

EXECUTIVE SUMMARY OF IMPACT ASSESSMENT STUDY OF VILLAGE DEVELOPMENT PROGRAMME



Submitted to

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IMPACT ASSESSMENT OF VILLAGE DEVELOPMENT PROGRAMME

Executive Summary:

Bharat Forge Limited (BFL), a company incorporated under the Companies Act 1956, working to improve the social and living conditions of people in and around through its CSR initiative. The CSR initiative is mainly focuses on major areas as Livelihoods, Water, Education, Skill Development, Sport etc. currently in 5 districts in the State of Maharashtra. The BFL along with **Maharashtra Arogya Mandal**, Pune based organization, together implementing village development programme with 5066 families in 12 villages from Ambegaon block of Pune district since 2017. The overall objectives of the programme is to increase access and availability of water, reduce soil erosion and increase farm income, promote plantation and contribute in environmental development, improve access and affordable health facilities to villagers and promote healthy & safe education to children.

AFARM has been involved in conducting assessment of the project. A team of two professionals comprising of Agriculturist & Sociologist conducted the study through review of project documents, progress reports, Household survey, field visits, and interaction with various stakeholders including Community Members, Villagers, Sarpanch & Panchayat Members, School Student & Head Master and team of MAM & BFL etc.

The project area is inhabited by the tribals Mahadeo-Koli and receives about 2000 to 3000 mm of rainfall, though it receives heavy rainfall during rainy season drinking water becomes a severe problem in summer, associated with issue of livelihoods, health, employment & education etc. To address these issues project has planned & implemented activities related to livelihoods, Health, Education & Water as under.

A. Livelihoods Activities: These are activities directly supported & beneficial to individual households in the villages. Such activities are Kitchen Garden, Horticulture Plantation, Land Levelling, Organic Farming and Goat/ Cattle shed Construction.

A-1 Kitchen Garden: Kitchen Garden is promoted almost in all visited project villages, in which a kit of different 12 to 15 vegetable seeds were provided & grown by each family. Almost 98% families has established kitchen garden and received yield/vegetables from it and used for consumption. Each family has received average 1.37 Kg vegetables per day for the period of 3.5 months during monsoon season & saved average Rs 4036/- on purchase of vegetables from Market.

This activity not only serving the need of target families but has added value in their daily diet due to availability and consumption of variety of fresh vegetables. In absence of the Vegetables from Kitchen Garden normally they use 3 to 4 types of local vegetables in their diet, but the activity served the purpose of nutritious & balance diet to the some extent contributing to reduce the malnutrition in Children & Women and improving the health condition.

A-2. Horticulture Plantation:

Project has promoted 5624 Mango fruit (Alfanzo & Keshar varieties) plants across 8 villages covering 1168 families. Of which 2570 plants were planted as block plantation & rests on farm bunds. First year plantation has completed 3 years, average survival percentage of first year fruit plant is good i.e. 63%, whereas 43% plots have been observed 100% survival. The mortality has been filled by beneficiaries itself and are taking proper care. First year plants are about 7 to 8 ft height. None of the Mango plant has started yield now, generally it starts from 4th to 6th year onwards and the economic life of a mango tree exceeds 35 years, this means once it starts bearing fruits will give yields till 30 years. Now at the stage it is difficult to predict yields but at the start of bearing the yield may be as low as 10-20 fruits (2-3 kg) per tree, rising to 50-75 fruits (10-15 kg) in the subsequent years, and to about 500 fruits (100 kg) in its tenth year if care & maintenance is proper.

In short mango plantation will become the good income source to the family in years to come in addition to the ecological conservation.

A-3. Organic Farming:

Organic farming is promoted with 12 farmers in 3 villages in 2020-21 with guidance and suggestions by experts of Komis company team. AFARM team interacted with 2 such farmers where they used compost, Jeevamrut, Neemark & dashparni extract for Potato, Onion & Cucurbit crops. This farming just completed one year, there is no major change in production except improvement in quality & decrease in input costs compared to conventional farming. Normally, it takes 3 years for conversion from conventional to organic if practiced full organic way.

