

# Compendium of Case Studies on Best Practices and Case-teaching Material in Rural Development

Sonal Mobar Roy



Centre for Post Graduate Studies  
and Distance Education

**National Institute of Rural Development  
and Panchayati Raj**

Ministry of Rural Development,  
Government of India

Rajendranagar, Hyderabad - 500 030, India

**Compendium of Case Studies  
on  
Best Practices and Case-teaching Material in  
Rural Development**



**Centre for Post Graduate Studies and Distance Education  
National Institute of Rural Development and Panchayati Raj  
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## **Preface**

This is a compilation of some of the cases that emerged as ‘best practices’ and have been good enough for being replicated elsewhere. The case method is a powerful student-centred teaching strategy that can impart students/participants with critical thinking, communication and interpersonal skills. Since the case studies are focusing on the best practices evolved, it is therefore important to understand what is meant by the same. Good practices tend to be effective, efficient, easily replicated by a wide range of communities facing similar constraints, responsive to real local needs and adaptable to specific local conditions. Programmes are sustainable if they are ecologically sound, economically viable, socially justifiable, culturally appropriate, humane and based on a scientific proposition. This compendium showcases the significant work done by various rural development functionaries and experts in the fields. The topics covered in the compendium, therefore, stand to be of importance to the students of Post Graduate Diploma courses at the National Institute of Rural Development and Panchayati Raj as they help in bridging the gap between theory and practice and help students become better RDM professionals. Also, it will be helpful for participants during various training programmes and act as a workbook for various training programmes across various sectors. This compendium highlights the lessons learned at the programme and field and can be used as a resource for future initiatives under various rural development programmes. The cases range from a wide spectrum starting from factors that led to villages emerge as model villages to issues of quality education, drinking water facility, access to health, education, justice and social accountability. This compendium provides a snapshot of initiatives undertaken in recent years, focusing on projects where valuable lessons could be drawn. The data shared in the cases has been collected from the field. At places, secondary sources have also been referred to. Also, a few discussion questions are designed

at the end of each vignette to help students develop an understanding of the related discourse and further develop a critical outlook.

In this compendium, a wider and comprehensive approach has been adopted. If the programmes and practices that have demonstrated economic, social and environmental benefits at the community levels, along with policies and programmes that support the spread of these practices are identified, documented and disseminated, it would definitely benefit the rural people, economies and environments.

I would like to make note of the contribution from Dr. G. Ravi Kumar, Research Assistant for this project. Gratitude is placed on record to Dr. N. S. R. Prasad for helping in the compilation of maps. Also, inputs from Shri Raman Kumar Singh (for the case from Gosaba, West Bengal), Dr. P SivaRam, Professor, CRI and Dr. R. Ramesh, Associate Professor, CRI, NIRDPR (for case on garbage mining, Tamil Nadu) are well appreciated. Moreover, assistance given by Dr. O.P. Pandey from Deen Dayal Upadhyaya State Institute of Rural Development, Lucknow is acknowledged. I acknowledge the timely support and guidance from Dr. R. R. Prasad, Dr. C. S. Singhal and staff of the Centre for Post Graduate Studies and Distance Education. Lastly, this compendium would not have been possible without the support of Dr. W. R. Reddy, Director General, and Smt. Radhika Rastogi, Deputy Director General, NIRDPR, Hyderabad.

It is hoped that this compendium of case studies will be able to ignite interest in students to identify issues and resolve them at the grassroots level.

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## **List of Abbreviations**

- ◆ ALMSC- Anganwadi Level Monitoring and Support Committee
- ◆ ANM- Axillary Nurse Midwifery
- ◆ ASER- Annual Status of Education Report
- ◆ ASHA- Accredited Social Health Activist
- ◆ ATNF- Apollo Telemedicine Networking Foundation
- ◆ AWC- Anganwadi Centre
- ◆ AWW- Anganwadi Worker
- ◆ CCE- Comprehensive Continuous Education
- ◆ CSC- Common Services Centre
- ◆ CWSN- Children with Special Needs
- ◆ DEO- District Education Officer
- ◆ DWAMA- District Water Management Unit
- ◆ DWSM- District Water and Sanitation Mission
- ◆ GLSR- Ground Level Storage Reservoir
- ◆ GP- Gram Panchayat
- ◆ GS- Gram Sabha
- ◆ HDI- Human Development Index
- ◆ IAY- Indira Awaas Yojana
- ◆ ICDS- Integrated Child Development Services
- ◆ IDA- International Development Association
- ◆ IFA- Iron and folic Acid
- ◆ MDM- Mid Day Meal
- ◆ MLA- Member of Legislative Assembly
- ◆ MMR- Maternal Mortality Ratio
- ◆ MoU- Memorandum of Understanding
- ◆ MP- Member of Parliament
- ◆ NGO- Non-Governmental Organisation

- ◆ NGP- Nirmal Gram Puraskar
- ◆ NHM- National Health Mission
- ◆ NRC- Nutritional Rehabilitation Centre
- ◆ NRHM- National Rural Health Mission
- ◆ OBC- Other Backward Class/Caste
- ◆ ODF- Open Defecation Free
- ◆ OHSR- Overhead Service Reservoir
- ◆ PESA- Panchayats (Extension to Scheduled Areas) Act
- ◆ PHED- Public Health Engineering Department
- ◆ PMAGY- Pradhan Mantri Adarsh Gram Yojana
- ◆ PMJDY- Pradhan Mantri Jan Dhan Yojana
- ◆ POPs- Persistent Organic Pollutants
- ◆ PRI- Panchayati Raj Institution
- ◆ PTR- Pupil-Teacher Ratio
- ◆ RGPSA- Rajiv Gandhi Panchayat Sashaktikaran Abhiyan
- ◆ RO- Reverse Osmosis
- ◆ RSBY- Rashtriya Swasthya Bima Yojana
- ◆ RTE- Right to Education
- ◆ SA- Social Accountability
- ◆ SAGY- Saansad Adarsh Gram Yojana
- ◆ SC- Scheduled Caste
- ◆ SDF- School Development Fund
- ◆ SHG- Self-Help Group
- ◆ SLRM- Solid Liquid Resource Management
- ◆ SMC- School Management Committee
- ◆ SNP- Supplementary Nutritional Programme
- ◆ SSA- Sarva Shiksha Abhiyan
- ◆ ST- Scheduled Tribe
- ◆ TDS- Total Dissolved Solutes

- ◆ THR- Take Home Ration
- ◆ TLM- Teaching and Learning Material
- ◆ UNDP- United Nations Development Programme
- ◆ UPHSSP- Uttar Pradesh Health System Strengthening Project
- ◆ VDC- Village Development Committee
- ◆ VEC- Village Education Committee
- ◆ VHSNC- Village Health Sanitation and Nutrition Committee
- ◆ VSAT- Very Small Aperture Terminal
- ◆ WVI- World Vision India



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## Case Study One

### **Making of a Model Village: Juvvalapalem**

#### **Introduction**

The heart of India lies in its villages. Away from the hustle and bustle of fast life, the serenity of villages draws people closer. With strong social capital, the people in the villages tend to live a life that may lack choice, but is rich in values. They face considerable challenges, from persistent poverty and grinding inequalities to climate change and environmental sustainability in general, and of conflict and instability with huge amounts of human potential remaining untapped. This is of particular concern for youngsters, women and differently-abled, and the marginalised. If the potential of all people is harnessed through appropriate strategies and efficient policy interventions, human progress would be accelerated and human development deficits would be reduced.

India climbed one spot to 130 among 189 countries in the latest Human Development Index released recently by the United Nations Development Programme (UNDP, 2018). Within South Asia, India's Human Development Index (HDI) value is above the average of 0.638 for the region, i.e., with Bangladesh and Pakistan (countries with similar population size, being ranked 136 and 150 respectively). This shows that India needs to focus on certain ground realities and issues straddling socio-economic and environmental realms and design interventions for the development of the most vulnerable and marginalised, and not just of the urban populace.

#### **Background**

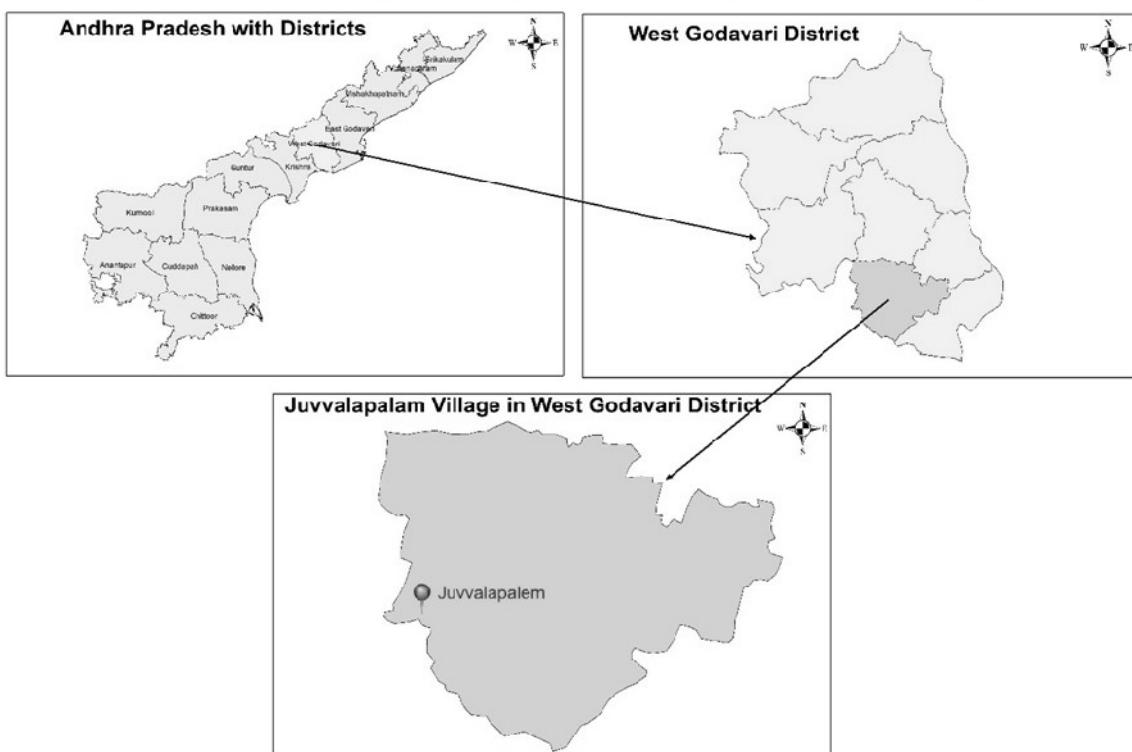
Juvvalapalem is a village in Kalla Mandal in West Godavari district of Andhra

---

Pradesh State in India. The village is located at 40kms towards East from the district Headquarters Eluru, seven km from Kalla, and 376 km away from the State capital, Hyderabad.

### **Map of Juvvalapalem (Map I.I)**

**Location Map of Juvvalapalem Village in Kalla Mandal, West Godavari Dist, AP.**



The main language of the place is Telugu, though traces of Urdu and Hindi are also found. The main source of livelihood of the people is agriculture, while some also engage in pisciculture, the place being in the coastal region.

### **Making of a Model Village**

Community-led initiatives make a model village. Going by Gandhiji's idea that '*the future of India lies in its villages*', the villages have been the centre of attention for development. They have become the focal point of concern. A few of such resilient villages have

been trying to remain relevant by adopting interventions and changes while keeping their identities in place and Juvvalapalem stands no exception.

In 2016, the people of the Gram Panchayat realised that they were lagging behind in development when compared to their neighbouring Gram Panchayats'. After serious contemplation, the Sarpanch and Ward members took a call of conducting Gram Sabha and prioritising their needs. The issue related to drinking water supply emerged as a crucial point, apart from other issues related to hygiene and sanitation, open defecation, etc. Thus, the importance of Drinking Water and Sanitation Mission (DWSM) was realised.

## **District Water and Sanitation Mission**

In 2003, the district of Godavari took steps towards zero-open defecation through the creation of District Water and Sanitation Mission (DWSM), registered under the Societies Act.

A DWSM is constituted at the District level and functions under the supervision, control and guidance of Zilla Panchayats/Parishads. The composition and functions of DWSM are as follows:

The DWSM is headed by a Chairperson from the Zilla Parishad. In districts where Zilla Parishad have not been constituted, and there is no Chairperson in place, the Chairperson of the District Planning Commission or the District Collector/Deputy Commissioner as may be decided by the State Water and Sanitation Mission will be the Chairperson of DWSM.

The members are all MPs/MLAs and MLCs of the district; Chairperson of the Standing Committees of the Zilla Parishad, DC/DP, district officers of Education, Health, Panchayati Raj, Social Welfare, ICDS, PHED, Water Resource, Agriculture, Information and Public Relations.

---

NGOs, as identified by DWMSM, are co-opted into Missions as members.

The Executive Engineer of PHED/District Engineer of the Zilla Parishad shall be the Member Secretary and the Drawing and Disbursing Officer. The Member Secretary shall ensure utilisation of the existing infrastructure with him/her for administrative support for day-to-day functioning.

The Mission shall meet at least quarterly to review the status and progress in the implementation of rural water supply and sanitation programmes. In case of MPs/ MLAs/ MLCs of the district who are also Ministers in Central/ State Governments, they may be allowed to depute one representative each on their behalf to the District Water and Sanitation Mission.

## **Functions of the District Water and Sanitation Mission (DWMSM)**

The functions of the District Water & Sanitation Mission (DWMSM) are as follows:

- i. Formulation, management and monitoring of projects and progress on drinking water security and total sanitation in rural areas.
- ii. Scrutiny and approval of the schemes submitted by the Block Panchayat/ Gram Panchayat and forwarding them to SLSSC where necessary.
- iii. Selection of agencies and/ NGOs and enter into agreements for social mobilisation, capacity development, communication, project management and supervision.
- iv. Sensitising public representatives, officials and the general public.
- v. Engaging institutions for imparting training for capacity development of all stakeholders, and undertaking communication campaign

- vi. Coordination of matters relating to water and sanitation between district representatives of Health, Education, Forests, Agriculture, Rural Development, etc., as well as National programmes such as SSA, NRHM, ICDS, etc.
  
- vii. Interaction with SWSM, State Government and the Government of India.

The Juvvalapalem Gram Panchayat, West Godavari, Andhra Pradesh won the Nirmal Gram Puraskar in 2006.

The brief profile from a report by UNICEF shows the following details:

**Table I.I: Brief Profile of Juvvalapalem Village**

| <b>S. No.</b> | <b>State</b>                      | <b>Andhra Pradesh</b>  |
|---------------|-----------------------------------|--|
| 1.            | District                          | West Godavari  |
| 2.            | Gram Panchayat                    | Juvvalapalem   |
| 3.            | Year of NGP award                 | 2006   |
| 4.            | Sample households                 | 41   |
| 5.            | Total households                  | 1,130  |
| 6.            | Caste community distribution      | SC-1 per cent, ST-4 per cent, BC/OBC-65 per cent, OC-30 per cent                           |
| 7.            | Household sanitation arrangements | IHHL-75 per cent<br>Community Toilets-5 per cent<br>No toilets/Open Defecation-20 per cent |
| 8.            | Toilet use pattern (during day)   | IHHL-70 per cent   |
| 9.            | Brick stone concrete walls        | 100 per cent   |
| 10.           | Washing hands after defecation    | Only water-49 per cent;<br>With soap-51 per cent   |
| 11.           | Drinking water handling behaviour | Store water-100 per cent   |
| 12.           | Safe disposal of Sewage Waste     | 90 per cent  |

**Source:** TARU: Impact Assessment of NGP Awarded GPs (Final Report, August 2008).

As per the statistics available, the village has performed tremendously on the roadmap of development. The issues of hygiene and sanitation have been focused upon and high standards of the same have been maintained. This is only possible through the sustained efforts of the community, but the situation was not the same a few years ago. There was a lot of distress and scope for development.

### **Emerging of a Model Village**

Out of the 48 Mandals, consisting of 881 villages, Juvvalapalem emerged as a model village. While nearly half of the villages in the district got the Nirmal Gram Puraskar, the district adopted the Juvvalapalem strategy for creating model villages throughout the district. The village has had regular elections and representatives who have steered development over the years.



**Figure 1.1: List of Sarpanchs in Juvvalapalem**

## **Nirmal Gram Puraskar**

Introduction of Nirmal Gram Puraskar (NGP) was to give innovative financial incentives to ignite positive sanitation and hygiene behaviour changes in rural communities promoting rural sanitation on a large scale. The criteria for selecting the award include:

- i. All households having access to toilets with full use and no open defecation.
- ii. All schools have sanitation facilities which are also put to use and all co-educational schools with separate toilets for boys and girls.
- iii. All anganwadis should have access to sanitation facilities.
- iv. General cleanliness in the settlement.

The main objective was to motivate Panchayati Raj Institutions (PRIs) in taking-up sanitation promotion activities and shift their priorities from hardware and infrastructure projects. Juvvalapalem is the first village from the district to receive the Nirmal Gram Puraskar in 2006. It has been an ‘ideal’ for the other villages to aspire for the same. The village adopted an integrated and holistic approach to sanitation. The main issues on which it concentrated are:

- i. Providing latrines to individuals as well as communities.
  - ii. Providing water supply to the households for both domestic works and for drinking purposes.
  - iii. Proper maintenance of the Community Sanitation Complexes.
  - iv. Collection of solid waste from houses.
-

- v. Construction of drains and soak pits to connect to the main village drain.
- vi. Committees for monitoring sanitation works.
- vii. Fundraising system for community development works.

