

SUCCESS STORY ON IMPROVING WATER AVAILABILITY UPON CONSTRUCTION OF CHECK DAM UNDER FOCUS- RULCHAWM

PROFILE

Activity : Construction of Check Dam (Protection of water source)

Project : FOCUS, District Management Unit-Saitual

Funding : International Fund for Agricultural Development (IFAD)

District : SAITUAL

Amount : Rs 84,000 per unit (3 units per village)

BACKGROUND AND RATIONALE

Rainfall is the primary source of irrigation for agriculture which is the main livelihood of the people of Saitual district. The district observes an average annual rainfall of 312.77 mm (12.31 inches) of precipitation and has 210.65 rainy days (57.71% of the time) annually that feeds the four rivers (Tuivawl, Tuirini, Tui phal, Tui vai) flowing across the district. Most outlets from these rivers are not quite perennial and although water is abundant in quantity during the monsoon season, it parches rather quickly during drier season. They, nevertheless, are the main source for domestic use and for cultivation of crops. The non-availability of timely and adequate water for irrigation is a serious constraint in achieving higher productivity.

Although the total rainfall in Saitual district is often satisfactory, its distribution over time and space is highly uneven. Out of the total rainfall received, higher percentage is wasted due to surface run-off and leaching and only less amount of rainwater remains available for crop use. Therefore, rain water harvesting and water use efficiency are critical for increasing production and productivity. Given the geographical and soil conditions, the most effective method of rainwater harvesting is to collect runoff through construction of small check dams that will enhance water conservation. With this overview, construction of check dams as a means of protection of water source and increasing availability, for crop and household use, remains with no doubt a vital activity.

ACTIVITY INTERVENTION

As a part of activity for Community Conservation Area, construction of Check Dam was implemented under FOCUS by the District Management Unit-Saitual. The activity was thoroughly invested by the technical staffs right from site selection, estimation, planning and construction. The farmers/members of the Farmer Interest Groups (FIGs) also actively took part in all these activities, knowing fully well the impact for their own villages. Rulchawm village received support for 3 units each and depending upon the requirement and land properties, the villages have utilized the support as viewed necessary and appropriate.

- 1) **Site selection:** The location and site were carefully selected by the technical staffs in consultation with the villagers and before installing the check dam, the concerned engineer inspected each of these selected sites.



Fig: Site survey and selection done with proper planning as it is the most crucial step

2) **Construction:** Community participation was the salient feature of the construction and members of the FIGs dedicatedly oversee the construction with regular monitoring from the DMU staffs.



Fig: Active participation of the farmers in construction work



Fig: Regular monitoring by the DMU staffs



Completed works: The constructed check dams were verified by the DMU staffs.



Fig: Depiction of few completed works

OUTCOME/ IMPACT

Several impact and outcome as a result of the successful implementation of the activity

- Check dams constructed visibly reduces water flow velocities in the channels and waterways, during which water were harvested using pipelines or collected in water storage structures.
- The rain water has been checked after construction of the dam and increases the availability of water for irrigation of their farm crops and for domestic use.
- In villages where Rabi season crops could not be cultivated due to unavailability of water during this period, water could be stored from the check dam + storage structures constructed for utilization to raise Rabi crops.
- The amount and period of water availability will be increased, thus increasing the number and continuity of working days across the season.
- The increase in water availability increases water use efficiency.
- As farmers themselves were engaged in the whole process, including women, this inculcates a sense of responsibility and community purpose for the village.
- Check dam prevents silting and thus , help in reducing the augmented height of the lower levels.
- The silt collection can be used in farms all throughout the year as a possible substitute for chemical fertilizers
- It helps in all-around increase fertility of the immediate area and Animal Husbandry can also be facilitated

CONCLUSION

The implementation of 'Construction of Check Dam ' under FOCUS project is therefore, considered a significant success owing to the immense requirement by the villagers and its impact seen just days after the completion of the activity. This results in newly developed interest among farming community as support for such kind was brought upon by funding agencies like IFAD in eliminating several irrigation constraints faced by farmers in Rulchawm village.

SUCCESS STORY ON IMPROVING WATER AVAILABILITY UPON CONSTRUCTION OF CHECK DAM UNDER FOCUS- TUALBUNG

PROFILE

Activity	: Construction of Check Dam (Protection of water source)
Project	: FOCUS, District Management Unit-Saitual
Funding	: International Fund for Agricultural Development (IFAD)
District	: SAITUAL
Amount	: Rs 84,000 per unit (3 units per village)

BACKGROUND AND RATIONALE

Rainfall is the primary source of irrigation for agriculture which is the main livelihood of the people of Saitual district. The district observes an average annual rainfall of 312.77 mm (12.31 inches) of precipitation and has 210.65 rainy days (57.71% of the time) annually that feeds the four rivers (Tuivawl, Tuirini, Tui phal, Tui vai) flowing across the district. Most outlets from these rivers are not quite perennial and although water is abundant in quantity during the monsoon season, it parches rather quickly during drier season. They, nevertheless, are the main source for domestic use and for cultivation of crops. The non-availability of timely and adequate water for irrigation is a serious constraint in achieving higher productivity.

Although the total rainfall in Saitual district is often satisfactory, its distribution over time and space is highly uneven. Out of the total rainfall received, higher percentage is wasted due to surface run-off and leaching and only less amount of rainwater remains available for crop use. Therefore, rain water harvesting and water use efficiency are critical for increasing production and productivity. Given the geographical and soil conditions, the most effective method of rainwater harvesting is to collect run-off through construction of small check dams that will enhance water conservation. With this overview, construction of check dams as a means of protection of water source and increasing availability, for crop and household use, remains with no doubt a vital activity.