It is suggested that organic Farming may be promoted as group based activity in which farmers should practice it in a contiguous cluster/ area by adopting Participatory Guarantee Scheme (PGS) Certification.

A-4. Land Levelling:

Land leveling activity is implemented to bring waste land into the productive asset and to improve the economic condition of the family in the project villages. This activity is completed in 10 project villages covering 230.8 acre area of 620 families, and most of the families started cultivation after completion of land levelling work. Diversified crops like Paddy, Jawar, Soyabean, Potato, Bean, Onion, Wheat, Gram, Pea, Tomato, Leafy Vegetables, Fodder Crops, Groundnut etc has been started cultivating in the levelled plots. They are cultivating the crops in Kharif, Rabbi as well as in summer season wherever the irrigation facility is available.

It is evident that the farmers could earn on an average net income of Rs 11849/- per acre from the levelled plots. Some of the farmers could earn exceptionally high income by cultivating crops like Onion & Potato. Although land levelling is high investment activity which is giving better returns and contributing to the economic development of families, hence there is more demand for this activity in all villages, may be extended.

A-5. Goat Shed Construction:

Goat shed of size 12 x 10 feet with cement flooring, galvanized sheet roof, four side ventilation in steel fabrication is promoted for capacity of 20 goats, with 10% financial contribution within 31 beneficiary households.

This activity has contributed in reduction of dirty odor, controlled flies and teaks in shed and also reduced infection of family members as it was common previously as they keep Goat in their home or outside the home in open kachha shed. The percentage of health issues has been reduced substantially at family as well as within goats. Also, reduced wastage of fodder and shed cleaning become easier. Reduced the mortality of newly born kids. It is understood during the interaction with beneficiary families that, those who are rearing a unit of 15 to 20 goats, their income has been increased ranging from Rs 15000/- to 35000/- per year.

It is here suggested that regular vaccination including insurance cover should be done to avoid further loss due to seasonal outbreak of diseases. Further, Periodical handholding & check-up through Govt. veterinary doctor & sharing of goat rearing farmers will help to understand the better goat management practices.

B. Health Activity: These activities are mainly implemented for creation of affordable & quick access to remote villagers for opinion & advice of expert doctors.

B-1. Women Cancer Detection Camps:

This activity is organized mainly to make aware tribal women about their health and diagnose health problem and treat them with free medicine. These camps were arranged in five villages in which 485 family members were checked. These are women mostly between 30-60 years age group were provided health checkup services in the camp. All participated women were tested for cancer of which 6 women found positive of cancer and further referred them to Sahyadri hospital for expert opinion in Pune.

During interaction with these women members they added that, they have very poor access for health services, due to organization of camp they saved their time and money, they want this services once in year for all community. They also added, instead of checking only for cancer, there is need for general health checkup of women mainly for gynecological problem. This is good entry level activity in village to build trust with community to increase participation in project activity.

B-2. Tele medicine center:

This is post emergence activity of health checkup camps, started on pilot basis in few villages. *DOORSTEP* is organization outsourced to support clinical set up, medicines, nurse at village level including online opinion of expert doctor from Pune.

Initially nurse is taking primary information of patients and checking Blood pressure, sugar level, weight, temperature and O2 level of patients, thereafter online checking & discussion of patient takes place with expert doctor from Pune, after that expert doctor provides the medical prescription and accordingly the nurse is giving the available medicines to patients.

The assessment team visited in Fadalewadi and Ugalewadi telemedicine center and interacted with staff & nurse including 6 patients and villagers. Due to availability of such clinical services in villages, patients are taking the treatment in time. The villagers replied that, telemedicine clinical services are very useful especially to women and children. They further said that the facility of injection and saline in the center will be necessary. This activity is very useful irrespective of net connectivity issue in some of the villages.