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  - iv. Collection of solid waste from houses.
  - v. Construction of drains and soak pits to connect to the main village drain.
  - vi. Committees for monitoring sanitation works.
  - vii. Fundraising system for community development works.
-



**Figure I.2: NGP 2006 Award Ceremony**

According to Census 2011, the total population of the village is 3800, with 1800 males and 2000 females. Community-led development initiatives were formulated with the help of various committees with assigned tasks. The following are the Committees that have been formulated with the consensus of all for supervising tasks assigned:

- i. Janmabhoomi Committee
- ii. Smart Village Committee
- iii. Water Committee
- iv. Education Committee
- v. Youth Committees (Caste-wise)

By formulation of the above committees, the village has been able to monitor works and sustain its position as a ‘Model Village’.

## **Role of Community**

Communities need to be encouraged to participate in discussions regarding their local issues. Their discussion is important for consideration and identifying appropriate solutions against problems in its various complex aspects and perspectives. As is the case of Juvvalapalem, the people have identified key issues and formed strategies to implement actions. Their tremendous efforts have yielded results in being identified as a model village.

## **Points for Deliberations**

- i. Increased sensitisation and awareness leads to better results in community development. Comment.
- ii. Do you think behavioural change is an impetus in achieving ODF? How can behavioural change be brought about with crowd mobilisation?
- iii. Delegation of work and peoples' participation are the key factors in bringing change at the societal level. Discuss.

## Case Study Two

# **Making of a Model Village through Good Governance: Hajipalle**

### **Introduction**

The Pradhan Mantri Adarsh Gram Yojana (PMAGY) was launched by the Central Government in 2009-10. It was implemented in pilot mode in 1,000 villages of Assam, Bihar, Himachal Pradesh, Rajasthan and Tamil Nadu with an allocation of ₹10 lakh per village, which was later increased to ₹20 lakh. Villages that had more than 50 per cent of the population belonging to Scheduled Caste were selected.

Moreover, the Sansad Adarsh Gram Yojana (SAGY) of the Central Government aims to involve MPs more directly in the development of 'Model Villages'. The MPs are expected to adopt village(s) under this initiative and work in an integrated, efficient and participative fashion. SAGY is a village development project launched by the Government of India in October, 2014, under which each Member of Parliament will take the responsibility of developing physical and institutional infrastructure in three villages by 2019.

The project was launched on the occasion of the birth anniversary of Lok Nayak Jai Prakash Narayan and is inspired by the principles and values of Mahatma Gandhi. It aims to provide rural India with quality access to basic amenities and opportunities. The scheme has a holistic approach towards development and envisages the integrated development of select village across multiple areas such as agriculture, health, education, sanitation, environment, livelihoods, etc. Far beyond mere infrastructure development, SAGY aims at instilling and nurturing values of national pride, patriotism, community spirit, self-confidence people's participation, dignity of women, etc., in the people.

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The scheme is implemented through the MPs with the District Collector being the nodal officer. The MPs would be free to identify a suitable Gram Panchayat for developing it into an ‘Adarsh Gram’, other than his/her own village or that of his/her spouse. Gram Panchayat, which has a population of 3,000-5,000 in plain areas and 1,000-3,000 in hilly, tribal and difficult areas, would be the basic unit for development.

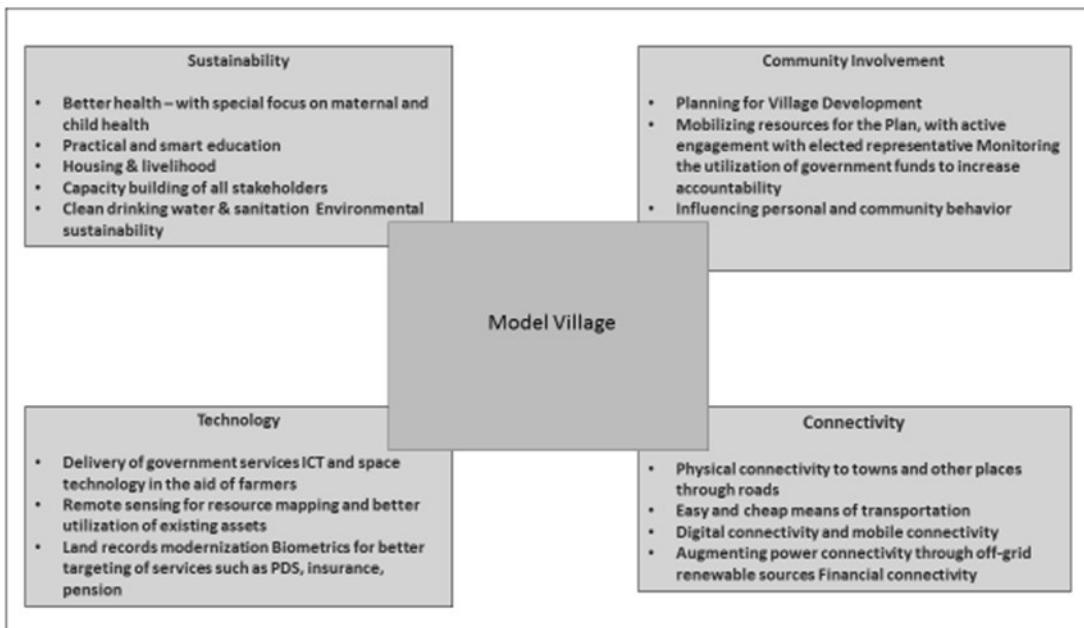
A ‘model village’ has the following important objectives:

- i. **Prevent distress migration** from rural to urban areas, which is a common phenomenon in India’s villages due to lack of opportunities and facilities that guarantee **a decent standard of living**.
- ii. Make the model village a ‘**hub**’ that could attract resources for the development of other villages in its vicinity.
- iii. Provide **easier, faster** and **cheaper access** to urban markets for agricultural produce or other marketable commodities produced in such villages.
- iv. Contribute towards **social empowerment** by engaging all sections of the community in the task of village development.
- v. Create and sustain a **culture of cooperative living** for inclusive and rapid development.

## **Key Elements of a Model Village**

A 21<sup>st</sup> century model village in India needs to incorporate certain key themes that would be essential for its success. The figure below highlights these broad thematic focus areas and also mentions important elements under each such theme.

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**Source:**[www.swaniti.inhttp://www.swaniti.com/wp-content/uploads/2015/03/Model-Village\\_Brief.pdf](http://www.swaniti.inhttp://www.swaniti.com/wp-content/uploads/2015/03/Model-Village_Brief.pdf)

**Figure 2.1: Thematic Focus Areas in Making of a Model Village**

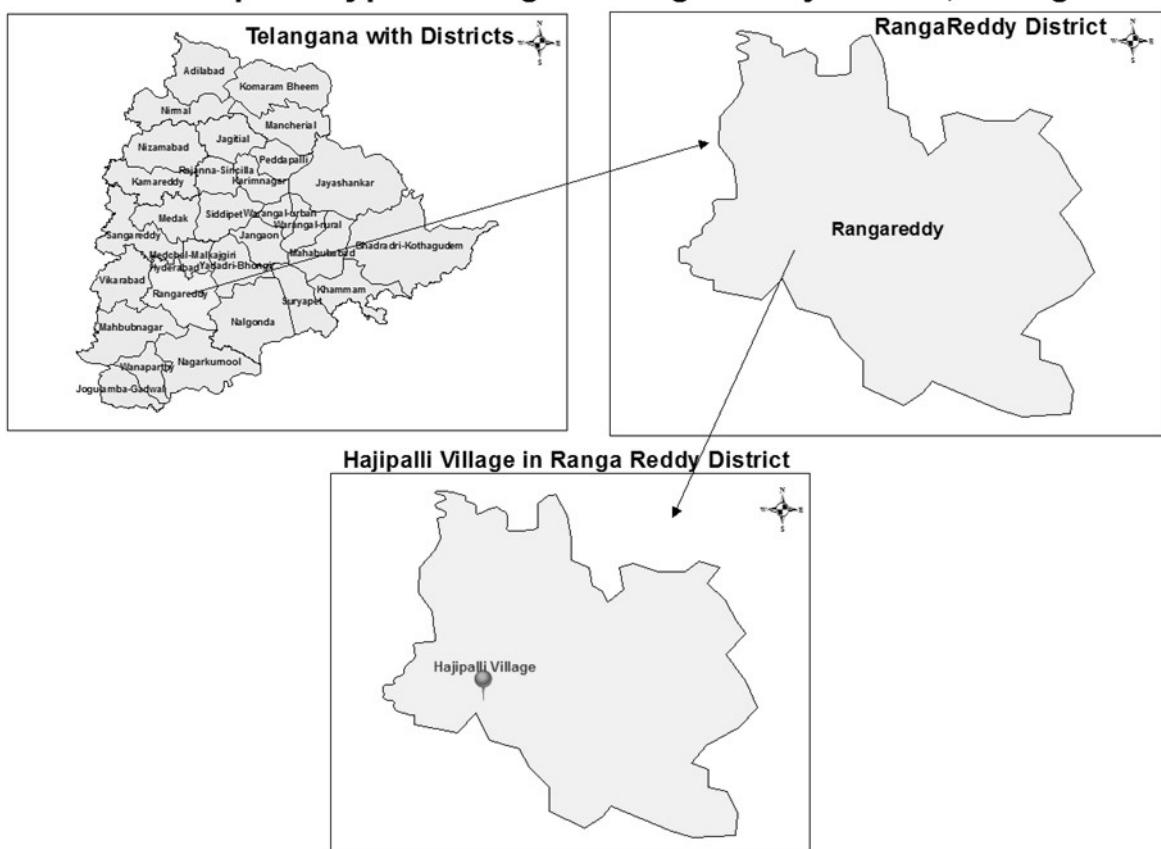
The above figure highlights the key elements required for forming of a model village. It is essential to highlight the key indicators of quality of life, related to health, education livelihoods, etc. Using appropriate technologies in an optimal manner would give impetus to the life of disadvantaged communities. An organic linkage has to be built between people and planning along with policy advocacy.

Hajipalle is one of the villages that got selected for the Nirmal Gram Puraskar for the year 2008. It is located in Faroqnagarmandal, Mahbubnagar district in Telangana State. In early 2000s, it was one of the most under-developed villages in the district, but with persistent community action, it emerged as one of the model villages in the country. Before becoming a Panchayat, it was a hamlet of the Krishnagar Gram Panchayat. The total population of the village is 876, out of which 446 women and 430 men reside

in the village. The caste composition of the village is mainly Other Backward Class (OBC) and Schedule Caste (SC), wherein a majority of the households are of the OBCs. The total geographical area of the village is 750 acres. Agriculture and animal husbandry are the main livelihood sources of the people. The main crops in the village are vegetables, paddy, maize, and the produce is sold at the nearby Shadnagar market. About two decades ago, Hajipalle was a typical Indian rural village drenched in superstitions, caste division, illiteracy, ignorance, etc.

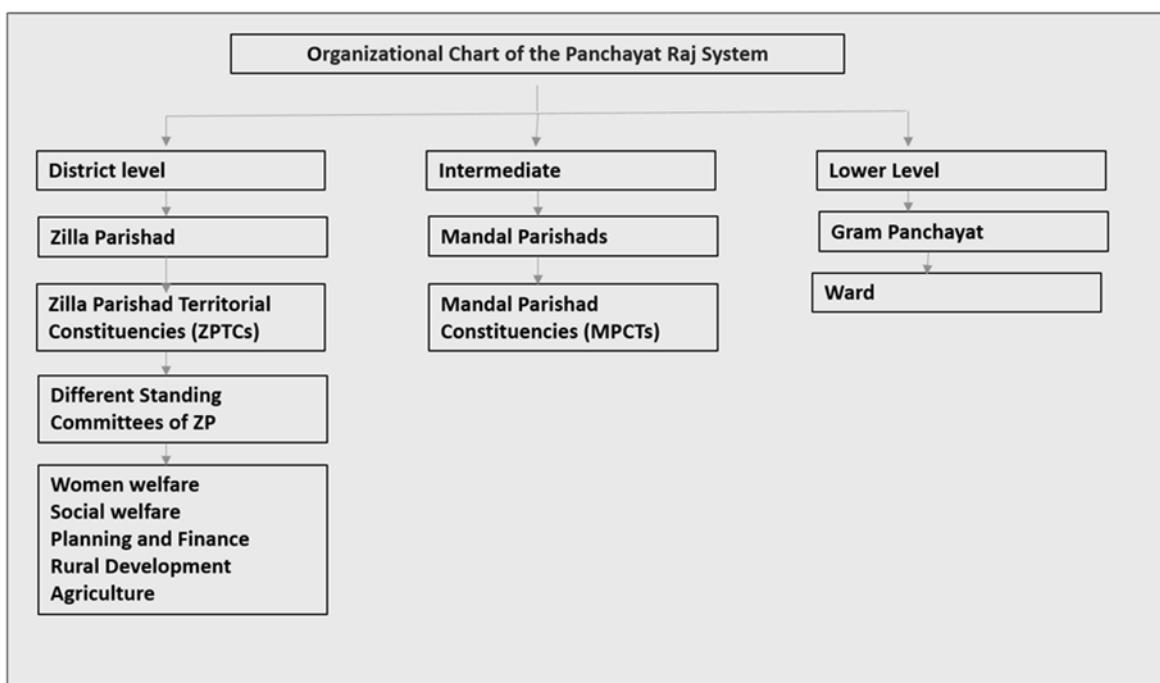
### **Map of Hajipalle (Map 2.I)**

#### **Location Map of Hajipalle Village in Ranga Reddy District, Telangana.**



But since the year 2000, the current village president who is the only graduate from the village started development activities and motivated all the people in the com-

munity towards achieving better living conditions in the village. With the continuous efforts and strong determination of the community, the village emerged as one of the model villages in India by fulfilling all the criteria. The village has been documented for various good initiatives, but in this case, the focus is drawn on the good governance perspective in the village, which has been the backbone of the development of the village.



**Figure 2.2: Organisation Chart of the Panchayati Raj System**

The Gram Panchayat has eight wards and the total Gram Panchayat (GP) body members are twelve in number including the President, Vice-President, eight ward members, Village Revenue Officer and Panchayat Secretary. The GP body is unanimously elected and it is great to note that all members are literate. The composition of the GP body is gender-inclusive with four members being females and two members representing the SC community.

## **Participation is the Key**

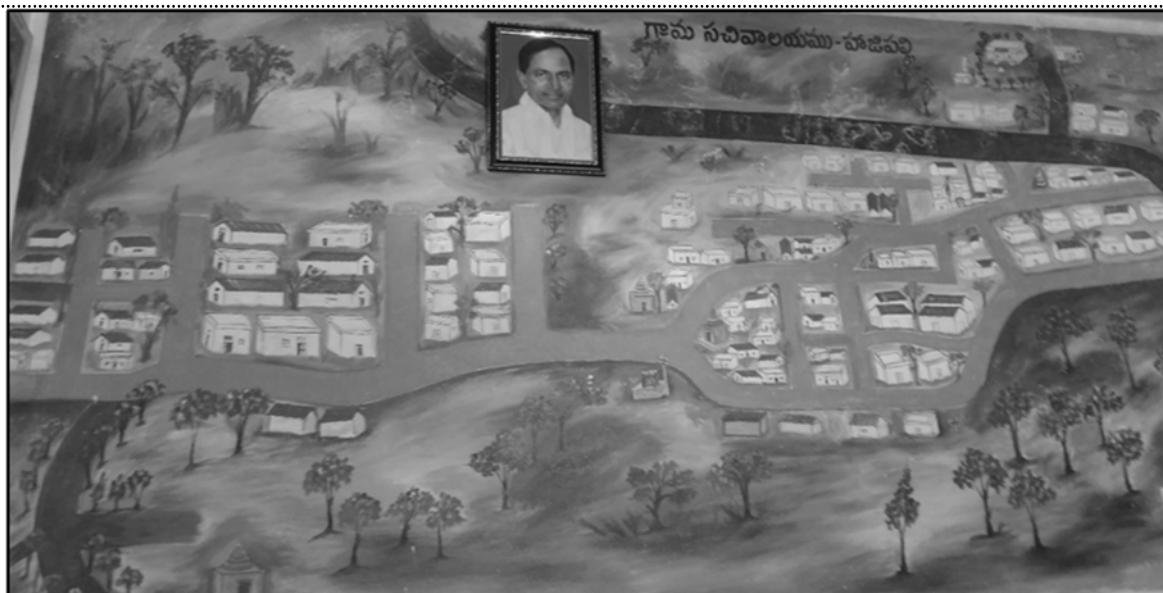
The village was not developed initially, despite its proximity to the State capital of Hyderabad. Alcoholism was prevalent on a large scale. People refrained from casting votes and involving in development-related matters. Over a period of time, the people realised that they were not receiving funds, or were not able to draw benefits from schemes floated by the government and that social development was nose-diving. It was then, that a dire need was felt for people to shake up from their slumber and think of some collective action.

The importance of community-led initiatives was highlighted amongst the people by the team visiting from the National Institute of Rural Development and Panchayati Raj (NIRDPR). The team raised awareness among people which led to their active participation henceforth. They realised the importance of conducting Gram Sabhas (GS) for making their voices heard. They realised that every single one of them could voice their opinion in a Gram Sabha and can reach out to their fellow brethren. There is an equal opportunity for all the residents in the village to participate in the Gram Sabha (GS).

