Final Report

Construction of Flood Washed Houses in District Swat (Upper)

Funded by
Ministry of Cooperation
Federal Republic of Germany

Implemented by
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1. Description of the Project

The floods of July 2010 and torrential rains severely damaged almost all sorts of infrastructure particularly the residential structures in UC Madyan and Bashigram of District Swat (Upper). High damages were faced by those which were located along the river and stream side. Most of the population of the flood hit area is living below poverty level. Agriculture and livestock rearing is the main source of livelihood of the locals. In order to support the flood affected people in reconstruction of their houses, CARAVAN approached GIZ after conducting assessment in the targeted union councils. GIZ, after analyzing the situation, granted an amount of Rs. 3,899 Million to reconstruct 30 houses that have been fully damaged by the Jul 2010 Floods. As most of the selected affectees were living in shelters, some had covered their loose structures with temporary CGI sheets, tarpaulins, bushes and raw logs etc. Some of the people were having their land pieces but were moved to the structural strengths are.

The area has been found secure during the implementation. Harsh weather conditions and unexpected snowfall and rains created hurdles in transportation of material and construction throughout the project period. very low temperature also delayed the construction work thus Chemical Admixtures were used to complete the project within the stipulated period. Under the project 30 families were provided with quality construction material and skilled labor under the technical supervision of engineers and field supervisors.

The erected house structure was designed as per the standards communicated by PaRRSA after the disaster occurred in the region, where the structural strenghts are maintained through engineering technics and sufficient construction material that might be strong enough for expected flow pressures and seismic shocks in the target zone.

Living almost in shelters the affectees were extremely exposed to various vulnerabilities including cold weather, seasonal diseases and natural calamities. Moreover the flood affectees were unable to find suitable buildings to accommodate their families after their habitats are washed away during the floods. The people were unable to reconstruct their houses with their post flood lesser economic resources.
Majority of the flood hit area are skilled and unskilled daily wagers with least opportunities. After having permanent residential building comprising of one room, sanitation facility and a small kitchen, the beneficiaries are very satisfied and feeling comfort. The community members and beneficiaries were found cooperative and contributed according the agreement signed with each selected family.

**Progress verses targets**

The project was commenced as per work plan but was disrupted due to harsh weather. As per past experience of CARAVAN, the project has been implemented in close coordination with community based organizations and community development groups. Up to 85% of the population gathered to help in identification of beneficiaries for the project, meanwhile criteria developed jointly with the communities in Participatory Reflection and Action exercise.

As result of consultation with GIZ team in Swat, CARAVAN conducted the following activities.

**Assessment in the communities**

Before submission of the proposal, CARAVAN conducted assessment in the proposed project area to identify that families whose houses were damaged due to July 2010 floods. 43 families with damaged houses were identified with the help of local activists and community based organizations in the target communities.

Social Organizers, Project Engineer and Sub Engineers of CARAVAN visited all the houses and developed BOQs for all the eligible beneficiaries. After Assessment, the list was shared with GIZ and District Coordination Officer of Swat. The identified beneficiaries were visited by GIZ team. After completion of verification process by the competent authorities, the list of finally selected beneficiaries was shared with the concerned communities. Following is the detail of identified beneficiaries.

**Consultation meeting with communities**

Before execution of the project, concept of house construction was shared with the communities to know about the perception of proposed target communities regarding the proposed intervention. The people welcomed the idea and they contributed at least 10% of the total project cost. Communities were mobilized to cooperate with women and aged headed houses who were unable to contribute in unskilled labor, material, unloading and transport construction material to their houses.
Technical feasibilities
Separate technical feasibility for each house was developed and shared with the house owner and GIZ. After proper approval the design was handed over to field supervisor for immediate compliance. Each beneficiary was visited by the CARAVAN team to ensure that their plots technically feasible for construction of house as per the approved design. Before initiating the construction work the identified owners were advised for leveling and protecting the uneven plots where required. All factors including size of room, weather, rains, snow fall and earthquake have been considered while constructing the rooms.

