relevant and efficient public service delivery
Expected Result 1.3	Improved access of communities, particularly women and marginalised groups, to quality public services and benefit from climate-resilient community infrastructures and productive assets planned, implemented and maintained jointly with local authorities
Expected Result 1.4	Increased number of poor community members, particularly women and marginalised groups, are engaged in income generating activities
Expected Result 1.5	Experiences on the ground are assessed and disseminated in order to inspire the design of the building blocks of a Local Development Policy framework
Expected Result 1.6	Gender inequality reduced through mainstreaming the outcome recommendations from the gender analysis by EU TA in the BRDCEP-BRSP & NRSP components
Expected Result 1.7	Citizens and community institutions are sensitized on cross cutting thematic areas and integrated the cross cutting themes in preparation of the local development plans including PFM
Expected Result 1.8	Improved capacity of elected members, local government authorities' staff, and officials of the line departments to involve communities in planning, coresourcing and managing local development activities

2. Socio-Economic Survey Development Process

A consultative approach was adopted with the aim of developing a survey that is based on shared expectations and joint ownership. The process started with a desk review of the existing surveys of RSPN, BRDCEP documents including, the programme logframe, RSPs proposals, grant agreements between EU and RSPs, and the action document was the part of financing agreement of BRDCEP signed between EU and Government of Pakistan.

This was followed by various consultative meetings with the senior M&E staff members of BRDCEP partners RSPs and their focal persons for the BRDCEP and the Technical Advisor for BRDCEP research and M&E from University of Mannheim, Germany, Dr. Andreas Landmann. His input on the baseline methodologies and approaches and sampling methodology were incorporated. This final document is a product of these consultations held during the months of September and October 2017.

3. Socio-Economic Surveys Approach

3.1. Purpose of the Socio-Economic Surveys

The baseline, midline and end-line Socio-Economic Surveys (SES) are part of the overall accountability and learning purpose of the M&E component of the BRDCEP. The purpose and objectives of the SES are outlined as:

- a) Estimate the change in the income, sources of income, asset ownership, incidence, depth and severity of poverty and associated social characteristics of the poor (households) in the targeted programme districts.
- b) Estimate the change in targeted poor households' access to and use of basic social and public services, such as access to water and sanitation, education, health, civil acts registration, etc.

3.2. Approach of the Socio-Economic Survey (SES)

RSPN is developing a common methodology, indicators, data collection tools and guidelines for analysis and reporting to ensure the standardisation across two RSPs' programme districts.

The implementing RSPs will outsource the baseline, midline and end-line surveys to third-party consulting firms as per their procurement policies and rules to ensure independence in the overall SES evaluation design. Given the nature of the programme, it is not possible to conduct Randomised Control Trials (RCT) or any other approach involving a deliberate control group; therefore the SES will only be able to measure the overall developmental change over the baseline, i.e. before, midterm and after approach will be adopted. Other options may include utilising individuals who chose not to participate in social mobilisation as an internal control group at the midline and end-line phase. Controlling for different characteristics of participants versus non-participants, e.g. via matching techniques will be necessary. Another possibility is to analyse the effect of different program components (not everybody will receive the same intervention package), essentially using a similar matching process as for participants versus non-participants. For components that use Poverty Scorecard (PSC) based targeting, it will even be possible to use a Regression Discontinuity Design (RDD) and obtain credible impact estimates. All these option can be explored at the conclusion of the programme interventions in the end-line survey given that these scenarios exist at the mid and end of the programme once all the interventions are implemented.

The baseline will be conducted before the start of programme interventions (in 2017-18), midline in year 2020 and end-line after the completion of all programme interventions as per the programme timeline (in 2022).

The sample size must be sufficient and at random to draw conclusions that is representative of the BRDCEP- programme districts. The data and analysis is to be presented in a way that is disaggregated by gender, poverty and districts. To achieve the three specific objectives of the SES outlined above, the survey data will be collected from the same sample households with separate modules to estimate each objective.

4. Methodology of Socio-Economic Surveys

4.1. Methodology and Design of Survey

The surveys will mainly use quantitative methods and include qualitative information and analysis wherever possible. Due to programmatic limitation the design of the assessment will be limited to

measure overall development impact in the programme area using a before, midlevel and after intervention design. The bellow-mentioned Table 1 presents a summary of the objectives, key indicators, tools and survey methods for data collection.