## **Gram Sabha-The Vector of Change**

A Gram Sabha is a body consisting of all persons whose names are included in the electoral rolls for the Panchayat at the village level. The term is defined in the Constitution of India under Article 243 (b). The GS aims at approving plans, programmes and projects for social and economic development before they are taken up for implementation.

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**Figure 2.3: Village map on display at the GP office in Hajipalle**

### Scheduled Meetings of the Gram Sabha

According to the State Panchayati Raj Acts, the Gram Sabha must meet at least two to four times a year. For people's convenience, in most of the States, four National days have been identified:

- i. Republic Day (26<sup>th</sup> January)
- ii. Labor Day (1<sup>st</sup> May)
- iii. Independence Day (15<sup>th</sup> August)
- iv. Gandhi Jayanti (2<sup>nd</sup> October)

The Gram Sabha is the centre of the Panchayati Raj and village development. The forum of Gram Sabha is used to discuss local governance and development, and need-based plans are made for the village. The Panchayat puts into effect the programmes related to development under the overarching mandate, supervision and monitoring of the

Gram Sabha. The decisions of all types of the Panchayat are taken by the Gram Sabha and hence to validate any decision, the consent of Gram Sabha is mandatory.

Functions of Gram Sabha are also elaborated in the Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996. As per the Act, every Gram Sabha is competent to safeguard and preserve the traditions and customs of the people, their cultural identity, community resources and the customary mode of dispute resolution. Gram Sabhas in the Scheduled Areas can be endowed by the State governments with such powers and authority as may be necessary to enable them to function as institutions of self-governance. Some such powers include:

- i. The power to enforce prohibition or to regulate or restrict the sale and consumption of any intoxicant.
  - ii. The ownership of minor forest produce.
  - iii. The power to prevent alienation of land in the Scheduled Areas and to take appropriate action to restore any unlawfully alienated land of a Scheduled Tribe.
  - iv. The power to manage village markets.
  - v. The power to exercise control over money lending to the Scheduled Tribes.
  - vi. The power to exercise control over institutions and functionaries in all social sectors.
  - vii. The power to control local plans and resources for such plans including tribal sub-plans.
-

The people in the village are strictly following the rule of law and conducting Gram Sabhas regularly. A point of appreciation here is that in case of any exigency, they conduct a GS apart from the four days designated to it. They discuss all new initiatives and development plan activities immediately in a GS without wasting time. It is observed that people prefer to conduct a GS on a Tuesday as it is mostly an off-day for them. This is because all the villagers are engaged in some job or another at Shadnagar, which is about 8km away, and every Tuesday the market is off there.

Another archival practice that they have overcome is that of using drum-beaters. Initially, all announcements in the village were made by drum-beaters in a traditional manner. But after the villagers set foot on the road of development, they have given up such practices. Now, they make use of electronic sound amplification to make public announcements.

## **Formulation of Local Committees**

Having identified the potential of Community-led development works, the people in the village have formulated various committees and assigned them various tasks. There exist 11 committees (seven Gram Jyoti Committees and four other committees) and they are as follows:

- i. Sanitation and Drinking Water Committee
  - ii. Health and Nutrition Committee
  - iii. Education Committee
  - iv. Social Security and Poverty Reduction Committee
  - v. Natural Resource Management Committee
-

- vi. Agriculture Committee
- vii. Infrastructure Committee. Apart from the above-mentioned Committees, other Committees include:
- viii. Visitors Committee
- ix. Pensioners Committee
- x. Yuvajan (Youth) Sangham Committee
- xi. Devalaya (Temple) Committee

The above-mentioned committees look onto the progress and implementation of schemes underway in each sector assigned to them. This helps in close monitoring of the tasks and keeps a track of the progress made.

### **Nurturing Accountability**

During the visit to the Gram Panchayat (GP), it was observed that every household member feels that they are responsible for their community development. If there is any problem in the village, regarding water, sanitation, street lights health, etc., they appraise the person concerned, mostly the president of the GP. The problem is solved within a maximum duration of two days if it is within the GP's purview, otherwise the problem would be taken-up with the officer concerned. For example, the GP president reported that he got a complaint about the new house construction issue, as it is out of his authority, he called for the GS to discuss the issue and a resolution was sought amicably. The villagers said that all the members of the GP have been responsive towards their problems as well as for village development.

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Hajipalle has maintained a separate register for each tax they have collected from the villagers and funds they received from the State as well as the Centre. It has hundred percent house tax collection records from the year 2014-15. It was seen that the villagers are committed to performing their duties and utmost responsibility. The Village Revenue Officer displays the list of house tax on the GP notice board and makes a public announcement. Every household comes to GP and checks their tax details as they have good knowledge about the taxes levied in the village. They pay their taxes before the last date without creating any trouble.

Every GP has to conduct meetings within a span of every 90 days without fail. In this village, the President conveys meetings periodically and all the members attend the meeting without fail. The GS is conducted every three months in a year, usually in January, April, July, and October. Also, in cases of exigencies, a GS is conducted in case it is felt necessary. The last decade has ushered a number of changes in the village in terms of the social and economic point of view. Hajipalle has attained 91 per cent of literacy rate, and the education levels range from the 3<sup>rd</sup> class to Post Graduation in the village.

### **Maintaining Transparency, Winning Hearts**

The information about the functioning of the GP, implementation details of various programmes, GS resolutions and other development issues are always available with the GP and anyone at any time can seek updated records and avail the information. Every person who has participated in the GS has the freedom to speak. They can fearlessly voice their issues and seek solutions amicably. Anyone who is above the age of 18 years is eligible to take part in the Gram Sabha meetings. All the villagers are included in the decision-making without any bias.

In this village, both Central and State government schemes are being implemented quite well. The project benefits are distributed equally among the eligible

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persons without any constraints. The current implementing projects are National Family Beneficiary Scheme, Kalayana Lakshmi, Mid-Day Meals, etc.

## **Effectiveness and Efficiency**

There is evidence for the efficacy and effectiveness of the programmes formulated for the development of the village. The community people are implementing every development related activity in *toto*. As a result, they have achieved several awards. They have made the GP 100 per cent ODF with good sanitation facilities and there is 100 per cent water supply. They have also planted saplings to maintain green cover and use solar street lights with the support of NIRDPR, Hyderabad to conserve energy.

| <b>Awards</b>   |
|---|
| <ul style="list-style-type: none"><li>◆ In November 2008, Hajipalle received the State Government's <i>Shubhram</i> (Clean) Award.</li><li>◆ In December 2008, Hajipalle won the prestigious Nirmal Gram Puraskar (NGP) from the President of India.</li><li>◆ In 2010, the Mandal Panchayat gave away <i>Shubhram</i> (Clean) Award to Hajipalle.</li><li>◆ In March 2015, Hajipalle won the prestigious Rajiv Gandhi Panchayati Swashakti Karana (RGPSA) Abhiyan Award from the Ministry of Panchayati Raj (Gol), with a cash prize of ₹8 lakh.</li></ul> |

**Figure 2.4: Awards received by Hajipalle Village**

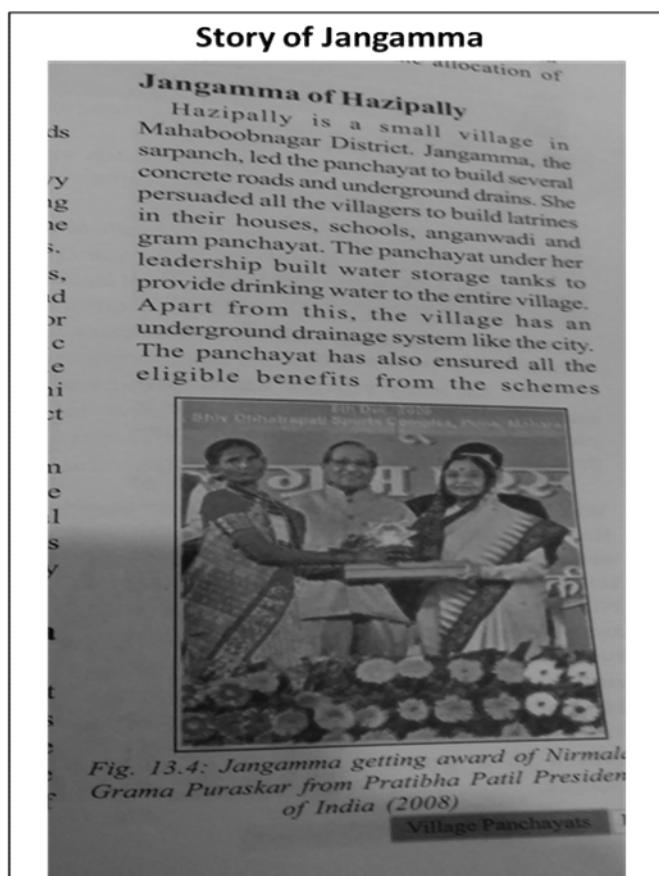
## **Equity and Inclusiveness**

In Hajipalle, there is no discrimination at any level, and everybody exercises their rights and responsibilities within their limits. All the developmental activity benefits are equally distributed among all the groups to the extent of their eligibility. Inclusiveness is reflected in the point that all houses are inside the village and no separate colonies exist

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for the marginalised sections of the society.

The game-changer, per se, has been Jangamma, who has been the torch-bearer of the development at Hajipalle. She was selected as the Sarpanch and in the due course of time spearheaded various programmes and schemes and made sure that the benefits reached the needy. She is honourably referred to as the ‘beacon-leader’ and has made sure that her people draw ample benefits from various government schemes.



**Figure 2.5: Sarpanch Receiving NGP from the President of India**

## **Impact**

Under strong leadership and healthy community participation, the GP has shown extraordinary performance in local governance. Due to the regular health camps arranged by the President with the help of the government, all the villagers had knowledge about immunisation and also learnt about the importance of nutritional and institutional deliveries. During the last 6 to 8 years, tremendous healthcare advancements have been noticed in the village. They have achieved 100 per cent institutional deliveries and also reduced the frequency of visiting the hospital. They built the model village and maintained its sustainability, with the concerted efforts by local leaders, and continual education of the community members. In the village, every household has drinking water supply and bathroom.

## **Points for Deliberations**

- i. How did public participation lead to Hajipalle emerging as a model village? Do you relate this development under Social Network theory?
  - ii. Conducting Gram Sabhas regularly has led to massive change in development at Hajipalle. Comment.
  - iii. People's participation has been widely used in the discourse of development for the last few decades and it has become a worldwide phenomenon, without which it is impossible for the administration to function effectively. Discuss.
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## Case Study Three

### Pure Drinking Water Project at Jayagiri, Telangana State

#### Introduction

In a country where an estimated 63 million people lack access to safe drinking water and half the groundwater is contaminated with fluoride, nitrate and heavy metals, the availability of safe water at a press of a button, sounds like a mockery. In an attempt to address the problem and in line with the idea of Automated Teller Machines (ATMs) that dispense cash, are the Any Time Water (ATWs) cards that provide purified drinking water at the swipe of a smart card.

Water is a basic human need and every day, each person requires at least 20 to 50 litres of clean, safe water for drinking, cooking and other needs. Access to pure water is a human right and an essential step towards improving the living standards of the people. The provision of clean drinking water has been given priority in the Constitution of India with Article 47 conferring the duty of providing clean drinking water and improving public health standards of the residents of a State. Water is necessary for hydration and for food production, but sanitation too is equally important. Lack of proper sanitation services not only breeds disease, but it can also deprive people of their basic human dignity. The state of drinking water supplies can be quantified by four important characteristics: *quality, quantity, reliability and cost*.

However, the access to 'single- village schemes' has led to the supply being vulnerable to chemical and biological contaminants. In Telangana and Andhra Pradesh, the widespread prevalence of fluoride is adversely affecting human health by causing dental and skeletal fluorosis. With a rapidly growing population and increasing demand for

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quality potable drinking water, innovative solutions have been emerging to resolve this water crisis. Since the last two decades, many players have been supplying portable drinking water in villages. The estimated/recoded number of Reverse Osmosis (RO) units operating across India is approximately 7,000 – 12,000, devoid of the unrecorded counts which might be a considerably big number. Established organisations like the Naandi Foundation and Water Health International (WHI) rendered quality help at the village level for water treatment and supply.

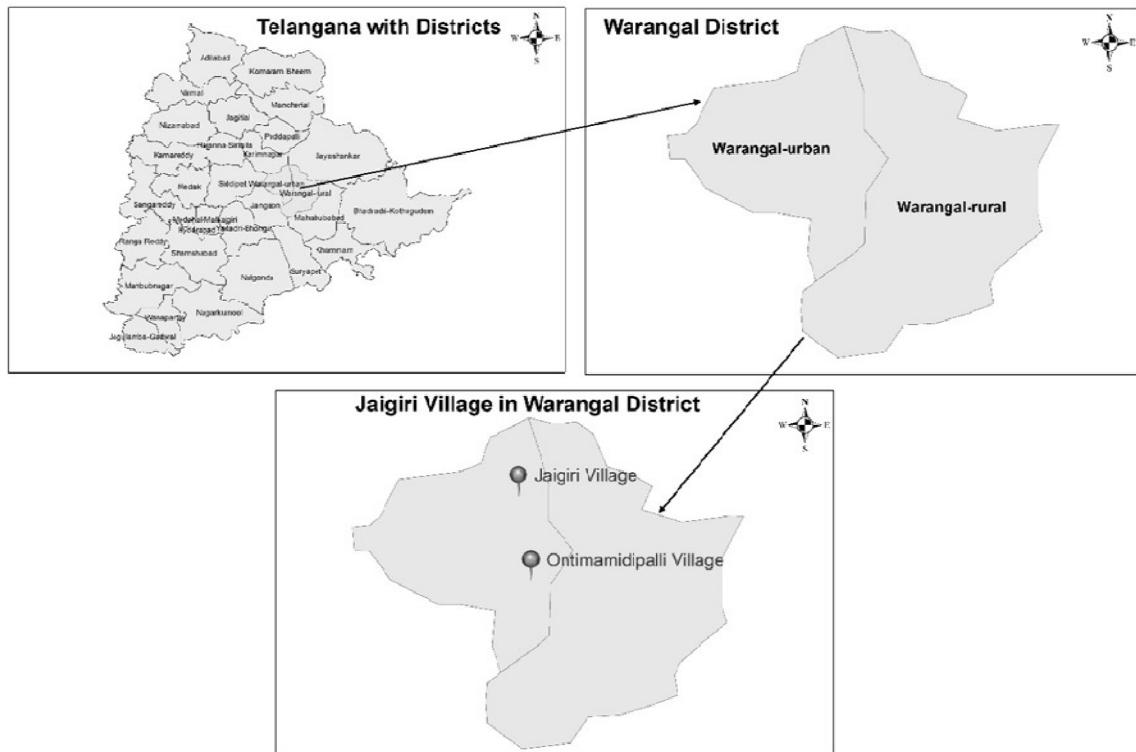
### **Profile of Jayagiri Village**

Jayagiri, also known as Jaigiri is a village in Hasanparthy Mandal in Warangal district of Telangana State. As part of the reorganisation of districts in Telangana districts, Jaigiri village in Hasanparthy Mandal, which was previously a part of Warangal is now added to Warangal Urban district. It is located at a distance of 16km towards west from the district headquarter -Warangal, and is 6km away from Hasanparthy.

According to Census 2011, the local language of the place is predominantly Telugu. The total population is 2,421 with 636 houses. The male and female population in the village is approximately 50 per cent each. The table below shows the demographic details of the village.

A majority of households depend on agriculture and non-farming income for their livelihood. Initially, the village had a number of issues related to amenities like drinking water, electricity, drainage system, etc. Taking cognisance of the situation, residents of the village took sought support from ‘Bala Vikasa’. The village resuscitated as a ‘Model Village’ with great support from Bala Vikasa.

### Map of Jayagiri (Map 3.1)



**Table 3.1: Demographic Details of Jayagiri**

| S. No. | Item                      | Number |
|--------|---------------------------|--------|
| 1      | Total population          | 2,421  |
| 2      | Total households          | 636    |
| 3      | Total population          | 2,421  |
| 4      | Male population           | 1,210  |
| 5      | Female population         | 1,211  |
| 6      | Schedule Tribe population | 132    |
| 7      | Backward Class population | 1,845  |
| 8      | Total literacy            | 1,377  |
| 9      | Females (literate)        | 600    |
| 10     | Child (0-6 years)         | 222    |
| 11     | Girl Child                | 110    |

**Source:** Census, 2011.

## **Bala Vikasa: Reviving Villages, Moulding Lives**

According to Bala Vikasa's water test in 2013, Jayagiri village's groundwater contained 3 ppm of fluoride per one million units of water. Contaminated water has long-term issues like weakening of bones leading to joint pains, damages tooth enamel and has other health problems. Due to bacterial contaminants, several people experienced stomach aches and diarrhoea. Even though mineral water was available from a local commercial water purification plant in the proximity of the village, most of the residents could not afford it due to its high cost (₹10 per 20 litres). The villagers were exploring possibilities of setting up a water purification plant in their village and in the process, they came to know about Bala Vikasa.

