A CASE STUDY ON SHUDDHAGANGA: A PURE DRINKING WATER PROJECT OF SKDRDP

(Shri Kshethra Dharmastala Rural Development Project)

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Abstract: Shri Kshethra Dharmasthala Rural Development Project (SKDRDP) played a vital role in rural reconstruction, agricultural Development, community development and rural development even during last three decades’ era in Karnataka state. It is currently expanding its developmental activities to all the districts of Karnataka. SKDRDP is active with its Community Development Programs throughout the state. Projects are operating in the field of education, health, rural infrastructure and community welfare. This study is done to know the real impact of SKDRDP SHUDDAGANGA PURE WATER PROJECT on the rural mass to uplift the health standards

Index Terms - Community Development, Social Entrepreneurship, Sustainable Development, Rural Infrastructure and Community Welfare.

Introduction:

Rural India is the real India. Real development of India is possible through Rural Development. There are many schemes designed to promote rural growth. The main aim of such schemes is to generate employment opportunities, alleviate poverty by harnessing the available resources. The Government of India along with state governments has implemented many schemes for the basic infrastructure, self-employment, social security, health and sanitation etc. In spite of the serious efforts taken by the Government authorities, rural development has not achieved to the desired level due to many obstacles. Therefore, Social Entrepreneurship as an approach really needed for the sustainable development.

“Grow along with the community “is the real necessity of the day. Many NGO’s are working really hard to uplift the rural poor. Through NGO’s SHG activities are initially confined to internal savings and internal lending, borrowing for consumption purpose. Later on emphasis shifted from consumption credit to investment. At present SHGs are considered as an effective participatory process in development endeavors. SHGs are as a measure of poverty alleviation or enhancing income levels as well as quality of life of the rural mass. Initially NGOs have encouraged the members of SHGs to take up individual enterprises and were induced to avail various Government schemes. It was realized that group enterprise is a possible measure to encourage the initiatives of the Social entrepreneurs aim at generating employment opportunities and alleviating poverty by harnessing the available resources.

Shri Kshethra Dharmasthala Rural Development Project, popularly known as SKDRDP, is a charitable trust promoted by Dr. D. Veerendra Heggade. The SKDRDP is active in various parts of Karnataka State through its Community Development Project, to provide infrastructure support to the villages. The project is participatory in nature where, the local people form an implementation committee, implement the project in a time bound manner with local participation in the form of finance and labour. The Community Projects are concentrated in the field of education, health, creation of community assets, rural infrastructure and community welfare. A focused program for rural development, the Community Development Project, was taken up in 1990 to create and develop rural assets. A wing of SKDRDP, it was launched to assist community efforts for the building of basic infrastructure. SKDRDP staffs motivate rural general public and organizations to indulge in village development activities. Villagers and local organizations, along with the cooperation of the government departments and SKDRDP, develop the basic infrastructure. The funds are utilized to develop basic infrastructures like school building, hospital building, rural veterinary hospitals, anganwadi buildings, drinking water project, rural connecting roads, rural hygiene, youth organization building etc.

Objectives of the Study:
1. To study the extent of participation and benefits derived from the Shuddaganga Project.
2. To know the challenges in the project implementation stage.
3. To know the cost effectiveness in managing the project.
4. To know the Government role in community development programmes.
5. To understand the role of NGO’s in promoting Rural development.
Methodology:
The study is conceptual and descriptive in nature. Data collected from secondary sources like Journals, Magazines, News Paper, Books and other publications.

Community Development Programmes
The Community Projects are concentrated in the field of education, health, creation of community assets, rural infrastructure and community welfare. The various community development programmes are:

Shuddhaganga Project
Sri Kshethra Dharmasthala Rural Development Project (SKDRDP) is implementing Shudhaganga drinking water program in the districts, where Fluoride content is more in water. The program was launched 10 years ago (in 2009). The first Shudhaganga unit was started in Yagati of Kadur taluk in Chikkamagaluru. As a result of this success, now there are 284 Shudhaganga units are working in the state. 200 units including 37 in Chikkamagaluru, 7 in Hassan, 4 in Belgaum, 27 in Chitradurga, 3 in Bellary, 22 in Davangere, one in Anekal, 19 in Koppala, 2 in Raichur, 3 in Kolar, Mysore and Chamarajanagar, and 16 units in Gadag district are providing pure drinking water. In total, water is being supplied from 230 units.