Objectives	Key Indicators	Methods	Objectives	
Estimate the change in	- Demographic	- Estimate the change	- Demographic	
the income, source of	information (age,	in the income, source	information (age,	
income, asset	education status,	of income, asset	education status,	
ownership, incidence,	health status, work	ownership, incidence,	health status, work	
depth and severity of	status of household	depth and severity of	status of household	
poverty, with	members)	poverty, with	members)	
associated social		associated social		
characteristics of the		characteristics of the		
poor people		poor people		
(households) in		(households) in		
programme targeted		programme targeted		
districts.		districts.		
Estimated the change	- Availability, use and	- Sample household	-Household questioner	
in targeted poor	sources of household	(adult member)	on access and use of	
households' access to	facilities (water,	interviews using	public services	
and use of basic social	sanitation, fuel, etc.)	quantitative methods	- Village questionnaire	
public services, such		- Public facilities access	on availability and	
as access to water and	- Availability, access	and use survey	functionality of public	
sanitation, education,	and use of public	- Satisfaction with the	services.	
health, civil acts	facilities (education,	quality and access to		
registration, etc.	health, sanitation, civil	services received		
	acts registration etc.)			

4.2. Sample Framework

4.2.1 Sample Size Determination

The power and sample size calculation follows from the evaluation objective formulated above. We intend to measure the change of several key indicators over time precisely enough to confirm a significant trend. We thereby take the following objectives as given:

- The sample share from each district should be roughly proportional to their number of Union Councils (see description of sampling below), but we set a lower bound for the sample size in each district to ensure sufficient power in district wise analyses.
- Within the lowest sampling stage (the revenue village), about 50 households should be sampled in order to maximize cost-effectiveness of the survey logistics.
- Analyses should result in sufficient precision when doing them by district
- Per district we want to be able to detect changes in indicators of roughly 20% relative to the baseline level. For extremely poor, we expect even higher effects.

Given that we want to evaluate changes over time, we need to compute sample sizes using paired samples. Note that observations can be expected to be correlated over time. Differencing out these common error components over time should result in lower standard errors. At the same time, there might be time-specific effects that are correlated within the village level. This should again increase standard errors compared to conventional levels. Combining both effects in power calculations is not trivial, but we believe that in our setting correlation of measurements over time should be at least as relevant as (time-specific) correlation within villages. In practice, we will therefore ignore both within village correlation and correlation over time and proceed with a simple version of the

power calculations. We hence use the Stata command power twoproportions (command for binary variables).

The power calculation presented in Table 2 suggests that at least 361 observations per district should be obtained in order to reach an acceptable precision per district, thus a minimum sample of 400 households in each district will be taken. Those will suffice to detect significant changes of about ten percentage points or even less. Note that the precision for analyses on the overall level will of course be higher (Table 3).

Table 2: Power Calculations by district

	Poverty	EXTREME Poverty		
	HEADCOUNT	HEADCOUNT		
Mean at Baseline	0.71	0.52		
MDES	0.142	0.104		
MDES / BSL Mean	20%	20%		
N	179	361		

Note: Power 80%, level of significance 5%. The outcome variables are defined at Using UNDP/OPHI's multidimensional framework (http://www.ophi.org.uk/policy/multidimensional-poverty-index/). Poverty rated from the eight target districts are taken from 2015-16 District level Clustered Deprivation data analysis (by Arif – SDPI) and averaged for an approximate baseline (BSL) mean. MDES = Minimum Detectable Effect Size.

Table 3: Power Calculations overall

	POVERTY HEADCOUNT	EXTREME POVERTY HEADCOUNT
MEAN AT BASELINE	0.71	0.52
N	4,400	4,400
MDES	0.0275	0.0299
MDES / BSL MEAN	4%	6%

Note: Power 80%, level of significance 5%. The outcome variables are defined at Using UNDP/OPHI's multidimensional framework (http://www.ophi.org.uk/policy/multidimensional-poverty-index/). Poverty rated from the eight target districts are taken from 2015-16 District level Clustered Deprivation data analysis (by Arif – SDPI) and averaged for an approximate baseline (BSL) mean. MDES = Minimum Detectable Effect Size.