Bala Vikasa is a non-profit organisation founded in 1977 by Bala Theresa and André Gingras with the mission to support and strengthen the development process of India's poor communities, particularly in Andhra Pradesh and Telangana. Since its inception, the organisation has grown to be regarded as a model non-profit organisation in India and internationally because of its concrete results helping entire communities come out of poverty. In addition to the community-driven development programmes, SOPAR-Bala Vikasa is ardently involved in building the capacities of development professionals, entrepreneurs and personnel from the corporate sector by exposing them to best practices of sustainable development. Bala Vikasa is headquartered in Gatineau, Canada with a new charitable initiative in the USA. Bala Vikasa has its head office and training centre in Warangal, India.

### **Accomplishments of Bala Vikasa**

The following table gives Bala Vikasa's achievements in community-driven development programmes for the financial year 2014-15.

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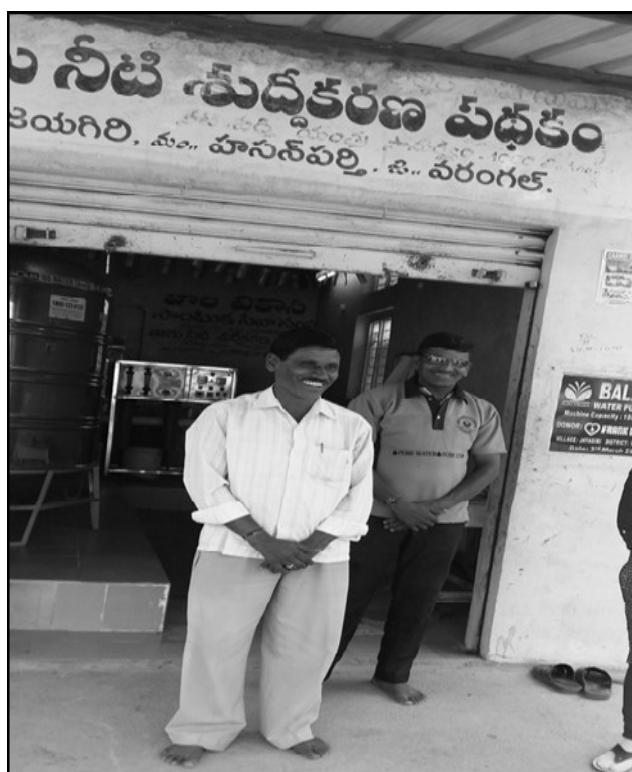
**Compendium of Case Studies on Best Practices and Case-teaching Material in Rural Development**

| Table 3.2: Interventions in Place by Bala Vikasa   |  |   |
|--|--|---|
| INTERVENTION                                       | 2016-17  | CUMULATIVE  |
| <b>Water</b>                                       |  |   |
| Water purification plants installed                | 82 WPPs benefiting 54,547 families               | 750 WPPs benefiting 3,07,374 families               |
| Bore wells dug                                     | 220 borewells, benefiting 58,075 people          | 6,261 borewells, benefiting 1,91,615 families       |
| <b>Women's Empowerment</b>                         |  |   |
| Women's SHGs facilitated                           | 7,428 groups, consisting of 81,598 women members | 19,375 groups, consisting of 2,22,428 women members |
| Microenterprises set up                            | 6,337  | 1,76,337  |
| Skill training beneficiaries                       | 30   | 1,319   |
| Adult literacy beneficiaries                       | 66   | 41,974  |
| Widows mentored                                    | 15,026   | 15,026  |
| <b>Food Security &amp; Environment</b>             |  |   |
| Tanks de-silted                                    | 28   | 747   |
| Farm land acres fertilised with natural silt       | 6,230 acres benefiting 3,510 farmers             | 1,12,689 acres benefiting 59,401 farmers            |
| Organic farmers enrolled                           | 202  | 715   |
| Drip irrigation kits donated                       | 30   | 327   |
| Trees planted                                      | 12,835   | 5,68,654  |
| <b>Education</b>                                   |  |   |
| Rural government schools improved                  | 98 schools benefiting 30,703 students            | 491 schools benefiting 1,42,137 students            |
| Orphans educated                                   | 734  | 15,00,831 committees in 128 villages                |
| <b>Model Communities</b>                           |  |   |
| Development committees established                 | 179 committees in 25 villages                    | 5,345   |
| Volunteers elected                                 | 10,23,246 villages                               | 1,605 villages                                      |
| Jaladanam centres                                  | 68   | 804   |
| Dust bins arranged                                 | 45,533   | 1,08,463  |
| <b>Health and Sanitation</b>                       |  |   |
| Health camp beneficiaries Helped pre and postnatal | 3250   | 15,260  |
| Family toilets built                               | 409  | 21,650  |

**Source:** Bala Vikasa Annual Report, 2014-15.

# Water Purification System and Water ATM in Jaigiri

The villagers approached Bala Vikasa to seek guidance to help them fight the water crisis looming large over them. Bala Vikasa assessed the possibilities of setting up a water plant and suggested the villagers form a Community Water Committee. The village leaders and the Village Development Committee (VDC) conducted meetings in the village and empowered the community on the clean and safe water issue. They decided to install a water purifying plant in their village. Contributions of ₹300 per household were made for the installation of the plant. A Community Water Committee was also constituted to monitor and implement the plan. Seeing the unity among the villagers, Bala Vikasa approved the installment of a 1,000-liters per-hour-capacity water purification machine.



**Figure 3.I: Water Purifying Plant in Jaigiri Village**



**Figure 3.2: Water Tanks in Plant with 1000 liters Capacity**

### **The Community Water Committee**

Jayagiri village has constituted a Water Committee for maintaining the water plant. Three men and two women are the members of this committee. A joint account has been created in the bank for depositing money generated from the water plant. All the households are registered with the water committee and have received an ATW (Any Time Water) card, popularly known as Water ATM, which is rechargeable with a minimum ₹100 to ₹150 per month. Villagers get 20 litres of water for ₹3, which is quite convenient for them. The village has ₹1,76,441 in their account as saving from this project. The Water Committee has appointed an operator paying a salary of ₹4000 per month to help facilitate the functioning.

To resolve any issue that occurs in relation to the working of the water plant or the water supply, a meeting is convened each month. The details of income and expendi-

ture of water plant are also discussed. If in case, a deeper investigation is required, a committee is constituted to look into the matter. A sum of ₹15,000 to ₹ 20,000 is generated from the water plant every month.

### **Technological Intervention in Place**

The water plant uses RO process for filtering the groundwater. In the RO process, water moves across a semi-permeable membrane in a container from lower to higher concentration of the solute by osmosis. Reverse osmosis occurs when higher solute (contaminated) water on one side of a semi-permeable membrane moves to the lower solute concentration under pressure generated by a pump yielding clean drinking water.



**Figure 3.3: RO Purifying System without Storage Tanks in Jaigiri Village Water Plant**

Unclean water is taken directly from the ground source, chlorinated and collected in a storage tank. The tank is connected to a pressurised sand filter and the water travels through the sand filter where large and small turbid particles including rust are trapped. The water then goes through a carbon filter. The carbon bed within the filter

removes colour, odour, organic chemicals, chlorine and fluorine from the water. Both of these beds are cleaned daily by performing a backwash on the system. This allows the trapped particles to be flushed out of the system. Once every year, this carbon bed will be replaced. The water then reaches the reverse osmosis system. A high-pressure pump increases the pressure to approximately 100 psi in order to perform reverse osmosis.

This is the final step of filtration as about 98 per cent of the dissolved solids are prevented from passing the semi-permeable membrane. Two separate streams are then formed from this step. One is of ‘clean water’ and the other is of highly contaminated ‘rejected water, which is drained out of the system. The stream of clean water then goes through ultraviolet radiation to kill the microbial organisms and ultimately enters the final storage tank as drinking water, ready for use. A panel is present indicating the following: the pressure inside the reverse osmosis system, the flow within the reverse osmosis system, the total dissolved solutes (TDS) of the water, the percentage of reject water and the total running time of the pump and system. The panel also includes an automatic switch to turn off the pump in case the pressure surpasses the needed levels.

#### **Any Time Water Systems (ATWs)**

- Provides access to clean and safe drinking water 24x7 resulting in 10% increase in consumption than before.
- Technology has reduced operation costs and work load.
- Dispensation of exactly 20litres eliminates wastage of water while filling water cans.
- Complete transparency in revenue recording as water is supplied only when the card is charged with money.

**Figure 3.4: Features of Any Time Water Systems (ATWs)**

## **Impact**

The availability of the purified water plant has led to easy and convenient access to potable drinking water at a relatively less cost. The people of the village are happy that they are now safe from health hazards, especially those related to fluorosis and bacterial infections. Earlier, they faced severe health problems like joint pains, fever, throat infection, etc., but after the installation of a water plant, all the residents are consuming purified water, which is available at better ease now. This has also reduced their expenditure on health problems and minimised visits to health centres. Having been able to resolve issues related to water, sanitation and health, they are grateful to Bala Vikasa for helping them emerge as a ‘model village’.

## **Points for Deliberations**

- i. The people in the village have resources and a grand pool of indigenous knowledge. They just require some technical know-how and training and things get moving. Observe such incidences on your next field trip and relate to the case.
- ii. Can there be any indigenous method of purifying water at the Household level? Explore such low-cost methods used by people.
- iii. Using “Nudge theory”, can a behavioural change be envisaged in the people living in rural areas to keep their water bodies clean?

## Case Study Four

### **Rekindling Hope by Reopening a School at Ontimamidipally**

**D**eveloping human resources in the country are the need of the hour and education has emerged as a key instrument for the same.

Government schools are still far-off in providing quality education in rural areas. They are mainly characterised by the lack of minimum infrastructure, inadequate teachers and poor sanitary conditions that keep the children away from schools. Since the last decade, government schools are closing down one by one due to low strength, parents being interested in private schools, etc. Colourful campaign flyers, multi-storeyed buildings, children in uniform attires of a tie, belt, shoes, school buses, etc., is the general picture of a corporate private school that has strongly cast a shadow on government schools.

The Government of India has been focusing on providing education, especially at the grassroots level through Sarva Shiksha Abhiyan. The Right to Education Act, which came into implementation in 2010, envisages free and compulsory education to all children in the age group of 6-14 years. This is designed to bridge the social, gender and regional gaps existing in the society. According to ASER (2017), only 43 per cent of the children between the age group of 14-18 were able to do simple division correctly, while 47 per cent of 14-year-old children could not read a sentence in English. Over the past years, a trend pertaining to school enrollment has been observed in the country. An increasing number of India's poor parents are now scraping together funds to send their children to low-cost private schools with the hope of helping them escape the vis-

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cous circle of poverty. Nationally, a large majority of students still attend government schools, but the expansion of private institutions has created parallel educational systems - systems that are now colliding.

### **The Right to Education Act**

The Right to Education Act envisages free and compulsory education to all children from 6-14 years of age. It aims to bridge the social, gender and regional gaps by providing education to all children.

Here, 'free education' means that no child shall be liable to pay any kind of fee or charge or expense which may prevent him or her from pursuing and completing elementary education. It makes sure that all children get age-appropriate admission. As they miss out on some classes, there is a provision of special training for them. The teachers help them to come up to par with the regular students. Community participation is also stressed upon so that school activities can be organised in a better fashion for people to perceive schools as an integral part of the society. A School Management Committee (SMC) is also constituted which includes both teachers and parents and decides upon the functioning of the school. They also develop a document that is called the 'School Development Plan'.

It lays down the norms and standards relating *inter alia* to Pupil Teacher Ratios (PTR), buildings and infrastructure, teacher-working hours, school-working days, etc. Accordingly, the Pupil Teacher Ratio is fixed at 1:30 for Primary Schools and 1:35 for Upper Primary Schools. The school makes sure that it has a barrier-free, all-weather proof building, classrooms, infrastructure facilities like separate toilets for boys and girls, playground, library, etc.

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## **Education Scenario in Telangana**

Education is not only a mechanism of enhancing efficiency, but is also an effective tool of broadening and augmenting democratic participation and upgrading the overall quality of an individual and the societal at large. The State emerged as a separate State in 2014 and has tread to the path of development at a stupendous rate. While the State of Telangana is making fast strides towards overall growth and development, education emerges as one of the key factors for its success.

| Table 4.1: Literacy Profile of Telangana State |                      |                   |
|--|----------------------|-------------------|
| S. No.   | Item                 | Number/Percentage |
| 1.   | Literates            | 206.97 Lakhs      |
| 2.   | Literates-Male       | 117.02 Lakhs      |
| 3.   | Literates-Female     | 89.05 Lakhs       |
| 4.   | Literacy Rate        | 66.54 per cent    |
| 5.   | Literacy Rate-Male   | 75.04 per cent    |
| 6.   | Literacy Rate-Female | 57.99 per cent    |

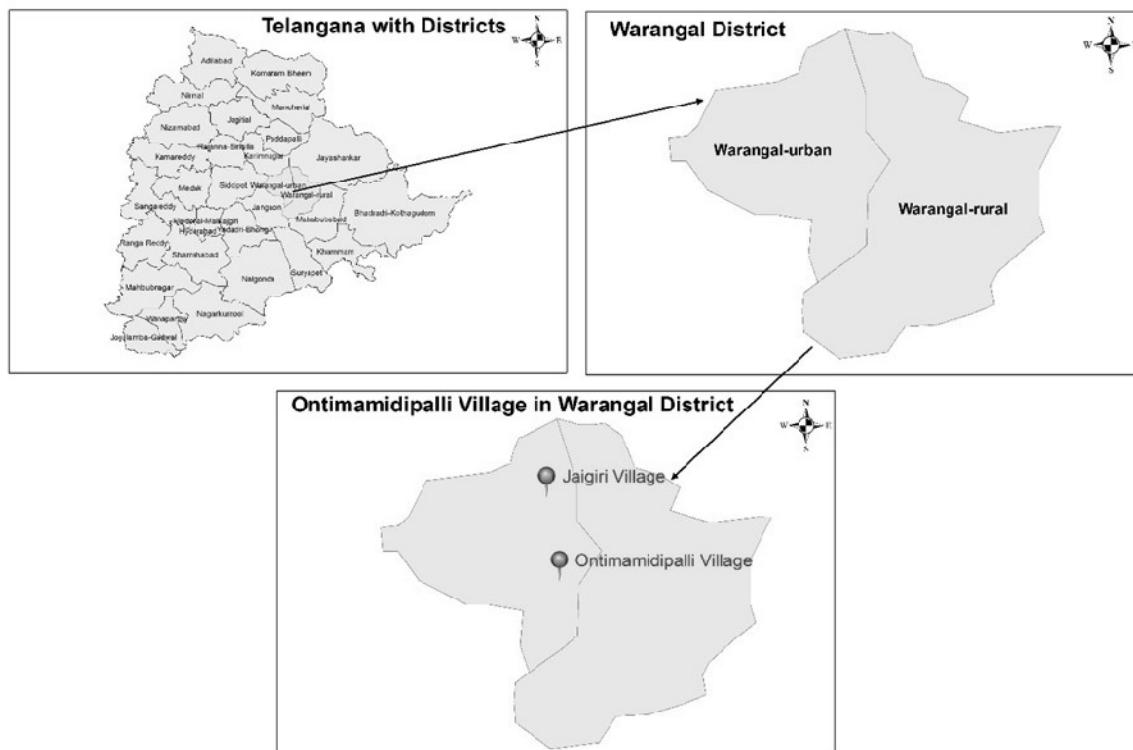
**Source:** Telangana State Portal.

The literacy rate of the State is 66.54 per cent in 2011 as against 58 per cent in 2001, whereas that of the district is 47.9 per cent. In Ontimamidipally, the people saw a decline in literacy rate and identified the issue collectively. They discussed the same with the team of Bala Vikasa, who had been supporting the village in many other dimensions. The team had some experience related to schooling as well. Having understood the importance of education, the people in the village came together to a consensus of re-opening a school that had been closed.

Bala Vikasa launched Vidya Vikasa (Education Development) programme in 2007-08 to improve the facilities in government schools in remote rural areas. Till date, a learning environment has been improved in 393 schools helping 1,11,434 poor children

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### **Map of Ontimamidipally (Map 4.1)**



to receive quality education (Bala Vikasa Silver Jubilee Souvenir, 1991-2016). Under this programme, the facilities provided are classroom furniture, library infrastructure, water and sanitation facilities, dustbins, compost pits, and shade-tree& fruit-tree saplings. Parents' Committees and Student-Teacher Eco-clubs are also formed. Awareness and motivation meetings are conducted in the villages ensuring the participation of the District Education Department and Gram Panchayat members. Regular training is provided to keep the committees motivated and capacitated in maintaining the new facilities. Students are sensitised through regular trainings on environmental sustainability, health, hygiene, sanitation and tree plantation, thereby transforming them into responsible citizens.

## Case of Ontimamidipally

Ontimamidipally is located in Warangal district and is about 140 kms from the State capital of Hyderabad. In this village, a particular government school was shut down from 2011 to 2015 due to poor infrastructure, lack of teaching staff and apparently a high drop-out rate of students. One reason that was also mentioned was that the school did not offer English as a medium of instruction. English is considered as a pre-requisite for most white-collar jobs in India. The people thought that the school was not meeting the needs of students as it was unable to give the cutting edge over other students who had the opportunity of availing education in English medium. This resulted in people sending their wards to other schools, which were at a considerable distance. For girl students, safety was a concern which in turn led to them staying back at home rather than taking the risk to reach schools. Also, the other schools available had a cost of education which again was a deterrent for many villagers. The main attraction for the people was the medium of English. Around 330 students from this village were attending 16 private English medium schools by paying approximately 5 million Rupees as school fees, plus the transport. It was not easy for many poor families, but they wanted their children to go to an English Medium School and hence were either selling their lands, mortgaging or borrowing funds. This was adding up to their economic burden in heaps and bounds.