Experimental Cases
The idea of the house was tested first to know the impact of support and acceptance ratio within the target communities. CARAVAN constructed 01 model house for a flood affected family in the village Badalai UC Madyan of Upper Swat. The support enabled each selected family to reconstruct at least one room house that included a washroom facility with its proper sewage system consisting of a Man Hole/a Septic Tank and soakage pit. The sewerage system constructed with good quality material ensuring a water tight underground channel with risk free contamination to rain water sources. Under the model, cost of construction material and wages of skilled labour were provided to the flood affected selected families. The family utilized the funds for construction of one room house. After completion of test cases communities were invited to see the house build of Reinforced frame structured, properly integrated with confined masonry that was intervally anchored with Steel bars both vertically and horizontally to the columns and beams. The community appreciated the quality of the house and declaring the structure is according to their needs they requested for further identification of deserving beneficiaries.

Formation of Project team
In order to implement the project in its true sense, well experienced staff was hired for this project. As per recruitment policy of CARAVAN, all the positions were advertised in a local newspaper and the most eligible professionals were selected for the project. An interview committee constituted which finalized the selection. The following staff was hired to run the project.

1. Project Manager/Project Engineer 01 Person
2. Sub Engineers 02 Persons
3. Social Organizers 02 Persons
4. Finance Assistant 01 Person
5. Warehouse Assistant 01 Person
6. Watchman 01 Person
7. M&E Officer 25% Time
8. Manager Operation 10% Time
9. Manager Finance 5% Time
10. Logistic Manager 5% Time
11. Finance Assistant 01 Person

Orientation of Project Team
The selected team members were fully oriented regarding the project idea, implementation methodology, monitoring, social mobilization of communities, selection process and criteria and coordination with government line agencies. The session took place in CARAVAN’s Swat Office, the manager operation CARAVAN facilitated the session. However technical aspects of the project were discussed by Project Engineer in detail.
Re-Assessment of project area:
Approval of the proposal took little bit long time. Thus it was necessary to re-assess the situation for ensuring overlapping of activities as other humanitarian organizations were also working in the same area. Those who received support for the same activity were excluded from the project and new eligible families were included.

Establishment of warehouse
In order to keep the project inputs i.e. construction material safe, the GIZ pre-established warehouse was rented at Bagh Dherai from where the material transported to each household. The warehouse managed by Logistic assistant/warehouse supervisor who was responsible to collect the required quantity of material from sub-engineers on the field, forward a supply order to giz, receive and store the material after quality check by the engineers, keep the record of material that was distributed to the households as per the approved design & BoQ.

Signing of Agreement with each beneficiary
As per our experiment, separate agreements were signed with each beneficiary in the presence of community members and witnesses to clarify the roles and responsibility of each party. The agreements had information about the support provided by CARAVAN under GIZ funding while house owner's contributions were also mentioned.

Construction of Houses
Work on the construction of 30 houses started and the progress monitored through the work supervisor. The project provided support to 30 families whose houses were swept away during the floods.

Monitoring
The project activities monitored by Monitoring & Evaluation Officer based at CARAVAN's Swat office. This position contributed 25% of its time to this project. For 25% time of this position charged form GIZ as mentioned in the budget approved by GIZ. Apart from monitoring officer, the project engineer, sub-engineers and work supervisors monitored the daily work on each house while work in each union council simultaneously.

GIZ team also paid monitoring visits to project sites continuously and shared their observations with CARAVAN management. Following the technical and managerial guidelines CARAVAN management issued advices to the field team which increased capacity of the field staff and quality control was ensured.

Reporting
The actual progress against planning has been shared frequently with GIZ monitoring and technical staff. Daily/weekly updates of pending, in progress and completed house were shared with GIZ team on regular basis.

Coordination with other stakeholders
CARAVAN regularly organized consultation meetings with the concerned stakeholders. District government was continuously consulted District Coordination Officer (DCO) Swat, Sub Divisional Magistrate (SDM). The DCO, SDM and District Revenue Officer (DRO) was oriented and consulted during identification of the beneficiaries and selection. The project design and implementation methodology was shared with all the government officials in black and white. The DCO issued NOC for
the implementation of the project while other staff members were directed for cooperation.

2. Outputs, Outcomes, Impact and Risks of the Project

2.1 Outputs achieved

2.1.1 30 Numbers of Houses constructed through provision of Construction Material and Skilled Labour, the cost was Rs. 203065/- Per Household while the services charges for material transportation, technical supervision and quality assurance the cost was Rs. 129999/- so the total cost is PKRs. 333064/- Per Household.