C. Education Activities:

C-1. Nutritional supplements for students of Anaganwadi and primary school:

This activity is initiated in 6 primary schools & 10 Anganwadi in 3 project villages, the objective behind is to supplement the balanced nutrition of students and attract them in school to increase the presence as part of happy education. Project has provided set of peanut laddu and eggs to each student daily as nutritional supplement food.

The quality of peanut laddu was good. The balanced nutrition is important for growth of children at early age group. Peanut laddu are also rich in calcium that helps strengthen bones & help boost the immunity. Eating the peanut laddu & eggs in the regular diet of children helping them to gain the weight & height. It also supports for reducing the malnourishment. Head master also told that, this program benefited to increase daily presence of students in school.

As a result of this activity, students started demanding the peanut laddu and eggs in their home. Earlier students are not eating peanut laddu in home.

Beneficiary Student replied that, they are very happy with food supplements. Now schools are closed due to Covid- 19 lockdown and students are waiting for opening the school. Mothers also happy with this initiatives for students. MAM & BFL needs to continue the activity in primary schools and Anaganwadis.

C-2. School Beautification:

To create happy learning atmosphere in school and develop good educational environment in primary school, school beautification is completed in Anganwadis and primary schools of 8 villages. It includes painting of classroom & passage, painting of playing toys, painting of kitchen shed of school, installation of door & window's, construction of school compound wall & painting, paving blocks etc.

This is good activity and students are studying happily in school. They liked numbering, alphabets with pictures, mathematical calculations, ethical sentences and pictures of fruit, animals and birds and they are observing daily in school. The beautification of toys attract the students to play more. This helps students for clear understanding of words, numeric and nature etc.

Teachers expressed that the students happily attending the schools and also helps in increasing the presence of students in school. They also added that, easy teaching is possible due to beautification of school. The students, teachers and villagers are happy on this initiatives. The Grampanchayat school committee has taken the responsibility of repair and maintenance of the school in future.

C-3. Construction of wall compound:

The earlier wall compound of Numbarwadi was broken due to heavy rainfall. To protect newly planted trees and school amenities from free domestic animal and to avoid unwanted entry of villagers when schools is closed, construction of wall compound is done under the project. The wall compound work was good quality and serving the purpose as expected. The Gram panchayat and school has taken the responsibility of maintenance of wall compound in future.

D. Water Activity: To increase access and availability of water for domestic & agriculture, water related activities like Water pond repairing, Earthen Nala Bund / Check Dam Repairing & construction of Water Tank etc. is considered under project.

D-1. Earthen Nala Bund / Check Dam/ Water Pond Repairing: Under this activity 7 old structures either silted, leaked or defunct due to various reasons were repaired/ deepened, widened through project support. In addition to this works like pitching of main wall, outlet construction etc. also done under the project. Currently all these structures were partially filled with rainwater.

It is evident from the community interaction that the completed works are benefiting community (595 families) at large in terms of i) improvement in ground water table in the wells/ borewells particularly in peak period during Dec to May, ii) Increased area under protective irrigation as well as vegetable cultivation in rabi & summer season, iii) increased drinking water availability to human as well as livestock's. With the increased availability of water, the farmers in the close vicinity of the structures started cultivation of Onion, Potato, Tomato, Garlic, Chilli, summer Bajara, & leafy vegetables.

There is need to organize beneficiary farmers in the form of water users groups who are taking at least direct benefit of it. This will help to take care & maintenance of the structure, an income generation activity like fishery can be initiated as an additional income to users group or GP. Catchment treatment may be taken to avoid repeated siltation in the structure.

D-2. Construction of Drinking Water Supply Tank

To created access and ensure availability of safe drinking water to the village community, activities like construction of storage tank, installation of tap water system, deepening of drinking water well, installation/ repairing of tap water pipeline etc. are completed in 4 villages under the project.

The quality of work done found satisfactory. The community has also contributed partly in the construction (e.g. Rs 20000/- in Chikhali village). The tank capacity is designed by following norms of 40 lit per person per day requirement in rural area. All the visited schemes were found functional and drinking water benefits are reaching to the needy community members.