**Figure 4.1: Ontimamidipally Reopened Government Primary School**

**Dr. Sonal Mobar Roy**

**Table 4.2: Year-wise Total Strength of the School in the Village**

| <b>S. No.</b> | <b>Year</b> | <b>Total Strength of the School</b> |
|---------------|-------------|-------------------------------------|
| 1.            | 2014-15     | 400                                 |
| 2.            | 2015-16     | 410                                 |
| 3.            | 2016-17     | 430                                 |

**Source:** Ontimamidipally School Records.



**Figure 4.2: New Building of the Reopened School**

### **Intervention by Bala Vikasa**

Over a period of time, the need for resuscitating the school was acknowledged. Lack of finance and manpower stood as a big hindrance for reopening the school. The local people were aware of the activities and initiations taken-up by the team of Bala Vikasa. They approached them for guidance and help. After the initiative taken by Bala Vikasa, the school was finally reopened in 2015. The reopening of the school was celebrated no less than a festival, with people bursting crackers and distributing sweets. It was a festive mood at Ontimamidipally of Warangal district because a government school reopened after a gap of three years. Bala Vikasa's team took stock of the situa-

tion and motivated the villagers to start a school in their own village which they could monitor, further facilitating quality education to their wards at a lesser cost. Through various rounds of discussions, the people in the village realised that they could come together and mobilise the functioning of the school. The Gram Sabha passed a resolution wherein it was decided not to send their children to private schools up to 7<sup>th</sup> class. As a result, the school was reopened and also upgraded to 9<sup>th</sup> class. It happened to be the first English medium government school from nursery to 9<sup>th</sup> class in the district. As a result of this unity and Bala Vikasa facilitation, currently 400 children joined the government school not just from Ontimamidipally, but also from the neighbouring villages.

All the villagers contributed ₹ 3,000 per household and created a School Development Fund (SDF). They also formed different types of committees to take care of the school activities, such as:

- i. **School Management Committee** – 21 Members (The School Management Committee members meet once in every 6 months and sometimes they meet suddenly to discuss emergency issues)
- ii. **Parents Committee** – 7 members (Parents Committee meetings were conducting every month and are also inspecting the school 2 to 3 times in a year to know the performance of the students in different activities).
- iii. **Students Committee** – 3 members (There are different student committees like the Discipline Committee, Sports Committee, Water and Sanitation Committee, etc.)

Every committee conducts regular meetings at the school. They conduct a School Management Committee meeting every year before starting the academic year.

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They prepare a budget for the academic year and shared the budget equally.

| <b>Table 4.3: Class-wise Enrolment of Students from LKG to Ninth Class for the Academic Year 2016-17</b> |                 |                       |             |              |
|--|-----------------|-----------------------|-------------|--------------|
| <b>S. No.</b>  | <b>Standard</b> | <b>Total Strength</b> | <b>Boys</b> | <b>Girls</b> |
| 1.   | L.K.G           | 22                    | 10          | 12           |
| 2.   | U.K.G           | 24                    | 12          | 12           |
| 3.   | First class     | 19                    | 10          | 09           |
| 4.   | Second class    | 25                    | 12          | 13           |
| 5.   | Third class     | 48                    | 29          | 19           |
| 6.   | Fourth class    | 29                    | 16          | 13           |
| 7.   | Fifth class     | 46                    | 14          | 32           |
| 8.   | Sixth class     | 36                    | 24          | 12           |
| 9.   | Seventh class   | 46                    | 22          | 24           |
| 10.  | Eighth class    | 40                    | 18          | 22           |
| 11.  | Ninth class     | 24                    | 12          | 12           |

**Source:** School Attendance Registers, 2016-17.

Looking at the enrolment rates, the school had to increase the number of staff as well. This school has 9 Government teachers, 5 Private teachers and 3 Ayah (Assistants). The private teachers and Ayahs are paid from the School Management Fund. The infrastructure of the school like benches, library and dustbins are also contributed from different sources and crowd funding.

## **Achievements**

Students are participating in different programmes like sports, academic competitions at all levels, etc. In 2016, 30,000 paper bags were manufactured and supplied in *Jathara* (the village festival). On the occasion of the Science Day, students displayed 100 experiments. To appreciate the efforts, District Education Officer (DEO) announced that the school secured second place in the district. In 2016-17, two students parti-

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pated in the *Khelo India* sports programme and won second prize.

## Role of School Management Committees

Community involvement in the form of Village Education Committees (VECs) for the management of elementary education has been visualised in the National Policy on Education, 1986. Sarva Shiksha Abhiyan (SSA) emphasises community ownership of school-based interventions through effective decentralisation. Under SSA and Right to Education Act, efforts have been made to mobilise the community to promote education, to help in the development of educational facilities and to oversee the functioning of schools. It advocates for community-based monitoring system with full transparency. It is mandated that every school should share all information with the community, including the grants received.



**Figure 4.3: The Board Highlighting English medium**

## **Role of Stakeholders**

It is essential to increase the size of the arc of progress related to education. The following are the main stakeholders in this discourse and each comes with their roles and responsibilities that need to be diligently fulfilled. Woefully, all the stakeholders' roles are in disdain.

- i. **Students:** The students are expected to attend school regularly and focus on studies. A lot of self-motivation is a pre-requisite for a successful rate. With the limited resources available in the schools, the students should follow the syllabus, complete assignments in time, make use of the library, playground, etc. They should be disciplined and ought to be following the stipulated rules and regulations.
  - ii. **Teachers:** The teachers are the main stakeholders as they are the ones who have the duty of shaping their future for nurturing young minds. They should be attending to all their duties without fail, make use of all resources available and inculcate creativity and imagination required for these young brains for complete development. With the discipline in place, the teachers should leverage the students for showcasing their inherent talents, avoid ridiculing them, or using of corporal punishment. They should attend the time-to-time training to update their skills. Also, it is the prerogative of the teachers to ally with parents and other stakeholders for bringing out the best in students.
  - iii. **Government:** The role of the government is basically to be the facilitator, be it for the infrastructure, materials, funds, skills, etc. The government has to make
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sure that all allocation of funds and benefits are done in due time and the students do not miss out on their schooling due to the unavailability of proper infrastructure, teachers, TLM, etc. They should provide a productive space that kindles passion, joy and yearning for learning. The atmosphere provided should allow students to identify their strengths, so that they can develop skills in the areas in which they have an aptitude for.

- iv. **Citizens:** The citizens here mean the community. They have an active part to play as they are the ones who would be sending their wards to the schools. They need awareness about the functioning of schools, and whether the teachers and staff are fulfilling their duties. This is done through active participation in the School Management Committees.

## **Barriers to School Education**

The barriers may emerge in a variety of forums, in various contexts. Some maybe quite evident, but others could be quite subtle. Physical and infrastructural barriers could be for unavailability of ramps for the differently-abled, no separate toilets for Children with Special Needs (CWSN), long-distance from the village to schools, graveyards, forests or highways near the school premises, or some water body near the school building. Even low-hanging high-tension wires pose a great threat. Shortage of classrooms, unavailability of library or playground, non-availability of Teaching and Learning Materials (TLM), no proper ventilation and lighting in classrooms, no furniture or even jute mats, rugged floorings, etc., are the inconveniences. Technical barriers would include no IT-enabled classrooms or even provision of basic computers, etc. Financial

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barriers would occur wherein there is a lack of budget to cater to the needs, repairs, buying TLM, training the staff, getting the toiletries, etc. Lastly, the attitudinal barrier would include challenges where teachers or peers do not exhibit favourable and congenial behaviour. This may also result in the lack of motivation. Corporal or harsh punishment could be a big impetus in demotivating children from coming to school or may even scar their lives deeply. Hunger and poor nutrition gravely impact education. Good nutrition is definitely a crucial key to learning and the government has been focussing on it through various schemes, especially the Mid-Day meal scheme.

## **Innovative Methods**

The school, after its reopening, has been following some innovative methods to run the school smoothly and attract a good number of pupils. Generally, all the schools in the vicinity start at 9:00 am and close at 4:30 pm but this school starts its day at 8:00 am and closes at 6:00 pm. This is because special classes are offered to students who require extra help in understanding the subjects. Every day, the students spend three hours writing essays, practicing arithmetics and reading books. Students are divided into three categories (A, B and C), based on the Comprehensive Continuous Education (CCE) assessment method, and the teachers assist them accordingly.

Students are made aware of the issues related to the usage of plastic, sanitation and hygiene. Digi-classes are encouraged in the school with the help of computer and internet connection. There is a programme called ‘World Word’, where three English, Hindi and Telugu words have to be learned every day. Every morning, in the school assembly, one student has to read important news from the newspaper and three abbreviations. Other good practices include students maintaining a diary, teachers writing homework in the daily diary, and the students are expected to get their parents to sign it regularly.

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There is an inspection by the Parent's Committee whenever they want to and they are allowed to conduct a surprise test for students to test their knowledge.

## **Impact**

The villagers have been able to save their expenditure on private schools. Their children are receiving good-quality education at a low cost. The students are exposed to State-level educational and sports competitions. The school has been upgraded to a high school and it attracts special interest from the government.

Appreciating the unity and efforts of the villagers and Bala Vikasa, the Deputy Chief Minister of the State, sanctioned an English medium school with seven teachers and four additional rooms. This school has become a model school that can inspire other villagers in Telangana to make their Government schools useful and effective. Many villagers from different districts like Mahbubnagar, Nalgonda, Karimnagar and from schools in the vicinity have visited the school and are planning to replicate the same in their village.

Education in India is one of the most pressing challenges. Improving accountability among all the stakeholders is a must. Rising educational levels have led to an improvement in skills, particularly amongst females (from 32.1 per cent in 1993-94, to 53.3 per cent in 2009-10) in India. It is always the poor and illiterate that continue to balk in unemployment and toil in poverty.

## **Points of Deliberations**

- i. Medium of instruction plays an important role in a child's education. Do you think English has dominated the educational discourse? Discuss.
  
  - ii. What are the issues to be kept in mind in designing K-12 frameworks in a rural area?
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**Dr. Sonal Mobar Roy**

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- iii. Can a PPP model improve service delivery of schools, thus improving the quality of education? Comment.

## Case Study Five

# Nurturing the NextGen through Arogya Lakshmi and Supplementary Nutrition Programme

### Introduction

Telangana is one of the few States where a separate Department is functioning for development and welfare of women and children. In many States, these come under the Social Welfare Department. The broad mandate of the Department is to focus on the holistic development of women and children. The Department has been efficiently implementing the world's largest and most unique outreach programme of Integrated Child Development Services (ICDS), providing a package of services comprising supplementary nutrition, immunisation, health check-up and referral services, pre-school non-formal education, etc.

### Background of the Programme

Nutrition is the most important service rendered under the ICDS programme. Supplementary food is being provided to pregnant and lactating women and children in 149 ICDS projects covering 35,700 anganwadi centres (main centres: 31,711 and mini centres: 3,989) in the State of Telangana. Under this, a special provision is made for pregnant and lactating women and children below six years to have supplementary nutrition. The Centre and State bear an equal cost burden for its implementation.

In the State of Telangana, traditionally under ICDS-Supplementary Nutrition Programme (SNP), nutritive food was being provided to pregnant and lactating women at the anganwadi centre as Take Home Ration (THR). As it has not resulted in the achievement of the desired goals, it was decided to provide one hot-cooked nutritious meal per day as spot feeding to pregnant and lactating women at the anganwadi centre itself to

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ensure that they consume food along with the Iron supplementation. This also helps in giving the required health and nutrition counselling to women when they come to the centre regularly. This ‘One Full Meal Programme’ was implemented in 81 ICDS projects covering 20,413 anganwadi centres for 2,86,173 pregnant and lactating women from the year 2013 onwards.

After formation of the State of Telangana, the programme is scaled up to cover the entire State and is currently implemented in all the 149 ICDS projects covering 31,711 main AWCs and 3,989 mini AWCs of the State in the name of ‘Arogya Lakshmi’ (one full meal to pregnant and lactating women) with improved nutritive values. The programme was launched by the Hon’ble Chief Minister on 1<sup>st</sup> January, 2015. The scheme is an improved version of the ‘Amrutha Hastham’.

**Table 5.1: Category-wise Coverage of Beneficiaries in Mahabubnagar ICDS Project**

| <b>S. No.</b> | <b>Category</b>              | <b>Boys</b> | <b>Girls</b> | <b>Beneficiaries</b> |
|---------------|------------------------------|-------------|--------------|----------------------|
| 1.            | 7 months to 1 years Children | -           | -            | 15,724               |
| 2.            | 1 year to 3 years children   | -           | -            | 43,197               |
| 3.            | 3 years to 6 years children  | 28,419      | 28,343       | 56,762               |
| 4.            | Pregnant women               | -           | -            | 13,822               |
| 5.            | Lactating women              | -           | -            | 13,060               |
| 6.            | Malnourished children        | 20,400      | 20,768       | 41,198               |

**Source:** ICDS Office, Mahabubnagar.

### **Arogyalakshmi Scheme**

According to the National Family Health Survey – III (NFHS-III), the percentage of low birthweight babies is 19 per cent, underweight children (<3 years) is 43 per cent,

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underweight women is 33.5 per cent and pregnant women who are anaemic is still high i.e., 62 per cent. As a result, the reduction of Infant Mortality Rate (IMR) and Maternal Mortality Rate (MMR) continues to be a challenge. Scientific evidence shows that malnutrition starts early in life and its effects become irreversible after 2-3 years. Meeting the nutritional needs of pregnant and lactating women is, therefore, one of the critical windows of opportunity available to prevent malnutrition.

To provide good health and nutritional food to pregnant women and children, the government of Telangana made changes to the earlier programme i.e., Take Home Ration (THR), provided to pregnant and lactating women. The Government of Telangana announced the ‘Arogyalakshmi’ programme which involves spot feeding of ‘one full meal’ for pregnant and lactating women at the anganwadi centre along with the administration of Iron & Folic Acid (IFA) tablet. There are three anganwadi centres in Zamistapur village, and the Arogyalakshmi scheme is being implemented in all these three centres.

## **Objectives of the Scheme**

- i. Enhance the quality and acceptability of supplementary nutrition by pregnant and lactating women
  - ii. Ensure that pregnant and lactating women consume 90+ IFA tablets.
  - iii. Eliminate or decrease the number of pregnant and lactating women with anaemia/ who are undernourished.
  - iv. Ensure that pregnant and lactating women receive health check-ups and immunisation.
-

- v. Reduce the incidence of infant mortality and maternal mortality.

**Table 5.2: Quantity and Nutritive Value of Spot Feeding of Pregnant and Lactating**

| <b>Women</b>      |                                  |                             |                          |                        |                     |
|-------------------|----------------------------------|-----------------------------|--------------------------|------------------------|---------------------|
| <b>S.<br/>No.</b> | <b>Name of the Food<br/>Item</b> | <b>Quantity Per<br/>Day</b> | <b>Energy<br/>(kcal)</b> | <b>Nutritive Value</b> |                     |
|                   |                                  |                             |                          | <b>Protein (g)</b>     | <b>Calcium (mg)</b> |
| 1.                | Rice                             | 150g                        | 517.56                   | 10.20                  | 15.00               |
| 2.                | Dal (red gram)                   | 30g                         | 104.40                   | 7.25                   | 22.50               |
| 3.                | Oil                              | 16g                         | 144.00                   | -                      | -                   |
| 4.                | Egg (30 egg)                     | 50g                         | 100.92                   | 7.76                   | 35.00               |
| 5.                | Milk (30 days)                   | 200 ml                      | 273.00                   | 10.03                  | 490.00              |
| 6.                | Vegetables                       | 50g                         | 52.50                    | 1.80                   | 16.06               |
|                   | Total                            | -                           | 1192.38                  | 37.04                  | 578.56              |

**Source:** Department of Women Development & Child Welfare/Arogyalakshmi.

Table 5.2 shows the food items given along with their nutritive value under the spot feeding programme.

**Table 5.3: Menu of One Meal in Arogyalakshmi Scheme**

| <b>Day</b> | <b>Item 1</b> | <b>Item 2</b>             | <b>Item 3</b>               | <b>Item 4</b> | <b>Item 5</b> |
|------------|---------------|---------------------------|-----------------------------|---------------|---------------|
| Day 1      | Rice          | Sambhar with vegetables   | -                           | Egg curry     | Milk (200ml)  |
| Day 2      | Rice          | Dal (red gram)            | Green leafy vegetable curry | Egg           | Milk (200ml)  |
| Day 3      | Rice          | Dal with leafy vegetables | Egg curry                   | Egg           | Milk (200ml)  |
| Day 4      | Rice          | Sambhar with vegetables   | 100ml curd                  | Egg curry     | Milk (200ml)  |
| Day 5      | Rice          | Dal (red gram)            | Green leafy vegetable curry | Egg           | Milk (200ml)  |
| Day 6      | Rice          | Dal with leafy vegetables | 100ml curd                  | Egg           | Milk (200ml)  |

**Source:** Department of Women Development and Child Welfare/ArogyaLakshmi

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In table 5.3, the menu of a meal served under the scheme has been shown.