2.2 Outcomes achieved (Use of Outputs)

2.2.1 30 families including 84 Male, 125 female and 31 children have been facilitated to construct one Room house for their residence with a Kitchen and Toilet including its Manhole/Septic Tank and Soakage Pit. Collectively 240 persons have been provided with permanent residence to ensure their safety from cold and harsh weather. The project has provided opportunity to 4200 individuals to work as skilled and unskilled labours.

2.2.2 The project has also constructed 02 model houses in Malakand and Upper Swat and 02 models of repair kits in district Malakand. The idea of model house and repair kits was matured and on the basis of these models, CARAVAN implemented House Construction Project in Upper Swat.

2.3 Impact of project

Impact of the project is visible in the project area as 30 families have been facilitated to construct their houses and get permanent residential building (at least one room including a kitchen and toilet with its enhanced environment friendly mechanism). The project has minimized vulnerability of July 2010 flood affected families as they were exposed to natural calamities including rains, snow and sun heat. The selected beneficiaries were not able to reconstruct their houses thus they were facing social and cultural problems. On one hand the project has enabled the target population to reconstruct their houses while on the other hand it has provided opportunity to locals to work as skilled and unskilled labour and earn their livelihood within the locality.

2.3.1 Impact on beneficiaries in general

Every individual beneficiary has been provided with support up to Rs. 333064/- which is equilliant to their 56 Months regular income. The money injected by the project was supposed to be generated by the beneficiary families in the absence of any external support. Thus the project has provided an opportunity to the locals to save the granted amount and spent it on their other expenses including but not limited to health, education, utilities and food commodities.

2.3.2 Impact on women

Female segment of the rural population always suffered at higher level whenever there is any natural or manmade disaster. The project has facilitated the females of the target beneficiaries to do household activities inside the building which provides safety from cold and heat. The female are feeling secure as they were living in damaged houses, shelters or tents as their houses were not suitable for residence.
3. Cross Cutting Themes

3.1 Disaster Prevention Measures
CARAVAN management gave special attention to disaster prevention measures while preparing the design and Bill of Quantity for the house. The material used in the house was discussed in detail with the local communities to make the work seismic and weather resistant. The foundations, RCC columns/continuous beams (casted in approved cement mortar ratios) 60 Grade Steel bars anchored with confined masonry of 1500 Psi CMU (Cement Mortar Unit) Hollow Blocks, Precast beams, slab panels and other required material were placed as per the approved drawings that was declared not only up to the needs of the beneficiaries but may remain a sustainable structure against the expected risks. Special attention was given to the quality of overall material particularly precast slabs, precast beams and other roofing material to make sure that enough strength has been given to the building that the roof and walls may not jolt with earthquake and heavy rains. All the material used in the repair kits have been checked by CARAVAN/GIZ technical team while full time sub engineers and work supervisor while project engineer continuously visited the project sites to maintain standards.

3.2 Conflict Prevention Measures
The project was implemented in the flood hit communities of Swat District where some of the humanitarian organizations have provided relief but due to large scale emergency some of the deserving and affected families were left. Thus there was a visible separation between those who have received relief and those who have not received relief. The project focused on unattended beneficiaries and they were encouraged to take part in the project activities. Local social activists played vital role in identification of unattended beneficiaries which resulted in minimization of polarization within the affected communities.

3.3 Impact on environment
The target communities were used to use wooden doors/windows/ventilators/beams/purlins in their structures but the project provided GI-sheets made Doors/windows/ventilators/RCC Precast Beams and slabs to minimize burden on environment. Use of water tight sewerage structures has further contributed to a safe environment as the people of the area are using the natural flow of spring water and streams for their day to day use. The rubbles have been removed from drains which were spread over in the surroundings of target communities and the drainage was blocked which was creating health and environmental issues for the locals.