4.2.2 Sample Selection Process

Universe: All rural union councils within the eight targeted districts of (Jhal Magsi, Khuzdar, Killa Abdullah, Loralai, Pishin, Washuk, Zhob and Kech/Turbat) of Balochistan are considered as the universe of this survey. Urban union councils are totally excluded as the programme will be implemented in rural union councils.

4.2.3. Sample Selection Strategy

In each district a three stage sampling will be used.

Stage 1 - Selection of union councils:

•In districts where the total numbers of union councils are up-to 40 - two union councils will be selected at random. Where the total numbers of union councils are between 40 to 50, three union councils will be selected at random, and finally where total union councils number is more than 50 then four union councils will be selected. This guarantees that districts are represented roughly proportional to their number of union councils.

Stage 2 - Selection of Revenue Villages:

 Within each selected union council, four revenue villages will be selected at random.

Stage 3 - Selection of Households:

• A fixed number of 50 households will be selected from each sampled revenue village. Within the sampled villages all the households will be listed based on the poverty score band of below 23 score and rest. An equal proportion of sample will be selected on random from each category.

The following table presents the total number of UCs, Revenue Villages, households and corresponding number of samples. The same sampling plan will be repeated in the follow up survey at the end of the programme.

Table 5: Household Selection Break-up

RSP	District	No. of Tehsils/ Sub- divisions	Total No. of Union Councils	No. of Rev. Villages	Total Estimated Households 2016-17	No. of Sample UC	No. of Sample Rev. Villages	No. of Sample Households
BRSP	Jhal Magsi	2	12	111	23,415	2	8	400
	Khuzdar	7	40	1,448	72,181	3	12	600
	Killa Abdullah	4	36	354	62,263	3	12	600
	Loralai	2	36	616	43,969	3	12	600
	Pishin	5	53	448	90,770	4	16	800
	Washuk	5	10	331	26,534	2	8	400
	Zhob	2	24	250	35,092	2	8	400
NRSP	Kech	4	38	368	66,795	3	12	600
	Grand Total	31	249	3,926	421,019	22	88	4,400

The union councils will be randomly sample by the University of Mannheim, Germany using an objective approach by using the above sampling methodology.

4.3. Survey Instruments

4.3.1 Household Questionnaire

To achieve the three objectives of the survey, the questionnaire will have three distinct modules.

Module I: Household Income and poverty

Structured questionnaires will be used containing information on socio-economic characteristics of the sample households. This module of the questionnaire will include the following content:

- Age, education, profession of respondent;
- Demographic composition of household (age and gender distribution);
- Work status of household members (by age and gender);
- Educational achievement of adults (by age and gender) including any technical/vocational skills training;
- Schooling of children (by age and gender);
- Health status of household members (by age and gender);
- Household income with sources of income;
- Food consumption (by major commodities on a weekly basis);
- Household expenditure on different needs;
- Number and value of household assets (consumer durables, productive, and housing);
- Value of loans taken from informal and formal sources use of loans for different purposes (production, consumption, etc.);
- Household debt (loans outstanding at present);
- Membership in any existing CO (duration, savings, etc.) and its benefits;
- Poverty scorecard indicators.

Module II: Availability, accessibility and use of public sector social and economic services

The following contents will be included in this module:

- Housing facilities (house structure, drinking water and sources, drainage, electricity, fuel, etc.);
- Availability, access and use of irrigation water;
- Availability, access (including, but not limited to state of building and facilities, expertise of teachers etc.) and use of education facilities;
- Availability, access and use of health facilities;
- Availability, access and use agriculture extension services;
- Availability, access and use of civil act registration services (such as birth, death, marriage, CNIC, and voter registrations);
- Identification and perceptions of major problems at the household and village levels by men and women:
- Level of satisfaction with the quality and access to public sector services received.

4.3.2 Village Questionnaire

A separate village level questionnaire for each sample village will also be filled and this will include the following content:

- Availability and functionality of physical infrastructure;
- Availability and functionality economic and social services;
- Village prices;
- Data on VOs and COs (where applicable);

4.4. Analysis Plan for Baseline Survey

The baseline survey will have two purposes. First, it will provide the current situation and profile of sample households in the targeted district. Second, it will set a bench mark of the key indicators for the BRDCEP's Logframe to measure the change at the end of the programme. The analysis of change can only be done after the follow up survey thus the baseline results will mostly focus on descriptive statistics with analysis of poverty.

