

Draft Terms of Reference for End-line Survey Consultant

A. Background

1. Bhutan is a mountainous and landlocked country where the majority of people live in remote villages without roads and, therefore, little access to health and educational facilities, markets, financial institutions and other development benefits. In some parts of the country, particularly in the eastern region, people walk several hours to reach the nearest road-head or the market. Farm produce has to be carried on horse-back or on human backs or heads. This is a disincentive to the farmers to grow more food, as it is not possible to market farm produce. This reduces the income-earning opportunities for the rural poor, exacerbating their poverty.

2. The Road Network Project (RNP), financed by the Asian Development Bank (ADB), was approved in 2005. Its objective is to improve transport efficiency on the trunk road network and expand accessibility in rural areas, which will contribute both to expanding economic opportunities and reducing poverty. The government of Bhutan requested ADB for assistance for farm roads to support geogs¹ in which these feeder roads are being constructed. The Japan Fund for Poverty Reduction (JFPR) project supported in further improving access for remote rural communities by providing farm roads to connect them to feeder roads being constructed under the RNP.

3. The objective of the JFPR project is to provide improved and sustainable access to economic and social services in the project area, leading to improved livelihoods and reduced poverty. In order to achieve the objective, the JFPR project supported the formation of road-users' groups for routine maintenance of the farm roads constructed under the project, in addition to the construction of the farm roads. The support included training for beneficiary communities and geog staff, and formulating road-maintenance plans. The project also assisted in providing small marketing infrastructure and equipment to the subsistence poor. The project further trained and supported communities to enable and empower them to access new technical and economic opportunities, such as government extension services and financial services.

4. The project has five components; (i) Component A: Developing selected farm roads; (ii) Component B: Institutionalize community management and maintenance of farm roads; (iii) Component C: Provide small marketing infrastructure and equipment for the subsistence poor, (iv) Component D: Improve skills of poor farmers to access financial and technical services, and (v) Component E: Grant management, monitoring and evaluation.

5. The project constructed two farm roads, directly benefiting approximately eight villages and 300 beneficiaries. The project farm roads are (a) Phegpari - Thungkhar Farm Road: 14 km, in Thrimshing Geog, Trashigang Dzongkhag and (b) Jungley- Bongo-

¹ A geog is a group of villages forming an administrative unit (block) within a dzongkhag (district) in Bhutan.

Phatshuma Farm Road: 11.2 km, in Bong Geog, Chukha Dzongkhag. The implementing agency of the project is the Department of Agriculture (DOA).

6. An exercise in impact evaluation will be carried out in coordination with the ADB's Small-Scale Capacity Development Technical Assistance (S-CDTA) for Impact Evaluation of Selected Project in South Asia (Approved April 2010). This involves completion of both baseline and end-line surveys carefully developed for this purpose as described in section B below.

B. Scope of Work

7. The end-line survey consultant is expected to develop household and community questionnaires appropriate for quantitative impact evaluation, and implement the survey in the field (must refer the baseline survey questionnaire). All survey instruments should be based on a thorough review of relevant literature and existing questionnaires, such as the Bhutan Living Standard Survey (BLSS), Demographic and Health Surveys (DHS), or Multiple Indicator Cluster Surveys (MICS). The end-line survey should, therefore, be designed to capture not only project outputs (e.g. roads built, user groups formed) and outcomes (e.g. market prices, agricultural productivity, access to markets and services, travel times and travel costs) but also impacts/final welfare outcomes (e.g. income/expenditure, health and women's empowerment).

8. The consultant is also expected to produce an end-line survey report as specified below. This should provide a thorough overview of the socio-economic situation in the surveyed areas and should be able to assess impact of the project.

9. The Consultant must refer the Methodology described under Section 3 of the Baseline Report. The section describes the evaluation questions, methodology, approaches, etc. It is essential that the project impact assessment through this End-line Survey is in accordance with the methodology envisaged under the Baseline Survey.

C. Consultant's Personnel

1. Experience and qualifications of personnel

10. The Consultant shall provide an end-line survey team comprising of qualified specialists with duties and responsibilities described in this Terms of Reference and with satisfactory experience in designing and implementing quantitative field surveys in a rural setting. The Consultant shall prepare its own detailed organization and methodology in its Technical Proposal such that they fulfill the general requirements described here.

11. In addition to the key personnel described below the consultant will identify support staff and a team of field survey enumerators as specified in section E (para. 14) of the TOR. The field enumerators should preferably be 50 percent male and 50 percent female.

12. All key personnel are expected to have or develop a good understanding of impact evaluation concepts and approaches.

2. Key Personnel

13. The end-line survey team shall comprise of a survey design specialist, a quantitative data analyst, and a field supervisor. Either of these people will also act as a Team Leader and the number of person months will be adjusted accordingly.