The century-long drinking water problem associated with high fluoride contamination still persists in an alarmingly high number of 14,132 habitations in 19 Indian States, found the Union Health and Family Welfare Ministry. High levels of fluoride contamination affects the teeth and bones and in the long run it leads to symptoms of skeletal fluorosis with abdominal pain, excessive saliva, nausea, vomiting, seizures and muscle spasms. Urging an immediate focus on the Drinking Water and Sanitation to go with the Prime Minister’s “Swachh Bharat” campaign, the health ministry said ensuring the supply of safe drinking water in these habitations will solve the problem. While desert-ridden water scarce state of Rajasthan naturally tops the affected states with the highest number of 7,670 habitations with 48,84,613 people, Telangana comes second with 1,74 habitations of 19,22,783 affected people. Karnataka too has 1,122 habitations followed by Madhya Pradesh with 1,055. Assam, Andhra Pradesh, Bihar, Chhattisgarh, Maharashtra, Odisha, West Bengal and Uttar Pradesh too fall in the category of high fluoride contamination. The standard set by the World Health Organization for fluoride content in drinking water is 1.5 mg per litre, while 0.8 to 1.2 mg per litre will maximize benefits and minimize harmful effects and the environment and chemical form of the drinking water too affects the local levels of fluoride consumption for the body. Several WHO studies in the past have cautioned against high levels of fluoride in drinking water at 1.5 mg per litre or above. It causes pitting of tooth enamel and deposits in bones and very high levels at 10 mg per litre or above leads to the crippling skeletal fluorosis, it warned. The Indian government has long been working on the issue and even started the National Programme for Prevention and Control of Fluorosis in 2008-09, which was merged with the National Rural Health Mission in 2013-14 covering 111 districts so far. Even the Indian Council of Medical Research has taken up the task of tackling the fluorosis.
Slow poison: Residents of Pavagada taluk are ailing due to fluoride contamination

The reports indicate that concentration of harmful chemicals such as nitrate, fluoride, arsenic is beyond limit in 22 of Karnataka’s 30 districts. A doctor says, “People only notice the complications after having consumed the water for decades. Unfortunately, it is too late by then.”

A constant headache, severe pain in the joints and discoloration of teeth. This is what almost every resident of Pavagada complains of. Reason: high fluoride content in the ground water.

Pavagada is one of the taluks in the state that receives the least rainfall. With no river in the vicinity, people are forced to depend on bore well water. With a depleting source that it is, residents have to drill to several hundred feet to be able to reach water. The result – high chloride and fluoride content in the water. Water samples analyzed by the Central Ground Water Board from five taluks (Sira, Gubbi, Madhugiri, Koratagere and Pavagada) in Tumakuru district were found to have higher than normal content of fluoride.

According to a study conducted by NITTE University in 2016, the geographical location and the rocky terrain is what is to be blamed for the presence of excess fluoride content. “The rocks in southern India are rich in fluoride, which forms the major reason for fluoride contamination in groundwater, and the granites in the district of Nalgonda, Andhra Pradesh contain much higher fluoride than the world average fluoride concentration of 810 mg/kg. Moreover, geology, hydrogeology, geochemistry and climate of the area apart from saturating water properties were found to be the associated factors,” reads a report.

The NITTE report states that Pavagada has a population of approximately 50,000. Males constitute 51% of the population and females 49% with an average literacy rate of 67%.

Even as water filters have been installed, residents speak of the innumerable challenges they face to fetch water. For some like Muthyalamma, the concern is distance. With no one at home to help, many feel drinking the fluoride-rich water is an easier option. For others, it is a financial issue. “We have to pay Rs 5 per can of water. I require at least two cans daily for my kitchen needs. That comes up to about Rs 300 a month. I cannot afford it,” says 82-year-old Gowramma as she sieves rice in her house.
Shudhaganga units:

In fact, the program was initiated by SKDRDP President Dr. D Veerendra Heggade after finding out that thousands of people suffer from health issues because of too much fluoride in water. The program is being implemented with the help of Gram Panchayat, Zilla Panchayat officials and public representatives. The processes of family survey, informative programs on the utilization of clean drinking water have been conducted. The program is helping to maintain healthy society by providing pure drinking water. Using these units, members of 33,908 families use around 10, 87,480 liters of pure drinking water.

