

Criteria for Financing Rehabilitation of Water Supplies in COWASH Phase III

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1 INTRODUCTION

COWASH Phase I and II have been financing the major rehabilitation of old water points (mainly hand dug wells and springs) which were damaged due to various reasons. The main aim of the rehabilitation is to ensure the sustainability of water schemes and maintain the benefits of the users of the water points. The rehabilitation has raised some issues or problems such as:

- Water supply maintenance (preventive and corrective) is normally to be managed and finance by the community. Anyhow, rehabilitation in some cases has replaced the maintenance and therefore finance has come from the CMP grants. The boundary between rehabilitation and maintenance has not been clear enough.
- There has been lack of identifying the clear damages of the schemes and performing the appropriate rehabilitation measures (activities). Less attention has been given to the appraisal of rehabilitation works. Clear systematic way of rehabilitation needs identification and documentation has been missing.
- There has been confusion in reporting the rehabilitation outcomes. It has been a confusion of the inclusion of the number of rehabilitation beneficiaries into the water coverage. In some cases the rehabilitated water supply has already been included into the coverage calculation and therefore rehabilitation is not contributing to the increase of the coverage but is actually only maintaining the existing coverage.

Due to these reasons it is important prepare clear criteria on how the rehabilitation of water schemes is going to be effectively managed and implemented, how the outcomes of the rehabilitation are going to be defined and reported in COWASH Phase III.

2 DEFINITION WATER SCHEME REHABILITATION IN COWASH PHASE III

The rehabilitation of water supply schemes put in Outcome 3 of Output 3 of COWASH phase III project document states the following.

"Rehabilitation is one of the means to improve the functionality by ensuring that poorly functioning schemes can be taken into use again, and to improve access to improved water supply. The support for rehabilitation is based on WASHCO requests for support, which will be evaluated and/or appraised before making a decision to support the rehabilitation. The program will only support major rehabilitation works that are

beyond the community's financial and technical capacity to implement. Rehabilitation of existing piped schemes using CMP approach can also be considered".

It is recommended that the following internationally accepted definition of rehabilitation will apply in COWASH Phase III:

"Rehabilitation refers to a water supply system that is non-functional (dysfunctional) or poorly functional, despite being within the design life (normally 15 years) and required rehabilitating or replacing (parts of the water supply system). In addition, the level of work required to make it functional should be beyond the amount that could be collected through an effective community O&M fund or beyond the technical capacity of the community and therefore require external assistance."

This implies that maintenance works (preventive and corrective) which can be financially and technically handled by communities are not included in the rehabilitation of water schemes. Water schemes which are or will be completely abandoned due to end of design life or some natural causes such as well drying need full replacement or relocation (in the case of wells) are treated as replacement/reconstruction/relocation and like any new project and not as rehabilitation.

3 CRITERIA

The developed rehabilitation criteria are expected to have the following advantages and objectives:-

- To establish clearly defined boundaries between rehabilitation, maintenance, reconstruction, relocation and replacement
- To establish clear systematic way of rehabilitation needs identification or appraisal and documentation
- To clarify the rehabilitation outcomes and their reporting
- To clarify the role and responsibility of community financing in the maintenance of water schemes

3.1 WATER SCHEMES REHABILITATION CRITERIA

3.1.1 General criteria

- Focus in rehabilitation should be given to hand dug wells and on spot springs or springs with collection chamber
- Depending on the feasibility and comparative advantage of rehabilitation rural piped schemes can also be included
- Both community and institutional water schemes can be rehabilitated. In case of schools support from education sector GEQIP (General Education Quality Improvement

Programme), which gives funds to PTAs for projects identified by the schools, shall be seen as an alternative option. The woreda education office has to be consulted and if GEQIP funds are available COWASH will not allocate rehabilitation budget

- Focus on schemes which have served more than 5 years
- Give priority to schemes which have not got rehabilitation chance before
- Give priority for schemes which are excluded from coverage
- Give priority for schemes which can serve minimum of 50 households. Schemes serving less than 50 households will be considered with strong justification.
- Give priority for schemes which have started/better practice of collecting of users' fee/tariff. This is an incentive for those communities and a disincentive for those who have not started the collection
- Give priority to those schemes which rehabilitation need is identified as a result of Water Safety Planning (WSP) exercise carried out by the WASHCO