Team Leader (0.5 months additional to either of the below): The Team Leader should hold a graduate degree in a relevant field with a minimum of 5 years of experience with household survey design, household survey implementation and qualitative survey methods. She or he should have substantial experience working on rural development, and in-depth knowledge of socio-economic conditions in rural Bhutan. Good knowledge of quantitative data analysis as well as impact evaluation concepts and methods is an advantage.

Survey design specialist (1 month): The survey design specialist should hold a graduate degree in a relevant field and have at least five years of experience with socio-economic household design and community-level survey design. She or he should be experienced in designing different types of surveys, and experience with design or implementation of surveys, such as the Living Standard Measurement Survey (LSMS), Demographic and Health Surveys (DHS), or Multiple Indicator Cluster Surveys (MICS), will be an asset. She or he should similarly have experience in designing or undertaking qualitative field surveys.

Quantitative Data Analyst (0.75 months): The data analyst should hold a graduate degree in economics, statistics or a related field and have at least three years of experience with quantitative data analysis. Good command of software, such as Stata, SAS or SPSS, is required.

Field supervisor (1.2 months): The field supervisor should hold a graduate degree in a relevant field as well as substantial practical experience with design and implementation of both quantitative and qualitative surveys in rural Bhutan.

D. Duration of Engagement

14. The duration of the consultancy is **105 days** for literature review, baseline survey, questionnaire design, pilot testing of questionnaires in the field, enumerator training, field survey, data cleaning, data analysis and report writing. See also section H (Time Frame) below.

E. Consultant's Work Plan

15. The consultant's proposal shall include: a) Proposed structure and content of household questionnaire including key variables to be used for measuring outputs,

outcomes and impacts; b) proposed structure and content of community questionnaire; c) discussion of key challenges involved in questionnaire design for impact evaluation; d) list of proposed relevant literature; e) overview of proposed support personnel, such as field enumerators and data cleaners. The questionnaire should be designed to enable to compare findings of end-line survey with baseline findings.

F. Basis of Consultant's contract

16. The consultant shall work under the guidance of consultants hired under the ADB's S-CDTA for questionnaire design and training of enumerators. While the bulk of questionnaire and qualitative survey development will be undertaken by the end-line survey consultant, the final content and structure of the questionnaires will be decided upon in coordination with the DOA and the ADB Consultant. Payment shall be made on the lump sum basis.

G. Reporting

17. The consultant shall keep full records relating to all aspects of the work.

a) Outputs

The consultant shall provide the following:

- (i) Household questionnaire
- (ii) Geog questionnaire
- (iii) Draft end-line report, three hard copies and one soft copy on CD
- (iv) Final End-line Report, three hard copies and one soft copy on CD
- (v) All information and database (raw and analyzed) on CD

b) Contents

The final report shall include, but not be limited to, the following:

1. Theoretical framework:

Overview and discussion of the impact of farm roads on rural livelihoods and welfare. This should be rooted in a thorough literature review of relevant development economics and related literature review of existing impact evaluations of rural roads. The framework should lay out the causal chain leading from inputs to impact. The comparisons should be made with reference to the literature reviews during the baseline and the actual ground realities.

2. Qualitative analysis:

Also based on review of relevant literature, a description of local conditions (cultural, social, socio-economic or other) which affected the project impact or potential heterogeneity in outcomes or impacts. This will also be based on

the review of the theoretical frameworks (identified in the baseline), from the survey questionnaires, and other ground observations, etc.

3. Quantitative analysis:

3.1. Overview of respondent characteristics by treatment and control areas, including whether any statistically significant differences.

3.2. Analysis of outcome and impact indicators by treatment and control areas.

3.3. Analysis of heterogeneous distribution of outcome and impact indicators.

H. Time Frame

18. The assignment will be carried out over the course of **three and half months**. Literature review, survey design, enumerator training and pilot testing should be completed within **one and half months**. The draft report should be completed within **three months** and the final report by **three and half months**.

I. Clients Input and Counterpart Personnel

(a) Services, facilities and property to be made available to the Consultant by the Client: N/A

(b) Professional and support counterpart personnel to be assigned by the Client to the Consultant's team: Some guidance shall be provided under ADB's Capacity Development Technical Assistance for the design of survey questionnaires; and provide feedbacks on the results and reports of the Consultant

J. Client will provide the following inputs, project data and reports to facilitate preparation of the Proposals: (list/ specify/ attach. If none, state N/A)

(a) Baseline Survey Report

(b) All data collected during the baseline survey ; and