ACTIVITY INTERVENTION

As a part of activity for Community Conservation Area, construction of Check Dam was implemented under FOCUS by the District Management Unit-Saitual. The activity was thoroughly invested by the technical staffs right from site selection, estimation, planning and construction. The farmers/members of the Farmer Interest Groups (FIGs) also actively took part in all these activities, knowing fully well the impact for their own villages. Tualbung village received support for 3 units each and depending upon the requirement and land properties, the villages have utilized the support as viewed necessary and appropriate.

- 1) **Site selection:** The location and site were carefully selected by the technical staffs in consultation with the villagers and before installing the check dam, the concerned engineer inspected each of these selected sites.

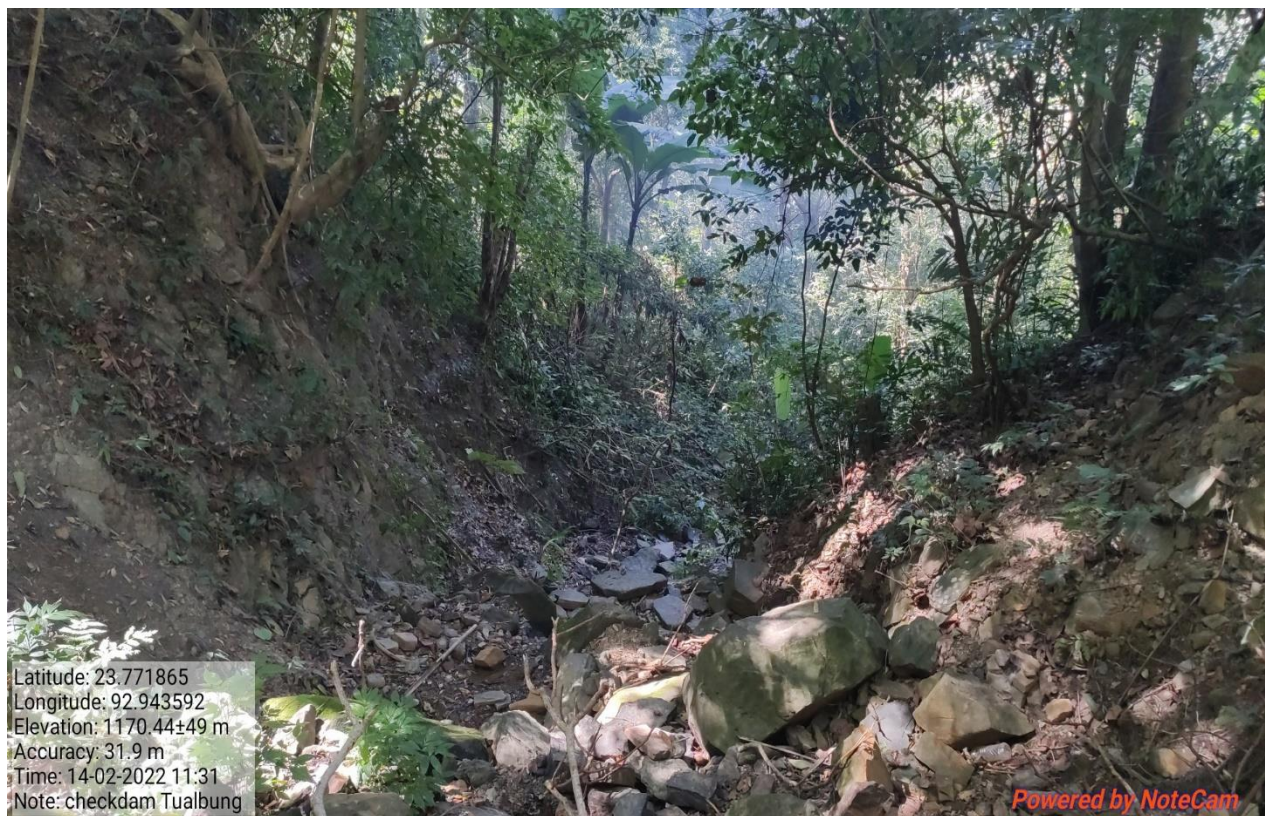


Fig 1: Site survey and selection done with proper planning as it is the most crucial step

2) Construction: Community participation was the salient feature of the construction and members of the FIGs dedicatedly oversee the construction with regular monitoring from the DMU staffs.



Fig 2: Regular monitoring by the DMU Staff during the construction



Fig 3: Active participation of the Community for construction of Check Dam work under CCA FIG.



FIG4: The constructed check dams were verified by the DMU staffs.



Fig: Depiction of few completed works

OUTCOME/ IMPACT

Several impact and outcome as a result of the successful implementation of the activity

- Check dams constructed visibly reduces water flow velocities in the channels and waterways, during which water were harvested using pipelines or collected in water storage structures.
- The rain water has been checked after construction of the dam and increases the availability of water for irrigation of their farm crops and for domestic use.
- In villages where Rabi season crops could not be cultivated due to unavailability of water during this period, water could be stored from the check dam + storage structures constructed for utilization to raise Rabi crops.
- The amount and period of water availability will be increased, thus increasing the number and continuity of working days across the season.
- The increase in water availability increases water use efficiency.
- As farmers themselves were engaged in the whole process, including women, this inculcates a sense of responsibility and community purpose for the village.
- Check dam prevents silting and thus, help in reducing the augmented height of the lower levels.
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CONCLUSION

The implementation of ‘Construction of Check Dam’ under FOCUS project is therefore, considered a significant success owing to the immense requirement by the villagers and its impact seen just days after the completion of the activity. This results in newly developed interest among farming community as support for such kind was brought upon by funding agencies like IFAD in eliminating several irrigation constraints faced by farmers in Tualbung village.