Shudhaganga is a unique community effort to produce pure drinking water in the villages by purifying the drinking water at source by a process called “reverse osmosis”. A small building sufficient storage tanks for impure and pure water, machinery for purifying the water are the basic requirements of the project. In this plant impure water is taken from the source, purified in the plant and stored in the pure tanks. The users will come and fetch the water in 20-liter jerry cans. The users pay a nominal fee of Rs. 0.10 per liter of water which will be utilized for the maintenance of the plant and day to day service.

Cost of the Program

Each Shudhaganga plant costs approximately Rs 10.00 lakhs for commencement of production. Thereafter a monthly maintenance expenditure of Rs. 20,000 is required. While the installation costs can be sourced from philanthropic institutions and the government maintenance costs have to be reimbursed. For this purpose, a charge of Rs. 0.10 per litre. is collected. In a village if 500 families consume 20 liters. of water everyday Rs. 30,000 is collected every month which will take care of maintenance and servicing. Therefore, this is a participatory program where all partners are joining hands to ensure supply of pure drinking water.

Recent Achievements

<table>
<thead>
<tr>
<th>Shudhaganga units implemented Districts</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total taluk</td>
<td>55</td>
</tr>
<tr>
<td>Total working units</td>
<td>284</td>
</tr>
<tr>
<td>Number of families using Shudhaganga pure water.</td>
<td>42,079</td>
</tr>
<tr>
<td>Daily supply of pure water in liters</td>
<td>8,41,580</td>
</tr>
<tr>
<td>Total grant for Shudhaganga units.</td>
<td>21.89 Crore.</td>
</tr>
<tr>
<td>Total grant for Shudhaganga units from Government Authorities</td>
<td>12.30 Crore.</td>
</tr>
</tbody>
</table>

Other Community development Programmes

1. Grama Kalyana

A focused program for rural development, the Community Development Project, was taken up in 1990 to create and develop rural assets. A wing of SKDRDP, it was launched to assist community efforts for the building of basic infrastructure. The funds are utilized to develop basic infrastructures like school building, hospital building, rural veterinary hospitals, anganwadi buildings, drinking water project, rural connecting roads, rural hygiene, youth organization building etc.

2. Nammuru- Namma Kere

Dharmadhikari Dr. D Veerendra Heggade thinks that it is a responsibility of human being to protect the water sources and handover them to the coming generation. So, Shri Kshethra Dharmasthala Rural Development Project will begin with ‘Nammuru- Namma Kere’, a programme of rejuvenating tanks in association with the locals. In the first phase before the monsoon around 82 tanks of the state were rejuvenated, at an estimated cost of Rs 20 crores. The works like lifting the silt, repairing the surrounding land, road, canals etc. would be implemented under the project. Villagers would share 50% of the total cost.

3. Sujanana Nidhi

SKDRDP has initiated a scholarship scheme named Sujnananidhi to create awareness among the SHG members about the possibilities in technical education and to motivate and assist them to send their children for technical training. Under this scheme a scholarship, every year 2,000 students get monthly Rs.1000 each for technical courses like BE, MBBS, BAMS and BDS. The scholarship is available till the end of the said courses. Similarly, a scholarship of Rs. 400 per month will be available to 6,000 students every year for technical courses like TCH, DPed, BEd, Nursing, ITI and Diploma courses.

4. Hindu Rudrabhoomi

The Hindu Rudrabhoomi Project (development of crematorium) is one such initiative. This unique program serves to complete the last journey of all human beings in a dignified manner. The program supports the local community in renovating existing crematoriums with silicon cremation chambers. Such chambers require as little as 250 kg of firewood to burn bodies, as compared to the 800 kg necessary for conventional firewood burning.

5. Janadeepa

SKDRDP provides financial assistance for the purchase of teaching equipment, sports materials, tables and chairs. Electrification of schools, construction of playgrounds, compound wall construction, repair and renovation of buildings are also supported. Part time teachers are recruited and assigned wherever required to schools deficient in teachers. This has a high success rate of drawing dropouts back.