## **Key Elements of the Programme**

As mentioned on the official website of the Department of Women and Child Welfare, Government of Telangana, the key elements of the programme include certain points that need to be catered to while it is implemented. One full meal consists of rice, dal with leafy vegetables/sambar, vegetables for a minimum of 25 days, boiled egg and 200ml. milk for 30 days in a month. One full meal will meet 40 per cent-45 per cent of the daily calorie and 40 per cent-45 per cent of protein and calcium requirement per day of pregnant and lactating mothers. Along with the meal, Iron Folic Acid (IFA) tablet is to be administered. Sixteen eggs per month are being distributed to children between 7 months to 3 years, whereas children between 3-6 years are given 30 eggs per month. Weight has to be monitored and regular counselling is to be given to the pregnant and lactating mothers.

## **One Full Meal Committee and Responsibilities of the Committee**

A committee constituting eleven members called the ***Anganwadi Level Monitoring & Support Committee*** (ALMSC) shall be constituted for each AWC. This committee consists of the following members:

**Table 5.4: Structure of ALMSC**

| S. No. | Representatives   | Designation |
|--------|---|-------------|
| 1.     | Sarpanch or ward member preferably women  | Chairperson |
| 2.     | ASHA  | Member      |
| 3.     | Mothers (2 members on rotation pregnant and 7m to 3y)                                     | Members     |
| 4.     | Community (science teacher/retired government officers/ parents of pre-school children-3) | Members     |
| 5.     | Sakhi under SABLA programme/adolescent girl   | Member      |
| 6.     | Two representatives from the village organisation   | Members     |
| 7.     | Anganwadi worker  | Member      |

**Source:** Website of Department of Women Development and Child Welfare, Government of Telangana.

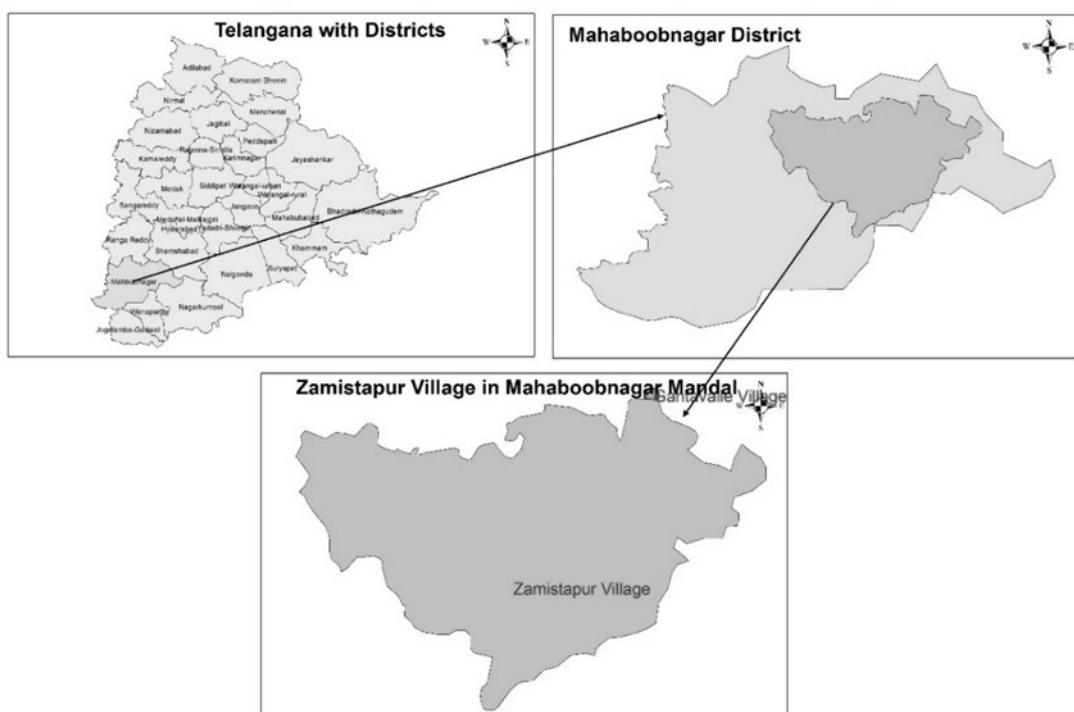
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## **Responsibilities of the Committee**

- ◆ The committee shall meet once in a month on the first Nutrition Health Day (i.e., the first of every month) and create awareness on one Full Meal Programme.
  - ◆ Ensure correct demand and supply of food grains such as rice, dal, oil, eggs, milk, vegetables, etc., to the AWCs.
  - ◆ Identify milk vendors or chilling centres where central procurement is not available.
  - ◆ Mobilise all eligible beneficiaries to the AWC.
  - ◆ Ensure no beneficiary carries the meal home or allows it to be consumed by any other family member.
  - ◆ Fix the menu and timing of spot feeding.
  - ◆ Ensure the attendance, quality, hygiene and other aspects of the programme.
  - ◆ Certify the attendance registers of anganwadi centres for account reconciliation.

## **Map of Zamistapur (Map 5.I)**

**Location Map of Zamistapur Village, Maboobnagar Mandal, Telangana**



## Village Profile

Mahbubnagar district is one of the drought-prone districts in Telangana State. In this district, seven ICDS projects are implemented covering 1,889 anganwadi centres and among them, 1,736 are main centres and 153 are mini centres. The total number of beneficiaries under the Arogya Lakshmi is shown in Table 5.5. Arogya Lakshmi scheme is being implemented in Zamistapur in Mahabubnagar mandal in Mahabubnagar district of Telangana State. The total number of beneficiaries of Arogya Lakshmi in Zamistapur village is 97. The total number of households in the village is 262. The total population is 1,000 (male population is 508, female population is 492). The Scheduled Caste population is 312, the Scheduled Tribe population is 10 and the Backward Class population is 678.

**Table 5.5: Beneficiaries of Arogyalakshmi Scheme in Zamistapur**

| S. No. | Category           | Beneficiaries |
|--------|--------------------|---------------|
| 1.     | 1-3 years children | 29            |
| 2.     | 3-6 years children | 35            |
| 3.     | Pregnant women     | 16            |
| 4.     | Lactating women    | 17            |
|        | <b>Total</b>       | <b>97</b>     |

**Source:** Field Data, Zamistapur.

Examining through all statistics at the district level, Zamistapur village emerged as an exemplar village regarding the performance of Arogya Lakshmi Scheme. To highlight the effectiveness of the programme, some snippets from the field have been incorporated here.



**Figure 5.1: Arogyalakshmi Scheme Implementation in Anganwadi Centre in Zamistapur**

### ***Snippet One***

Manjula (name changed), pregnant woman, aged 24 years, has been availing the benefits of Arogya Lakshmi scheme since the time of her second pregnancy. During her first pregnancy, there was no such scheme. According to her medical reports, she was quite weak and anemic back then. Even her first child was born in distress. She had low lactation and her body took quite some time to recover after the first delivery. The second pregnancy came in soon after. This time, she was told about the Arogya Lakshmi scheme by an ASHA. She was registered and it was made sure that she was eating the food on the spot. During her second pregnancy, she made use of all the food items given to her under ICDS. The 'Take Home Ration' was no doubt a good scheme, but the people were taking these provisions and mixing it with other items to feed their families. But this time, because of the Arogyalakshmi scheme, which provides on-the-spot feeding

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of ‘one full meal’, she is having proper food in time. It also was evident in her better health status.

### ***Snippet Two***

A three-year-old little girl has gained a good weight since her mother started feeding her under ICDS. Having met the height and weight standards, the girl is able to stand and hold things properly. Initially, due to her malnourishment, she was often lying on the floor and did not seem to be active at all. This not only saddened her parents, but also led to the fear that she might become handicapped. The ANM in the village took stock of her and made sure she received due nourishment. A little over 8 months of taking regular food under the scheme, the little girl is now unstoppable.

The Arogya Lakshmi scheme provides weekly health check-ups to the children, pregnant and lactating women. Health check-ups include weight checking, monitoring of blood pressure and nutritional intake. Under this scheme, pregnant and lactating women are given iron and folic tablets along with the regular one full meal. Children between the age of 1-3 years are taught rhymes and 3-6 years are provided primary education.



**Figure 5.2: A Pregnant Women Checking Weight in Anganwadi Centre**



**Figure 5.3: Children between Age 1-6 years and Pregnant and Lactating Women Beneficiaries**

## **Bottlenecks**

Though the scheme is highly beneficial for both the mother and child, especially, those hailing from rural areas, there are certain challenges that inhibit the success of this programme. In rural areas, various totems and taboos are acknowledged post-delivery. Many a time, it is the customary rituals that prohibit a mother from availing such food. Also, lack of awareness and a high level of ignorance play a dampener. The traditional mindset and attitudinal issues require to be resolved with patience and empathy. The old ladies in the village or the mother-in-law do not accept a practice where a daughter-in-law receives special attention. Such negativities and stigma affect the success of this programme. Social dynamics also impact negatively as food cooked by a lower caste person is not accepted by upper caste people.

## **Enablers**

The scheme has been successful and has led the village on being recognised as a 'model village'. Regular monitoring and supervision have led to the emergence of this

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good practice. The regular training received by ASHA and ANM has yielded quality in service delivery. The community members, especially the women and children have benefitted the most and have come forward to make use of this government scheme.

### **Points of Deliberations**

- i. Raising awareness at the grassroots level is essential for people to seek the benefits of government schemes. Design a strategy for propagating health benefits in a rural area.
- ii. Identify the key factors for the success of a government scheme, especially in a rural setting.
- iii. Apart from the pre/post-natal health check-ups, how can the people in the village be motivated to seek check-ups for highly stigmatised diseases such as HIV/AIDS and Tuberculosis? Discuss.

## Case Study Six

# **Waste to Wealth: Converting Solid Liquid Resource Management (SLRM) at Ambikapur**

### **Introduction**

It is true that our society cannot bear any sort of resource being wasted any further. For several years, we have seen wastage of water and electricity in our day-to-day life. The environment depends on nature, and if anything happens, it has its ripple effects on the environment, destroying nature, water, land, air and causing pollution. The municipal solid waste is very harmful to human beings and other creatures. Despite laws requiring proper waste disposal and the protection and preservation of bodies of water, people stubbornly dump their garbage into drainage canals, creeks, rivers, streets, and other public places. Effective mechanisms to deal with unavoidable waste will remain necessary, but much greater attention must be directed to the introduction of preventative strategies aimed at waste minimisation.

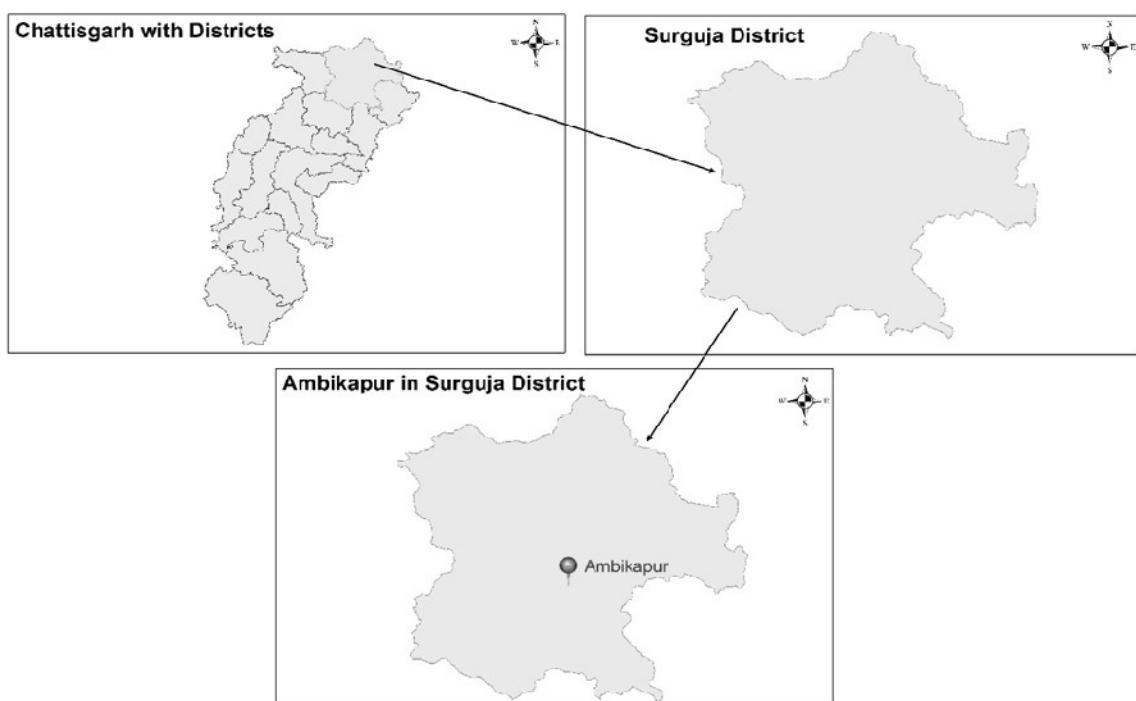
### **Ambikapur SLRM**

Ambikapur is the capital of Sarguja district in Chhattisgarh State in Central India. It has a population of 1.25 lakh(Census - 2011).Ambikapur district in Chhattisgarh State is the first municipal corporation in India to digitise garbage management, and make the city 'dustbin free' and convert 'garbage into gold' by employing poor women. This model has inspired the Chhattisgarh Urban Development Department and they have decided to replicate this model across the State. The idea of converting garbage into resources might not be new, but succeeding in implementing it is a big task. The project is called 'Swachch Ambikapur' and it was born from the initiatives taken by the District Collec-

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tor. The District Collector took note of the issue and convened a meeting which was addressed by Shri C. Sreenivasan of the Indian Green Service, Vellore, who was invited as a Resource Person. In that meeting, all the participants agreed that the situation was pathetic and there should be an alternative way. The District Collector conducted a meeting in 2015 to address the situation related to waste management. The meeting concluded by seeking Shri Sreenivasan's suggestions for setting up an alternative model for solid waste management.

**Map of Ambikapur (Map 6.1)**



## **Objectives of the SLRM Project**

- ◆ The objectives of the project are two-fold and as follows:
  - i. The primary objective was to put in place a system for door-to-door collection of solid waste from homes and commercial establishments in Ambikapur, and to practice scientific disposal of the same.

ii. The secondary objectives included the following:

- ◊ To design an alternate, community-based approach to solid waste management.
- ◊ To design a model that is principally owned and run by women.
- ◊ To explore livelihood opportunities in solid waste management, especially for women.
- ◊ To sensitise the public in Ambikapur on the importance of civic cleanliness.
- ◊ To introduce the system of primary segregation of refuse from domestic and commercial establishments as (a) organic and (b) inorganic refuse.
- ◊ To introduce the regime of beneficiary-charges (colloquially called ‘user charges’) for municipal solid waste management, eventually to put this civic service on a 100 per cent cost-recovery mode.
- ◊ To make the task of solid waste management a safe and honourable occupation for the workers.



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**Figure 6.1: Head SLRM Centre in Thanganpara, Ambikapur**

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The administration analysed the expenditure of Municipal Corporation on sanitation and realised that the expenditure was constantly increasing without fruitful results. In the past year, the corporation had spent ₹ 490, 523, 551 lakh approximately. Beginning from Ambikapur city, Surguja, the District Collector took lead and lined up a Municipal Corporation that arranged for training, general awareness with participation of citizens, selection of needy women from self-help women groups, etc.

There are 17 SRLM centres in Ambikapur. They provide accommodation for 446 women members. Municipal Corporation of Ambikapur gives salaries to all members of the SRLM project. Each member receives an amount of ₹5,000 per month.

All the capital investment was borne by the Municipal Corporation. The members were provided uniform, face mask and hand gloves by the corporation for their safety. The groups were federated into a Society named *Swachh Ambikapur Mission Sahakari Samiti Maryadit*. This is the legal identity of the community structure. The Society has entered into an agreement with the Ambikapur Municipal Corporation. This agreement provides a legal mandate to the Society to do the work of solid waste management.



**Figure 6.2: Women Members with Tri-cycle collecting Waste from Door-To-Door**

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Apart from the core task of waste management, the women were to collect beneficiary charges (the local term is ‘user fee’) from the serviced homes and commercial establishments. This task involves generating and issuing an e-receipt from a handheld, battery-operated computing device. The women were trained in using these devices.

The user fee is collected in different categories; the user fee is ₹50 per house, ₹100 per shop, ₹500 per hotel and ₹1000 per hospital/ashrams per month. The income generated from waste solids was approximately ₹ 3 to 3.5 lakh per month. This project is implemented in all 48 wards of Ambikapur municipality. The domestic refuse is collected at every doorstep using 34 rickshaws. Each tri-cycle used to collect the waste has a team of four members.

### **SLRM Centres**

The SLRM Centre is the hub of the entire project. It is an industrial work shed built on an open land, fenced on all sides with a broad gate on the front side. The area of the land is around 3,000 - 5,000 sqft. The area of the shed is around 1,500 sqft. The Centre has an RCC structure. It has been designed to ensure abundant light and ventilation. There is a four-feet wall, over which a wire-mesh has been fixed. The wire-mesh is supported by a green net to ward-off the nuisance of vectors (flies/mosquitoes). The work floor is cemented and each Centre has a store room and a changing room.