3.4 Risks

4. Selection of beneficiaries
As mentioned earlier, before submission of the project CARAVAN conducted assessment in the target union councils to find out most deserving communities by holding meetings with community members, social activists and district administration. After selection of communities, door to door assessment was started in the selected communities while District Coordination Officer (DCO) Swat, Sub Divisional Magistrate (SDM) and District Officer Revenue (DOR) Swat was consulted during the beneficiary assessment. District Coordination Officer nominated the SDM as focal person for the project and a list of 30 affected households was handed over. The same was verified on ground by CARAVAN team and the most eligible families were selected.
5. Target Group

5.1 Direct Beneficiaries

<table>
<thead>
<tr>
<th></th>
<th>Nos of Families</th>
<th>No of Individuals</th>
<th>No of Women</th>
<th>No of Men</th>
<th>No of Children (below 16 yrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Badalai</td>
<td>9</td>
<td>63</td>
<td>28</td>
<td>22</td>
<td>13</td>
</tr>
<tr>
<td>Hospital Colony</td>
<td>1</td>
<td>7</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Bela Depo</td>
<td>20</td>
<td>140</td>
<td>63</td>
<td>56</td>
<td>32</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>210</td>
<td>94.5</td>
<td>80.85</td>
<td>46.2</td>
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</tbody>
</table>

5.2 Indirect Beneficiaries

<table>
<thead>
<tr>
<th></th>
<th>Nos of Families</th>
<th>No of Individuals</th>
<th>No of Women</th>
<th>No of Men</th>
<th>No of Children (below 16 yrs)</th>
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</thead>
<tbody>
<tr>
<td>Badalai</td>
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<td>8694</td>
<td>3912</td>
<td>3043</td>
<td>1739</td>
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<tr>
<td>Hospital Colony</td>
<td>138</td>
<td>966</td>
<td>435</td>
<td>338</td>
<td>193</td>
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<tr>
<td>Bela Depo</td>
<td>2760</td>
<td>19320</td>
<td>6762</td>
<td>6762</td>
<td>3864</td>
</tr>
<tr>
<td>Total</td>
<td>4140</td>
<td>28980</td>
<td>13041</td>
<td>10143</td>
<td>5796</td>
</tr>
</tbody>
</table>

1 A direct beneficiary is person, group of persons or organization which is immediately affected by an intervention, and thus directly benefits from its existence (e.g. a farmer who gets access to water for irrigation when an irrigation channel is rehabilitated or a woman who can increase her income after she attended training).

2 An indirect beneficiary is a person, group of persons or organization which is not immediately affected by an intervention, but which benefits indirectly through the overall improvement of the living conditions in the region (e.g. improved availability of food on the market due to an rehabilitated access road in the next village).
The project has provided opportunity to local skilled and unskilled labours to work in the project and earn their livelihood.

5.3 Is there any change in the number of beneficiaries? If yes, why?

6. Monitoring

6.1 How did you monitor the project?

The project activities were monitored by Monitoring & Evaluation Officer based at CARAVAN’s Swat office. This position contributed 25% of its time to this project. For 25% time of this position charged form GIZ as mentioned in the budget approved by GIZ. Apart from monitoring officer, the project engineer, sub-engineers and work supervisors monitored the daily work on each house while work in each union council simultaneously. Following the standard monitoring procedures of CARAVAN, Manager Operations, Manager Finance and Admin and Executive Director CARAVAN surparise visits to the project sites and issued instruction to ensure quality and quanitity.

GIZ team also paid monitoring visits to project sites continuously and shared their observations with CARAVAN management. Following the technical and managerial guidelines, CARAVAN management issued advisable to the field team which increased capacity of the field staff and quality control was ensured.

6.2 What kind of lessons did you learn? Please share it:

(1) In time coordination and understanding of government policies for relief and rehabilitation after each crisis is very necessary to implement such types of project within the stipulated timeframe. This act will minimize risks and will facilitate the government to devise policies in the light of ongoing interventions.

(2) Utilization of local human as well as material resources increase success ratio of any intervention that is carried out by humanitarian organizations for the crisis affected communities.

(3) Proposed Budget sharing directly in the field with the field staff, beneficiaries and the labours is harsh interference from the monitoring teams that causes complications and failures to overcome physical activity and financial management of the partner organization.

(4) Avoiding unfavourable weather in such areas, Construction project can be implemented as per work plan from the month of March.

(5) Material procurement and supply must be on the part of Project Manager to avoid gaps against supply delays and handover to the beneficiary.

6.3 How do you rate the sustainability of the project and why?

The project was based on the real needs of the local communities and is a durable solution to provide permanent residential facilities to the flood affected families. Unavailability of residential buildings is one of the major problems of the flood affected communities thus
they took keen interest in the project and contributed in terms of unskilled human resources and material. In order to ensure proper look after of the reconstructed rooms, CARAVAN has signed agreements with each individual household to take proper care of the same. In this way sustainability of the intervention has been ensured.