3.1.2 Types of rehabilitation works supported/not supported for each type of technology

The following will be supported through COWASH rehabilitation funds:

3.1.2.1 Hand dug wells

- Complete replacement of non-functioning hand pump
- Deepening of the well to increase water column, if technically possible
- Re-construction of highly damaged/deeply cracked/collapsed well head and drainage ditch

The following works in hand dug wells are not to be supported as rehabilitation by COWASH (it does not matter what has caused the damage)

- Replacing parts of a hand pump
- Strengthening of loosened hand pump stand
- Repair of cracks observed in well head & drainage ditch
- Fencing of well
- Repair of the fence door
- Repair of the wash basin
- Repair of the drainage
- Catchment improvements and catchment protection
- Etc...

3.1.2.2 On spot springs/springs with collection chamber

The following will be supported through COWASH rehabilitation funds:

- Repair of already leaking spring capping structure, which clearly reduces the flow and which requires knowledge and skills not available in the community
- Repair of already leaking collection chamber, which clearly reduces the flow and which requires knowledge and skills not available in the community
- Changing of leaking pipes due to major breakage or changing of old aged pipes and which clearly reduces the flow and which requires knowledge and skills not available in the community.
- Re-construction of fully or partially damaged spring capping structure, collection chamber, public taps and other components due various reasons.

The following works/activities in springs are not to be supported as rehabilitation by COWASH (it does not matter what has caused the damage)

- Maintenance of leaking pipe joints,
- Changing/maintenance of faucets and valves,
- Plastering/maintenance of non-leaking spring capping structure & collection chamber,
- Repair of drainage ditches,
- Repair of manhole boxes,
- Repair of cattle through,
- Repair of wash basin,
- Repair of shower,
- Repair of irrigation part,
- Fencing of the spring capping structure & collection chamber,
- Repair of door,
- Catchment improvements and catchment protection.

3.1.2.3 Rehabilitation of rural piped scheme from gravity springs

- The rehabilitation activities to be supported by COWASH are almost the same as that of springs with collection chamber with the major difference may be on the size of the spring capping structure, capacity of the collection chamber/reservoir, the diameters and lengths of pipes, the number of public taps and the like.

3.1.2.4 Rehabilitation of rural piped scheme from motorized/non-gravity springs

- Rehabilitation of civil works
 - The rehabilitation activities of the civil works to be supported by COWASH are almost the same as that of springs with collection chamber with the major difference may be on the size of the collection chamber, capacity of the collection chamber/reservoir, the diameters and lengths of pipes, the number of public taps and the like.

- Rehabilitation of electro-mechanical works
 - Maintenance of the surface/submersible pump if it stopped proper functioning due to major problem.
 - Changing of the surface pump either due to old age or due to need for higher pumping capacity (yield and pumping head) if the problems put the scheme at risk in giving the required service to users.
 - Maintenance of the diesel driven generator if it stopped proper functioning due to major problem.
 - Maintenance of the solar or wind power if it stopped proper functioning due to major problem.
 - Changing of the diesel driven generator either due to old age or due to need for higher power generator if the problems put the scheme at risk in giving the required service to users.
 - Changing of the diesel driven generator to transformer (to use power from the national grid).

3.1.2.5 Rehabilitation of rural piped scheme from deep well source

- Rehabilitation of civil works
 - The rehabilitation activities of the civil works to be supported by COWASH are almost the same as that of springs with collection chamber with the major difference may be on the capacity of the collection chamber/reservoir, the diameters and lengths of pipes, the number of public taps and the like.
- Rehabilitation of the deep well
 - Cleaning and development of the well if needed.
 - Drilling of a new well if the exiting well is dry or additional well is needed due to increased demand.
- Rehabilitation of electro-mechanical works
 - Maintenance of the submersible pump if it stopped proper functioning due to major problem.
 - Changing of the submersible pump either due to old age or due to need for higher pumping capacity (yield and pumping head) if the problems put the scheme at risk in giving the required service to users.
 - Maintenance of the diesel driven generator if it stopped proper functioning due to major problem.
 - Maintenance of the solar or wind power if it stopped proper functioning due to major problem.
 - Changing of the diesel driven generator either due to old age or due to need for higher power generator if the problems put the scheme at risk in giving the required service to users.
 - Changing of the diesel driven generator to transformer (to use power from the national grid).