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**Figure 6.3: The SLRM Center at Kalapara in Ambikapur**

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Ambikapur SLRM project is the first centre that has succeeded in digitising the garbage data. For digitising the data, garbage collecting team supervisors are provided with a tab and a bluetooth printer. The workers upload information on the quantity of solid and liquid garbage collected every day and receipt is issued by the server and is printed on the spot. Statistics about the staff, individual user, area, category of waste, daily collection of waste, user charges, etc., are always available in the server.

### **Segregation of Garbage**

The project is self-driven and every SLRM centre has CCTV cameras installed on the premises and are monitored from the central data centre. The solid waste has been segregated in three stages, the first being at the household level. Segregation stated through red and green boxes are given to each house. The red box can be used for dumping inorganic waste like paper, cardboard, plastic, electric wires, glass, metal, rubber, bottles, footwear and the green box can be used for organic waste like vegetables, garden leaves, meat leftovers, food, coconut, tea and wood. Sanitary pads and diapers are supposed to be covered in paper and kept in the red box which would be buried for permanent disposal.



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**Figure 6.4: Collected Solid Waste Segregation at SLRM Centre**

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The waste collected at every doorstep is brought to SLRM centres. The workers separate the recyclable, organic and non-recyclable items and pack each one separately. The separately packed items are sent to central park for tertiary segregation of plastic, metal and electronic items. Organic waste like leftovers is fed to cattle, ducks and hens at the centre, while other remains are used for bio-gas digester and composting.

The earlier dumping yard is converted as a central park (central treasury), from where all the segregated items are sold as inputs to various manufacturers.



**Figure 6.5: Reclaimed Dumping Yard (Central Treasury) and Inside the Treasury**

The total wastes, both inorganic and organic are categorised into 54 categories and several sub-categories of paper, plastic, electric goods, etc., which are further sold for recycling to manufacturers at Ambikapur and Raipur.

## **Impact**

The SLRM project of Ambikapur accounts for more than 400 women members holding a green job. Impetus in social status has been achieved with a separate dress code and safety gears which give them identity and pride. The women have become economically stronger and are now much empowered with this project. The administration also made an earnest attempt to include the former rag pickers in the new system to give them a new phase of life. Municipal Corporation of Ambikapur has saved 50 per cent of expenditure on solid waste management and 41 per cent of the transport costs. Socially, the city has responded uprightly to the issue of solid waste management. The citizens have been sensitised to the issues involved. The perspective on 'waste' has changed to 'resource'. This is reflected in reports of the women workers that some of the families have started recovering inorganic items at home for sale in due course, and stopped passing it out as waste.

## **Conclusion**

SLRM model is very viable, environment-friendly and economically-sustainable. Since women are the members of this project, it has served as an agent for women empowerment and emerged as a replicable model.

## **Points of Deliberations**

- i. Fool-proof garbage management can have a favourable impact on biodiversity and livelihood. Comment.
  
  - ii. The combined efforts of the government and the community can result in the success of any intervention. Identify such occurring in your next field visit and document.
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**Dr. Sonal Mobar Roy**

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- iii. Harnessed social capital and appreciated social mobility are two outcomes of such a model. Do you think such interventions across the nation can help reduce inequality and assist people to cross the threshold of poverty? Discuss.

## Case Study Seven

# Medical Aid on the Call- AWISH – Telemedicine

### Introduction

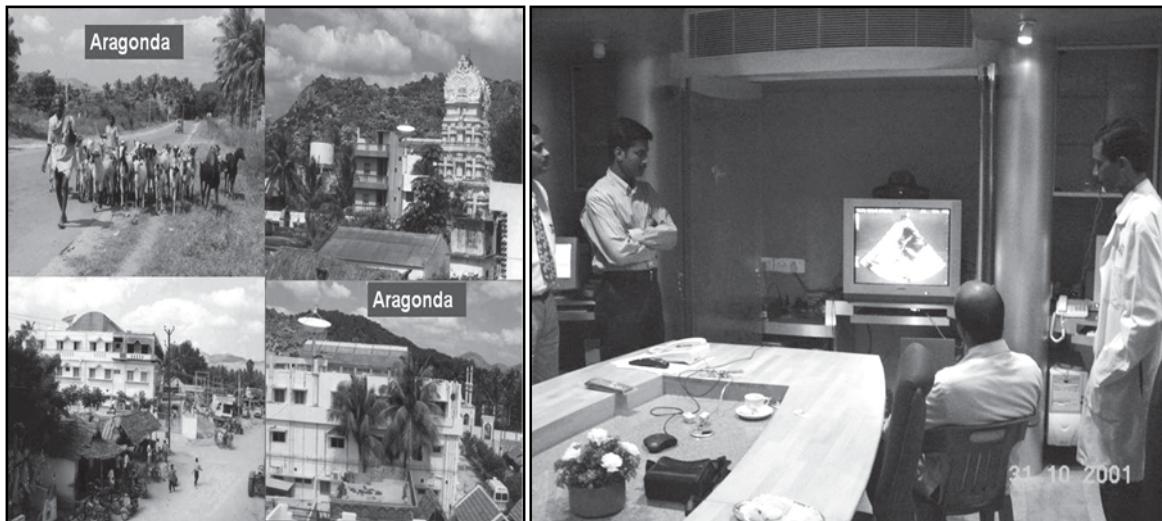
Even though India is a developing country, the health care system is deeply-rooted in its rich culture, traditions, and knowledge. Provision and access to health care to the population in the rural area are pretty pitiable. Presently, there are few qualified healthcare personnel in rural India. For most of the common ailments like fever or gastroenteritis, people depend on traditional remedies or on quacks who call themselves registered medical practitioners. The medical knowledge of these quacks is very limited and the treatments they provide may push the patients into dangerous situations. Urban India has a surplus of doctors who are sub-optimally employed due to their reluctance to move to rural areas. Herein, to utilise urban doctors to reach the under-served rural patients through telemedicine, and in association with a proven retail clinic concept, is the idea that proved to work and is discussed henceforth.

### Telemedicine

The concept of ‘Telemedicine’ is gaining popularity across the globe. Telemedicine is a term encompassing all methods used to examine, investigate, monitor and treat, with the patient and doctor, physically located in different places, transferring the expertise.

The world’s first clinical telemedicine was started in Aragonda, a village in Andhra Pradesh on 24<sup>th</sup> March 2000 by the then US president Bill Clinton. Clinton remarked that “*I think it is a wonderful contribution, to the healthcare of the people living in villages. I hope that people all over the world will follow your lead so that the benefits of hi-tech*

*medicine will go to everyone and not just those who live in big cities.”*



**Figure 7.1: Very Small Aperture Terminal (VSAT) Enabled Hospital at Aragonda Village and Live Echocardiogram from Aragonda being Viewed by a Cardiologist in Chennai**

But their main focus is on tertiary care advice like cardiology, neurology, oncology and tele-radiology. Primary healthcare advice is not on their agenda since it is neither financially viable nor relevant to their facilities. Initially, satellite communication technology was used for telemedicine. In July 2016, the Union Ministry of Health signed a Memorandum of Understanding (MoU) with ISRO to expand its telemedicine network to remote places. “*The primary focus of such initiatives is to provide health care accessibility in distant areas, rural communities and pilgrimage centres,*” said Director (eHealth), Ministry of Health.

The following are some of the telemedicine centres developed by different institutions and doctors:

- i. School of Telemedicine and Biomedical Informatics
- ii. E- Baithak: Videoconferencing Solution, IIT Kharagpur

- iii. Telemedicine Mobile Bus
- iv. Common Services Center Scheme (CSC) Locator
- v. Arvind Eye Care Telemedicine
- vi. Shankar Netralaya Telemedicine
- vii. Onconet Telemedicine
- viii. Apollo Telemedicine Networking Foundation (ATNF)
- ix. World Health Partners
- x. AIIMS Telemedicine
- xi. SATHI
- xii. Narayana Hrudayalaya – Teleradiology
- xiii. National Resource Center
- xiv. Telemed India
- xv. eVaidya

### **AWISH Telemedicine**

It has been developed so that the initial telehealth services be made operational in the field of medicine, orthopaedics, respiratory and cardiology disciplines. Dr. K. Vijaysekhar Reddy and Dr. Lalitha Reddy identified the delivery of primary health-

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care advice as their primary concern, as this underserved area was on nobody's agenda or seen as a priority. They tried to develop a model that was affordable to the poor rural population and at the same time, sustainable in the long term. As the country is vast, to reach the majority of people, they decided to develop a model that was easy to scale up. A pilot project, with an affordable, scalable model was implemented. The project is named "Awish" which means "to reach" in Sanskrit.



**Figure 7.2: Awish Telemedicine Centres**

First, they started AAWISH as a pilot project in a remote rural centre with a population of 5,000 people and a catchment population of another 5,000-6,000 people was selected. This place had one government sub-health centre which was perennially non-functional. The pilot centre was started in a space of 500ft, with the equipment, a computer with a camera, scanner-printer, LED TV, headphones, a digital blood pressure apparatus, pulse oximeter, digital thermometer, ECG machine and clinical lab equipment. A licensed EHR and video software with cloud support, point-to-point dedicated broadband connectivity provided by BSNL was used. The facility has a pharmacy and is staffed by a tele-coordinator, pharmacist, lab-technician, Auxiliary Nurse Midwife and cleaning

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staff. The initial capital expenditure was approximately ₹ 8 lakh with a monthly running cost of ₹ 86,000.

They reviewed the project after six months and found that the telemedicine concept involved a greater expenditure. It took time to seek acceptance by the people and was not sustainable nor was it scalable. They decided to redesign and the objective changed to creating a low-cost, efficient, sustainable and scalable healthcare delivery, based on the lessons learnt from the pilot.

### **Revised Model of Awish**

An innovative concept ‘Awish Retail Clinics’ evolved based on a ‘store-in-store’ concept consisting of a teleclinic with a licenced pharmacy. A 4ft by 4ft space is earmarked for this purpose. The telemedicine hardware with LED TV and a printer is installed, with the patient’s chair in front of the TV monitor. A licensed pharmacy with broadband connectivity is mandatory. The pharmacist is trained to handle the telemedicine hardware and to record basic data like pulse rate, Blood Pressure and temperature with digital equipment. When the patient walks in, preliminary details are entered in the Electronic Health Record (HER), which is customised to minimise the data entry process. The cost of the equipment has come down to US\$ 1,200. The only monthly recurring cost is US\$ 25 for the internet connection.

Awish telemedicine started with six centres which are at Katangur and Thirumalagiri villages in Nalgonda district, Nelakondapalli village in Khammam district, Koilkunda in Mahabubnagar district, Nakrekal in Suryapeta district and Tarigoppula in Warangal. As on date, the operating retail teleclinics increased to 10 centres.



**Figure 7.3: Awish Telemedicine Centers of Katungar and Koilkonda Performance**

The usage of the Awish telemedicine centres has increased because of the patient-friendly approach. The average number of patients visiting the centre is 20 per day. The pharmacist had an average turnover of US\$ 3.00 per patient seen, which increased his profits with a minimal investment. As an innovative service provider, the pharmacist's relevance in the local community increased. On the whole, the revised model has shown very encouraging results. The people have found the idea quite innovative and its success is shared through word of mouth. Even in odd hours, people are able to consult a doctor through tele-mode. Digitalisation has also made the whole process accurate and transparent.

### **Benefits of Telemedicine**

- ◆ Transport cost and man-hour savings were significant as an average patient needed to travel 10 km to get reasonable medical advice.
- ◆ Specialist medical services to the underserved rural population.
- ◆ Specialist consultation through telemedicine from the main centre.
- ◆ Patient can obtain medical advice at their nearest centre which helps in preventing long-term complications.
- ◆ Regular reviews of chronic diseases like diabetics and hypertension can be done.

- ◆ Follow-up of post-operative patients.
- ◆ Decentralisation and regionalisation of medical services.

## **Conclusion**

Primary health care provided by the government in rural areas is inadequate for people. The concept of telemedicine has been adopted by bigger players, but it is more of tertiary care advice. Telemedicine in primary healthcare is a novel and useful idea for the rural population. The model of 'Awish Retail Tele-clinic', a store-in-store model, with minimum investment has proved to be a viable and scalable model with significant social benefit. This model appears to be sustainable as a social enterprise.

## **Points of Deliberations**

- i. Technological intervention in the healthcare delivery system has shown positive results. Observe such interventions on your next visit to a rural setting and critically evaluate its performance.
- ii. Keeping the eco-social theoretical discourse in mind, discuss the indigenous health systems of the Tribals.
- iii. Access to telemedicine centres may facilitate patients suffering from stigmatised diseases such as HIV/AIDS and tuberculosis to seek treatment in a fearless manner. Discuss.

## **Case Study Eight**

# **Going the Organic Way: Organic Farming at Ontimamidipalli**

### **Introduction**

**A**griculture is the backbone of Indian economy and India ranks second worldwide in farm output. During the early days of Independence, Indian economy faced a food security problem. To overcome the challenge, the government had announced and implemented several programmes. Among them, the green revolution in 1960s has been regarded as the most successful one. Even though it solved the problem of food production, it made most of the farmers dependent on chemical fertilisers and pesticides and degraded soil fertility and environment.

It is reflected in various studies that the high usage of modern fertilisers and pesticides for the high production of grains, results in negative effects like reduction in productivity and deterioration in the quality of natural resources. Due to the adverse effects of green revolution, there is a growing interest among the farmers and scientific community in finding an alternative system. They found that traditional farming which is purely organic in nature is best for reducing adverse effects caused by chemical inputs. Fortunately, many of the farmers still know the skills of traditional farming and some farmers are still practicing the same in both the States of Telangana and Andhra Pradesh.

### **Background**

Since January-1994, with the ‘Sevagram Declaration’ for promotion of organic agriculture in India, organic farming has grown multi-fold regarding the same and a number of initiatives at the Government and Non-Government levels have given it a clear direction. With negative effects of modern agriculture in mind, many farmers put great

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efforts to learn organic farming throughout the country. In India, Sikkim is the first State that has achieved 100 per cent organic farming. According to the Bureau of Indian Standards-2016, “*Organic agriculture is a system of farm design and management to create an ecosystem, which can achieve sustainable productivity without the use of synthetic external inputs such as chemical fertilisers, pesticides and synthetic hormones*”.

## **Organic Farming**

Organic farming is rapidly growing in developing countries of the world. It has contributed to sustainable development of agriculture. After a tumultuous use of pesticides and fertilisers, people have come to realise the harm that was done in the long run. Organic farming refers to agricultural production systems reliant on green manure, compost and biological pest control and crop rotation to produce crops, livestock and poultry. It is dependent on developing ecological biodiversity, and ensuring meaningful maintenance and improvement of soil fertility. By all necessary means, organic farming does not allow the use of synthetic chemical fertilisers, antibiotics, herbicides or pesticides.

*“Organic farming is a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity. It emphasises the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. This is accomplished by using wherever possible, agronomic, biological, and mechanical methods as opposed to using synthetic materials, to fulfill any specific function within the system.” (FAO/WHO Codex Alimentarius Commission, 1999).*

Organic farming is an agricultural practice aimed at attaining a balanced ecological production management system that encourages and improves soil biological activity and biodiversity. It involves minimum use of synthetic chemicals and inputs outside the farm, while ensuring management practices that preserve, replenish and enhance ecological

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stability. The various advantages of organic farming include maintaining environmental health by reducing the level of pollution, improving soil health, ensuring optimum utilisation of natural resources for short-term benefit and helps in conserving them for the future generation. Organic farming improves granulation of soil, good aeration, easy root penetration and reduces erosion. The approach towards promoting organic farming has taken a leap in recent years.

### **Bala Vikasa's Efforts**

Every year, hundreds of farmers are committing suicide as a result of increased debt and the numbers are increasing every day. This is a serious situation that requires an urgent response. Bala Vikasa strongly believes that the promotion of organic farming is one best solution. Initially, when the programme was launched in 2009, only 75 farmers participated. Today, there are hundreds of farmers from 23 villages who have adopted chemical-free cultivation. By using locally available organic material like cow dung, urine and other alternatives to chemical inputs, it has been proved that farmers can considerably reduce their crop investment costs and increase their profits apart from providing healthy food products to the consumers (Bala Vikasa Souvenir, 1991-2016).

Bala Vikasa encourages farmers to make the transition from chemical farming to organic farming through meetings and training. As a result, currently, 380 farmers have opted organic farming, 1000 farmers from 22 villages participated in the convention titled 'Organic farming for Development' (Bala Vikasa Annual Report, 2014-15).

### **Village Profile**

Organic farming started with 15 farmers in Ontimamidipally village in Inavolu-Mandal in Warangal district of Telangana State in 2002 with the support of Bala Vikasa. The total households in the village are 350, and the total population is 3,500 out of

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which the male population is 1,800 and the female population is 1,700 (Gram Panchayat Office data). It is one of the model villages of Bala Vikasa organisation. The village has 3,500 acres (Bala Vikasa Field Officer, 2017) of agricultural land and all the farmers depend on the locally available water resources such as wells, ponds and borewells for cultivation.

Meanwhile, Bala Vikasa team had also helped the residents of the village in desilting the village river (Ellamma Cheruvu). The process had yielded a very productive silt. Bala Vikasa motivated the village farmers to take excavated silt of Ellamma Cheruvu to their field and they explained the benefits of adding the same to the soil. After completing the de-siltation of the village tank, Bala Vikasa's field officers organised several meetings and educational tours to the villagers and created support groups and organised a range of activities to inform and sensitise farmers.