Descriptive Statistics: based on the household questionnaire and indicators identified in the above-descriptive statistics will included the following sections:

- Socio-Economic Profile of Households
- Status of households access and use of public social sector services

- Status of availability and functionality of public social sector facilities available in sample villages and Union Councils

Poverty Analysis: The poverty analysis will include the following measure of poverty:

Incidence of Poverty: To calculate the incidence of poverty the commonly used measure of absolute poverty in developing countries, namely Head Count Ratio (HCR) - the proportion of the households/population with income per capita below the national poverty line defined by the Government of Pakistan is proposed. The poverty line income is the income level needed to meet basic needs. These basic needs can include simply a basket of food (providing a certain level of daily energy) or food with other goods that are regarded necessary for human existence.

The depth and severity of (income) poverty: This will be measured by using the following methods.

- Poverty gap ratio is the sum of income gap ratios of the population below the poverty line divided by the population of the poor:
 - PGR = $1/n \Sigma[(z-yi)/z]$, where z is the poverty line income, yi is the income of each poor person (indexed by i $\in (1,...,q)$) and n is the total population (poor and non-poor). PGR is an index of the income transfer required to get every poor person out of poverty.
- Severity of poverty takes into account the distribution of income among the poor and is measured by the squared proportionate poverty gap ratio: $SP = 1/n \ \Sigma[(z-y1/z)2 + (z-y2/z)2 + (z-y3/z)2 + + (z-yq/z)2], \ where z is the poverty line income level, y1 to yq is the individual income level of the q poor persons. n is the total population (poor and non-poor).$

4.5. Suggested Table of Contents for the baseline report

The following table of content for the baseline survey report is suggested. However, this will be fine-tuned after the analysis of the survey data.

Executive Summary (1-2 Pages)

- 1. Introduction
- 2. Background of the EU-funded BRDCEP
- 3. Data Source and Methodology of Baseline Survey
- 3.1. Objective of the Survey
- 3.2. Evaluation approach
- 3.3. Sampling strategy and Survey Instruments
- 3.4. Survey Limitations
- 4. Short Profile of the District
- 4.1. Availability and functionality of Public Social Sector Services disaggregated
- 4.2. Access and use of Public Social Sector Services by Households
- 5. Socio Economic Profile of Households in the District
- 5.1. Demographic structure of households and work status of households members
- 5.2. Adult literacy and schooling of children
- 5.3. State of health and physical environment
- 5.4. Household income: sources, distribution, and poverty

- 5.5. Household expenditure
- 5.6. Household assets: value and distribution
- 5.7. Household loans: amount, sources and uses
- 5.8. Household debt
- 5.9. Perceptions of problems segregated by male and female respondent
- 6. Conclusion and recommendations of the baseline survey
- 7. Methodology and plan for follow up Survey
- 8. Annexes
- 8.1. Terms of Reference
- 8.2. Data collection tools used in the baseline survey
- 8.3. Summary Statistics

5. Implementation of the Surveys

The surveys will be done by third-party consulting firms. The RSPs will hire consulting firms through competitive bidding process as per the EU procurement guidelines and/or as per their procurement policy manual and guidelines.

5.1. Role of the third party firm

The consulting firm will be responsible for data collection, training of data collection team, pretesting of data collection tools, develop manual for data collection team, data analysis and writing the survey reports. The data collection will be done through Computer Assisted Personal Interviews (CAPI) i.e. Tablet computers with customised software.

5.2. Role of RSPs

NRSP and BRSP will hire the services of consulting firm and facilitate them in undertaking the data collection exercise in their respective programme districts. The facilitation will be limited to link the consulting firm data collection teams to the sample villages and households.

5.3. Role of RSPN and University of Mannheim

RSPN with technical support from the University of Mannheim Germany has designed the survey methodology and survey tools. RSPN M&E team will also participate in the training of consulting firm's data collection team, participate in the consulting firm selection process and review the baseline and end-line survey reports and provide their input.