6. Nirmala Shradhha Kendra

The cleanliness drive mooted by Dharmadhikari Dr. D Veerendra Heggade to clean religious centres in the state received tremendous response. The message by Dr. Heggade to clean the place of God before showering devote towards him. Across the state, more than 7,19,000 volunteers participated in the cleanliness drive within one month. During the campaign, more than 8,045 religious centers were cleaned including 200 mutts, 65 basadis, 12 masjids and 4 churches. Chikkaballapur district stood first in the campaign, as over 40,000 devotees completed cleaning 580 temples. Dakshina Kannada completed 560 religious centers, while Kodagu completed 486 religious centers.
7. Kamadhenu
A unique programme to protect the indigenous cattle breeds and to develop genetic material for breeding and promoting the indigenous breeds has also been initiated.

8. Sanitation
SKDRDP is committed to total health and sanitations in rural areas. For this purpose, SKDRDP has actively supported construction of individual toilets in villages and towns. For this purpose, SKDRDP has popularized several models including the UNICEF model, the twin pit pours flush model.

9. Navachetana
It is observed that millions of children in the country are suffering from disabilities and have different abilities. In order to encourage their abilities to enable them to lead a normal life, several schools for differently abled have been started which may be handicapped by lack of capital. To enable such unique institutions to access to financial resources it is proposed to establish a funding program to such schools annually subject to conditions.

- Table: Fund released for the Community Development Project, Division of SKDRDP

<table>
<thead>
<tr>
<th>S.no</th>
<th>Particulars</th>
<th>Fund released for the current period</th>
<th>Total fund released from 1989</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jnana Deep Education Programme.</td>
<td>1.14 Crore</td>
<td>15.68 Crore</td>
</tr>
<tr>
<td>2</td>
<td>Grama kalyana Project.</td>
<td>3.75 Crore</td>
<td>22.18 Crore</td>
</tr>
<tr>
<td>3</td>
<td>Hindu Rudra Bhumi Development</td>
<td>49.25 Lakh</td>
<td>4.66 Crore</td>
</tr>
<tr>
<td>4</td>
<td>Nava chethana Programme</td>
<td>7.20 Lakh</td>
<td>50.59 Lakh</td>
</tr>
<tr>
<td>5</td>
<td>Sujnana nidhi Scholarship</td>
<td>5.19 Lakh</td>
<td>29.32 Crore</td>
</tr>
<tr>
<td>6</td>
<td>Furniture Supply</td>
<td>81.24 Lakh</td>
<td>12.93 Crore</td>
</tr>
<tr>
<td>7</td>
<td>Sanitation Awareness Programme</td>
<td>-</td>
<td>11.56 Crore</td>
</tr>
<tr>
<td>8</td>
<td>Shuddhaganga Project</td>
<td>6.89 Crore</td>
<td>21.89 Crore</td>
</tr>
<tr>
<td>9</td>
<td>Lake revival programme</td>
<td>2.68 lakh</td>
<td>6.06 Crore</td>
</tr>
</tbody>
</table>

Fund supplied by Community Development. Division of SKDRDP

SKDRDP has contributed to the socio economic development of the poor and marginalized sections of the society. SKDRDP with its mission of sustainable development of poor and marginalized sections of society has a wide array of programs focusing on Financial, Social and Intellectual growth of the people. There is huge array of programs under the belt of SKDRDP.

Hence the programmes are designed in the following areas to support the rural mass: Agriculture supportive programmes, self-employment supportive activities, social security schemes, micro finance, educational support to the youth and rehabilitation.

Findings: The Study revealed the following findings.
1. The project is participatory in nature where, the local people form an implementation committee, this has helped to remove many hurdles in the process of project implementation.
2. The project achieved desired level of success due to blessings of its promoters, dedicated band of workers, good will of the stakeholders and above all a comprehensive program to better the living environment of the chosen areas.
3. Health awareness created among rural mass.
4. Various community development projects in the field of education, health, rural infrastructure etc., really able to modify the rural India.

Conclusion: “Grow along with the community “is the real slogan for Rural Development. Government alone cannot achieve Rural Development just by framing policy and programmes. Therefore, real growth can be achieved through participative community work. Work of NGO’s and SHG network really appreciable in this direction.

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