The activity found most needful as the community specifically women has to fetch drinking water far away from wells / springs throughout year. It is understood that in Chikhali village women & children's were fetching drinking water from well-located

in valley which is 3 km away from village & requires / consume 2 hrs/ day normally and even full day in summer season to fetch the water. This facility has reduced drudgery of women and are more satisfied for creating the access throughout the year and they started concentrating their time & efforts for other domestic / household works.

It is found that common tap model is more useful & durable than individual tap water supply model specifically in this project area. There is need to handover the scheme to respective GP for its care & maintenance, including electricity bill & collection of water charges otherwise it will become the responsibility of MAM / BFL.

D-3. Road Side Plantation:

This activity is planned to increase roadside greenery and restore some ecological diversity including environmental benefits.

Altogether 1250 different tree species were planted along road side, including installation of tree guard. Survival percentage of tree plantation is ranges from 75 to 99% and is very good.

Under severe climatic conditions, selected roadside trees can form wind breaks and shelter belts to protect crops. They can restore some ecological diversity to areas of agricultural monotony. They can be used by bees to produce honey and wax.

At the time of plantation it was decided that respective Gram Panchayat will take care of supervision, gap filling, cleaning, watering etc. but is not happened due to various reason hence it was done through project support. This can be initiated through Gram Panchayat under MGNREGS scheme by providing work to Job card holder families from the village. Benefits under *Shatkoti Vruksha lagwad* schemes of forest dept. may be taken for new road side plantation or Gap filling.

It can be concluded here that the activities included under the all the component are addressing the needs, priorities and aspirations of the target group including women. The project has supported mostly the poor, vulnerable & marginalized families in the villages. Activities implemented are in line with the Govt. development programs & priorities.

Recommendation and Way Forward:

Impact assessment study of Village Development Program leads us to conclude that the development process of individual households is taking place through an implementation of set if interventions. Intervention envisaged and implemented in the given context of the project region is very much appropriate and relevant and proved effective in addressing the livelihood needs of the tribal community. The documented trends further support and strengthen the importance of interventions in aiming for an overall socio-economic development of the project communities.

However some of the areas of improvement are highlighted hereunder

- To ensure long term sustainability of the programme, the focus needs to be shifted to attainment of integrated livelihoods development of community through intensification & integration of interventions.
- There is need to form and strengthen Community Based Organizations, presently there is lack of such CBO's. Formation & capacity building of Farmer Producer Groups/ Common Interest Groups/ self-help group/ Village Organization etc. and involving them in entire project cycle management will lead towards ownership development and to take responsibility after post project.
- Since the project is promoting on-farm & off farm livelihoods within farming community, farmer training & handholding on periodical basis through expert input will play a critical role for ensuring adoption/ replication of new, innovative, and tested agriculture technologies by the farming community. Hence it is recommended that to consider farmers training & knowledge transfer as one of the key areas of future intervention. This will expand the outreach of the project interventions.
- To further strengthen the livelihood component of the project the feasibility of initiation of collective micro-enterprises such as collection & value addition of Hirda, rice processing, nursery, potato processing etc may be explored. The team is in the opinion that such activities may be taken up through women SHG or farmer Groups.
- Since the project interventions are in line with the existing Govt. development programmes, an appropriate strategy for leveraging these programme must be incorporated during next phase.
- The focus has to be shifted from activity base monitoring to impact base monitoring it can be started with identification & setting impact indicators and setting targets for and time lines for the same. Once it is set, baseline may be conducted to track the progress against the preset targets.
- Project Team should be provided with periodical capacity building inputs to strengthen the quality of project implementation.
- To ensure the sustainability of the soil & water conservation activity such as land levelling and desilting of water harvesting structures, such activities need to be implemented by following the ridge to valley approach in a given local micro-watershed / micro catchment in a given drainage system.
- The activity like school beautification should be taken as entry point activity in project village to build the trust of village community and to increase the participation of villagers during next phase/programs.

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