3.2 SPECIFIC APPRAISAL CRITERIA

In addition to the types of damages in each type of water scheme types or technology options recommended for rehabilitation as shown above, the following appraisal criteria are put to identify water scheme rehabilitation needs.

These criteria are not to replace the appraisal criteria which have been used in CMP before. Some are just a reminder that those criteria are needed to be considered critically to lay a good ground to increase the ownership and the readiness of the community to sustain the schemes once rehabilitated.

- **Community Contribution:** The newly set appraisal criteria is the minimum 20% of rehabilitation cost as community contribution (in kind and cash) which replaces the old 15% minimum requirement
- **Upfront cash contribution:** An upfront cash contribution for O&M amounting one year O&M fund need for the specific technology to be rehabilitated. The amount should not be less than Birr 1,000.
- **The willingness** of the community (promise) to cover the yearly O&M fund including some amount to be saved for future rehabilitation works.
- **The inclusion** of all community members as users of the scheme to be rehabilitated has to be checked unless there is a justifiable reason such as lack of willingness of a household to use the scheme.

NB. Depending on the situation the region or woreda can put additional criteria which will contribute to the effective implementation of the rehabilitations or already designed better criteria can be included and used if any.

During the field appraisal some sort of rehabilitation need assessment to identify the types of defects of each scheme component and the types of rehabilitation activities needed and their cost (in terms of community contribution and CMP grant) has to be made. The assessment has to highly involve communities and will be a good starting point for the rehabilitation of a scheme and improvements to O&M management of the scheme. The rehabilitation need assessment format is attached in Annex A.

4 REPORTING OF REHABILITATED SCHEMES

As stated in the introduction part one problem related to rehabilitation practice of the previous phases was the reporting of the beneficiaries of the rehabilitated schemes. Before deciding in the rehabilitation the woreda water office has to check whether the scheme is included in the water supply coverage of the woreda or not and do the following during reporting.

- For those schemes where the users of the schemes are already included in coverage calculation, do not report the number of users of the scheme or if you report you have to clearly report that it has already been included in coverage to avoid double counting of users.

- For the scheme which has not been included in coverage calculation due to the damage/non- functioning of the scheme needing rehabilitation, report the number of users of the scheme and the woreda to include in the coverage calculation.
- In case of institutions (schools and health facilities) the report should clearly show whether the rehabilitated scheme is already included in the coverage or not and if not included, include the rehabilitated scheme in the coverage.

Annex A - Rehabilitation need assessment format (will be part of the field appraisal form)

- 1) Name and type of the water scheme _____
- 2) Year of construction of the scheme _____
- 3) Types of scheme component, defects observed and recommended rehabilitation works for each component?
 - 3.1) Name of scheme component _____
 - Defects of scheme component _____
 - Rehabilitation work for the component _____
 - 3.2) Name of scheme component _____
 - Defects of scheme component _____
 - Rehabilitation work for the component _____
 - 3.3) Name of scheme component _____
 - Defects of scheme component _____
 - Rehabilitation work for the component _____
 - 3.4) Name of scheme component _____
 - Defects of scheme component _____
 - Rehabilitation work for the component _____
 - 3.5) Name of scheme component _____
 - Defects of scheme component _____
 - Rehabilitation work for the component _____
 - 3.6) Name of scheme component _____
 - Defects of scheme component _____
 - Rehabilitation work for the component _____
4. If the scheme is recommended for rehabilitation by COWASH based on the field appraisal criteria, please estimate the labor cost (community & CMP contribution), material cost (community & CMP contribution including the list & quantity of materials), equipment and WASHCO administration cost required for the rehabilitation and fill in the appraisal format **(the appraisal format in use also for new constructions)**.