RWSSP: Technical Advisory Note 1.8
Terms of Reference for a Technical Service Provider

Introduction

A feasibility study determines optional solutions and cost of a water supply. This allows NSA to justify budget estimates and implementation. In the event that the NSA does not have an employed technical / engineer, it may be necessary to sub-contract or employ a temporary technical service provider (TSP). The following TAN attempts to provide the NSA with the important background information for consideration before employing unknown entities to represent the organisation. TSPs have the potential to behave inappropriately, perform differently to expectations and can have damaging effect to the reputation of the NSA. The TSP should be aware of the community's right to participate in the study, and their right to make decisions based on the assessments of the TSP. The NSA must facilitate a community lead feasibility study.

Stakeholders

Before ToR discussions take place, it is useful to reflect on the differing perspectives of the stakeholders in the whole project. The TSP has technical and reporting skills with which to offer a service and make profit, the NSA has access to resources which can facilitate a sustainable rural water supply, the community has the right to participate and determine its own development and the District Administration will be keenly interested to know of infrastructure developments within its boundaries. It is a combination of decisions based on these perspectives which will ensure a sustainable outcome. The feasibility study is merely the beginning of this process, and its methodology will be important in shaping subsequent steps and results. The following specific tasks are ToR guidelines.

Specific tasks

1. Assessment

- Community profile
- Community map sketch
- Water sources and water use

Which water sources are used for which water uses. Include important information such as seasonal yields availability, distances, elevations, depths, flow rate or re-charge rate in litres per second, turbidity of the water source Investigate whether the turbidity changes seasonally or after local or regional changes in weather. Also investigate possible transmission routes of contamination, and record incidences of reported water related diseases, etc

This photograph shows a local traditional well that was assessed during a feasibility study. It was used solely for drinking water. and local reported of high incidence of diarrhoea in young children.

It is useful at the assessment stage to confirm available community resources, such as labour, materials and transport which may reduce overall costs of proposed solutions.

2. Solutions

It is likely that the community will have one or a number of preferred solutions, apart from the TSPs professional opinion. These must be taken into account when proposing the feasibility of different options.

a. Option(s)

Description of water supply which could be one, or a combination of. river filtration channels, gravity-fed and hydro ram pump reticulation systems, numbers of water points, shallow and deep wells, shallow and deep well hand pumps, rain harvesting. Explain which water source and type of supply will provide drinking and cooking water, bathing, utensil washing and laundry. Give expected flow rates, etc.

materials, transport, labour, supervision, operation, maintenance and training of members of the community.

b. Total cost
breakdown into materials, transport, supervision, maintenance, training, etc. citing potential community resources which may off-set the costs

3. Recommendation
This is possibly the TSPs only opportunity to give a personal opinion. If it differs from what the community were expecting, reasons would have to be given as to why the community's preferred choice is not the same as the TSP recommendation.

4. Annexes
- Site locations of proposed water supply solutions including village water points and distribution.
- Detailed design, including sketches and diagrams of individual components within the design, indicating measurements in km, m and mm where appropriate. The designs should be appropriate and recognizable for use by construction supervisors and tradesmen.
- Bill of quantities including materials sourced from within the community or from PNG regional or national commercial material suppliers. No materials should be directly sourced from outside of PNG, but must be permanently available within the PNG hardware supply sector.
- Accurate costing of materials making distinction between community sourced materials and commercially supplied materials.

5. Time-frame
The time-frame of the technical service provider is to be agreed with the NSA field staff, to ensure that data is recorded using as much community participation as possible.

6. Associated Costs of TSP
- Flat rate for completed outputs
- Travel costs
- Per diem
- Accommodation
- Equipment hire

7. Payment details
- Flat rate will be paid when the agreed ouputs are presented and deemed satisfactory to the NSA
- On presentation of receipts for agreed associated costs
- Per diem paid prior to travel

Concluding Comments

It is possible that the TSP will not supervise the works. In which case a new TSP or newly employed engineer will want to double-check the feasibility designs. The community is likely to have pre-conceptions and expectations at the implementation stage, and it is prudent to confirm the communities acceptance and decision to proceed. It is equally relevant to present the options again, to confirm continued community participation and take every opportunity to involve the women in decision-making.

This is why it is important that the TSP avoids imposing ideas or solutions at the feasibility stage that do not originate from the community. The funding will already have been approved by the donor, and extra modifications to the final design will not be funded. This has potential to cause conflict between the NSA and the community, thus reducing sustainability.

It can be argued that the NSA should guide the TSP at every stage through the feasibility study, as it may well be necessary to do one or two PRA tools in the village to collect data.

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