## **Organic Farming in the Village**

In 2012, 15 farmers started organic farming with 0.5 acres of land per person by seed production in the village and within six months, they had started paddy cultivation

**Table 8.1: Organic Farmers Groups in the Village**

| S.No. | Group Name             | Leaders Name                         | Total Members in group |
|-------|------------------------|--------------------------------------|------------------------|
| 1.    | Malikarjuna Group      | GudaVijaya and Manjula               | 15 Members             |
| 2.    | Vignesh Group          | Suneetha and Saroja                  | 10 Members             |
| 3.    | Ganapathi Group        | G. Raju and Gone Raju                | 16 Members             |
| 4.    | Jai Hanumanthu Group   | Girika Komarvelli and Thota Santhosh | 15 members             |
| 5.    | Lakshmi Narsimha Group | Raja Reddy and G.Raju                | 16 Members             |
| 6     | Mallikarjuna Group     | Girika Raja Reddy and P. Kumarswamy  | 15 Members             |

**Source:** Field data.



**Figure 8.I: Women Organic Farmer Group Members in Ontimamidipally Village**

in one acre of land per person. They formed six groups: two women groups consisting of 25 members and four men groups consisting of 10 to 16 members in each group. Farmers are encouraged to take up organic certification and are facilitated with forward and backward linkages in sustaining and expanding organic farming. The total land cultivated under organic farming is 100 to 115 acres. The residents are cultivating a variety of crop like paddy, turmeric, cotton, maize, chilli, nuts and vegetables (tomato, okra, cluster beans and chickpea).

### **Organic Fertilisers and Pesticides**

Organic farmers are preparing their organic manures on their own such as ghana, dhravajeevamurtham, gajaamrutham, and bio-pesticides like peda mutra dravnam, with leaf extracts of neem, ipomoea, vitex, custard apple, pongamia, as well as a growth promoter called panchagavya.

### **Ghan Jeeva Amrutham**

It is one of the organic manures used in the village. Ingredients used in the preparation of Ghan Jeeva Amrutham are cattle shed wastes/dung, unsprayed soil, pulse flour, neem paste, jaggery and animal urine. Process of preparation requires two bags of cow

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shed waste, 1kg unsprayed soil, 1kg pulse flour, 3 to 4 kgs neem paste, 1kg jaggery and 5litres of animal urine. All these inputs are mixed thoroughly and kept for 48 hours without disturbing. Jaggery gives energy to the soil and activates the crop; animal urine



**Figure 8.2: Preparation of Ghan Jeeva Amrutham Organic Fertiliser**  
increases the micro population in the soil and it eliminates the fungus. For the preparation of these fertilisers, it takes 4 to 5 days.

### Neemastram

It is one kind of pesticide that is used in organic farming. The following inputs are used in this preparation: 10liters of water, 2kg neem paste, 2 to 3 kg cow dung and 2 to



**Figure 8.3:Preparation of Neemastra Pesticide**



**Figure 8.4: Thoroughly Mixing the Neemastra Inputs with Stick (Neemastara Pesticide)**

three litres cow urine. All the inputs are put into one big can and mixed well by using a strong stick. Once it is mixed properly, it is used in the field at regular intervals.

### **Community Mobilisation**

All the farmers of the village have formed a society i.e., Ontimamidipally Cooperative Marketing and Credit Society. This society has 12 members on the board with a President, General Secretary and other members. A total of 253 farmers are enrolled in the community, with 87 to 90 farmers practicing organic farming. Every month, each member has to deposit ₹100 as savings, and the current balance in the society is



**Figure 8.5: Paddy Field Cultivated by using Organic Manures**

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₹5,00,000. This society provides loans to the members on monthly, six months and yearly basis for a minimum interest.

All these inputs cost them only ₹2000 per acre. At this cost, farmers are producing 27 to 28 quintals per acres on par with modern agriculture. By using modern fertilisers, they have generated an income of ₹15,000 per acre. Farmers are supposed to take organic certification by paying ₹300 per acre, and renew it every year. They are selling their products in the local markets and are keeping apart of the production with them for self-consumption. By practicing organic farming methods, they are earning more profits now. In 2015-16, the farmers got profits of ₹ 1,00,000 and they also have an agreement with 'Big Basket' for marketing their products. Thus, they are able to yield high profits directly now.

## **Impact**

Through organic farming, farmers are able to increase productivity as well as their incomes. As organic farming uses organic manures which cost less as compared with the modern fertilisers and pesticides, the cost of cultivation incurred by the farmers reduced by 80 to 90 per cent. Organic manure is produced using locally-available resources. Due to the reduction in the cost of cultivation, an increase in productivity and the premium price for their organic products, the farmers are able to increase their net profits. Increase in productivity proved that soil fertility has been increased and there is no secondary pollution as a result of this method. The number of friendly insects has increased on organic farms, which naturally control the crop pest number. Using organic manures, the soil microbial population has been increased and helps to strengthen the plant roots.

It is seen that though the people were initially resistant in adopting organic farming methods, after a pilot test, they agreed to expand it in their farms. Attitudinal change

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and risk-taking were key indicators in this exercise. Though the economic returns were slow and acted as a dampener, over a period of time, high productivity with better market opportunities made the farmers quite confident. Having been linked to e-commerce platforms like Big Basket, the farmers have realised that crops grown through organic farming methods yield higher prices. Now, there is no looking back for them.

### **Points of Deliberations**

- i. Organic farming has the 'label' of being costlier and out-of-reach for a common man. Elucidate the reasons for such a proposition.
- ii. Organic farming has emerged as a key strategy to achieve Sustainable Development Goals. Explore all the goals and targets in SDGs and link the advantages of organic farming with them.
- iii. Inherent reservations by farmers have been an impediment to the otherwise burgeoning market related to organic farming. Comment .

## Case Study Nine

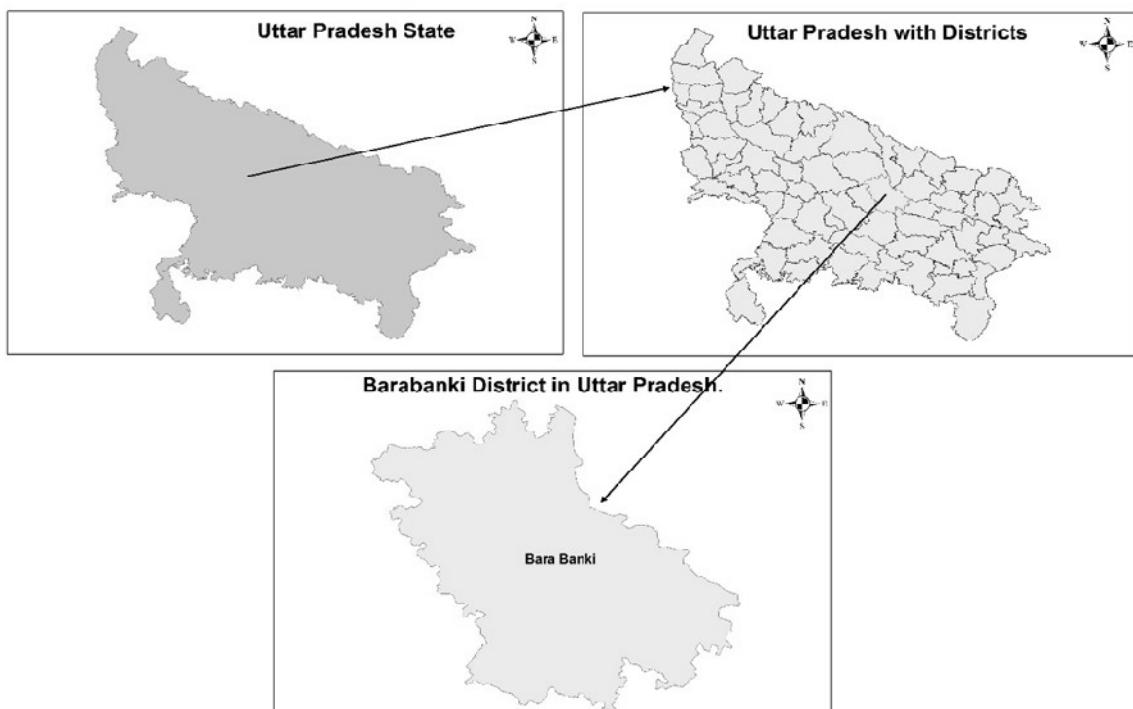
### A2J: Access to Justice-Barabanki, Uttar Pradesh

#### Profile of Barabanki

Popular for being the birthplace of Kunti, the mythological Parijaat tree, and the production of mint oil, Barabanki district occupies a unique place in the history of Uttar Pradesh. The district of Barabanki is divided into 15 blocks namely Banki Kodar, Banki, Dariyabad, Dewa, Fatehpur, Haidergarh, Harakh, Masauli, Nindaura, Pure-dalai, Ramnagar, Siddhaur, Sirauli Gauspur, Suratganj and Triveniganj.

#### Map of Barabanki (Map 9.1)

Location Map of Bara Banki District, Uttar Pradesh.



For this case study, the district of Barabanki was selected where a Legal Literacy Campaign was implemented in four blocks, covering forty Gram Panchayats and 800 beneficiaries.

## **Background**

In 2009, a project on ‘Access to Justice for Marginalised People’ was launched by the Department of Justice in collaboration with the United Nations Development Programme (UNDP). The project aims to empower the poor and disadvantaged sections of the society to seek and demand judicial services. The project also seeks to improve the institutional capacities of key justice service providers to enable them to effectively serve the poor and disadvantaged. The project is presently in the second phase of implementation and extends to the States of Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Rajasthan and Uttar Pradesh. The interventions under the project are focused on strengthening access to justice for the poor, particularly women, Scheduled Castes, Scheduled Tribes and minorities. The project seeks, on the one hand, to improve the institutional capacities of key justice service providers to enable them to effectively serve the poor and disadvantaged. On the other hand, it aims to directly empower the poor and disadvantaged men and women to seek and demand justice.

The main aims of the Legal Literacy Campaign were:

- i. Constitutional and legal safeguards
  - ii. Women’s security, welfare and maintenance
  - iii. Children’s security, welfare and maintenance
  - iv. Protection of traditional, marginalised and weaker sections
  - v. Labour security, welfare and maintenance
-

- vi. Good governance
- vii. Social security, insurance and financial inclusion

## **Justice Deconstructed**

Vulnerability is the key characteristic of the population that lives on the fringes of societal ladder. The ‘voiceless’ people have no door to knock in case their rights are violated. In India, one-third of our population is yet to receive the fruits of education and empower themselves to speak up. Various socio-economic barriers further widen the gap between the haves and have-nots. They are various government schemes that benefit them, but they are often left in the lurch, whenever they face violation or infringement of a right enforceable in law/or entitlements under specific programmes/schemes. Most citizens are ignorant of their legal rights, human rights, civil liberties, constitutional mandates, specific entitlements through schemes/programmes and other laws of the land, aimed at defending and protecting our dignity, freedom and right to equality and access to justice.

Since India had been long subjected to all kinds of injustice i.e., *political, economic and social* under the British Government, it was but natural that the framers of our Constitution hoped for justice for all, and strived for the removal of all inequalities and discrimination from the society. Justice can exist only in an egalitarian society because justice will be a reality when everybody has equal access to equality. Justice is defined as “*a harmonious reconciliation of individual conduct with the general welfare of society. The essence of justice is the attainment of the common good. It embraces, as the Preamble proclaims the entire social, economic and political spheres of human activity.*”

India seeks to secure social, economic and political justice for its people. They are as follows:

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- i. **Social Justice:** Social justice means the absence of socially-privileged classes in the society and no discrimination against any citizen on grounds of caste, creed, color, religion, gender or place of birth. India stands for eliminating all forms of exploitation from society.
- ii. **Economic Justice:** Economic justice means no discrimination between man and woman on the basis of income, wealth and economic status. It stands for equitable distribution of wealth, economic equality, the end of monopolistic control over means of production and distribution, decentralisation of economic resources, and the securing of adequate opportunities to all for earning their living.
- iii. **Political Justice:** Political justice means equal, free and fair opportunities to the people for participation in the political process. It stands for the grant of equal political rights to all the people without discrimination. The Constitution of India provides for a liberal democracy in which all the people have the right and freedom to participate.

The idea of justice implies a system where individuals can realise their full potentialities. It is just not enough that there is political or legal justice. Political and legal justice is a myth unless accompanied by social and economic justice. Social justice implies that all social discriminations like caste or untouchability must be ended. On the other hand, economic justice implies that economic exploitation should be ended. India is striving her best to secure social and economic justice to all and adopts policies and programmes to build up a society of equals and frames rules and laws to provide equality of status and opportunity. These ideals have been embodied in Articles 14-18 (Rights to

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Equality), 19-22 (Right to Life and Liberty) and especially in Article 38 (to promote the welfare of the people).

Under such a situation, wherein awareness is the basic hindrance in seeking one's right, it becomes imperative that some intervention be planned and implemented to overcome the issue. This would not only facilitate a transparent and accountable governance system, truly based on the 'Rule of Law', but also will particularly help the marginalised and the underprivileged to stand against injustice, borne upon them.

Improving the level of legal literacy might be a possible alternative to this issue. Once aware, the citizens, now empowered with e-knowledge of the rights they have, can more forcefully unite and seek justice, thus transforming their lives. In doing so, it is essential to use this knowledge as a tool for vulnerable groups to be able to understand and critique the law, to familiarise themselves with the scope of their rights under the law, and eventually, to assert their rights as a means to take action and bring in change.

## **Legal Literacy Campaign**

Among the most vulnerable in the country are listed the Scheduled Castes and Scheduled Tribes, womenfolk, the elderly and the aged, children and the differently-abled. They are the most oppressed people in society and are unaware of their mainstream opportunities. As mentioned in the Preamble of the Constitution of India, Justice is one of the first rights that is mentioned and stressed upon.

Based on some of its experiences in other States of the country, the Ministry of Law and Justice, Government of India (GoI), under the UNDP assisted an Access to Justice (A2J) project, commissioned by the Deen Dayal Upadhyay State Institute of Rural Development (SIRDUP), Lucknow to conduct a pilot project of Legal Literacy in Bara-

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<sup>1</sup>. Preamble to the Constitution – A Declaration of the State of India to Secure Justice and Security to the People ([http://shodhganga.inflibnet.ac.in/bitstream/10603/172020/12/12\\_chapter\\_05.pdf](http://shodhganga.inflibnet.ac.in/bitstream/10603/172020/12/12_chapter_05.pdf))

“WE, THE PEOPLE OF INDIA, having solemnly resolved to  
constitute India into a **SOVEREIGN SOCIALIST SECULAR**  
**DEMOCRATIC REPUBLIC** and to secure to all its citizens  
  
**JUSTICE**, social, economic and political;  
  
**LIBERTY** of thought, expression, belief, faith and worship;  
  
**EQUALITY** of status and of opportunity; and to promote  
  
among them all  
  
**FRATERNITY** assuring the dignity of the individual and the  
unity and integrity of the Nation;  
  
**IN OUR CONSTITUENT ASSEMBLY** this 26<sup>th</sup> day of  
November, 1949, do **HEREBY ADOPT, ENACT AND GIVE**  
  
**TO OURSELVES THIS CONSTITUTION.**

**Figure 9.1: Preamble to the Constitution of India**

banki district. The objective of the pilot is two-fold, namely (i) spreading legal literacy and awareness among general masses to access formal justice delivery system; and (ii) to avail various entitlements created by the Government of India and/or the State government through various social legislations, laws and rules. The coverage of the Legal Literacy Project spans across 10 Development Blocks in Barabanki district of Uttar Pradesh as elucidated :

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<sup>2</sup>. The case study is a part of the Access to Justice (GOI-UNDP) Project, January 2013-December 2017

| <b>Table 9.1: Blocks Covered under the Legal Literacy Project</b> |              |                      |
|---|--------------|----------------------|
| <b>S. No.</b>   | <b>Block</b> | <b>Number of GPs</b> |
| 1.  | Banki        | 62                   |
| 2.  | Masauli      | 48                   |
| 3.  | Dewa         | 79                   |
| 4.  | Harakh       | 65                   |
| 5.  | Fatehpur     | 87                   |
| 6.  | Haidergah    | 59                   |
| 7.  | Sidhaur      | 77                   |
| 8.  | Nindura      | 78                   |
| 9.  | Trivediganj  | 59                   |
| 10.   | Ramnagar     | 72                   |

**Source:** Field notes.

In addition, SIRD, Uttar Pradesh has also commissioned a local vendor to design and implement a Community Level IEC campaign which includes producing documentary films, puppet show, Nukkad Nataks and a ‘Vidhik Saksharta Rath’ for the project areas. With the major activities envisaged during the phase being completed, it was decided to proceed to the next activity, i.e., the organisation of a formal ‘Validation Workshop’ for the finalisation of the strategy and materials developed during the preparatory phase.

The sampling plan adopted for the study was in conformity to the stipulations articulated in the Terms of Reference (ToR) designed for the assignment by SIRD, UP. In doing so, the sampling plan adopted for the baseline study was as elucidated further. A total of four blocks (out of the 10 A2J project blocks) in Barabanki were selected for the study. Literacy rate and proportion of the most deprived sections of the community (SC/ST population) were taken as the surrogate measure for the selection of blocks. From the blocks thus identified, 10 Gram Panchayats (GPs) were selected in each of the four selected blocks using a simple random sampling method. Thus, the study covered a total of 40 GPs (10 GPs per block x 4 blocks) across Barabanki district.

The study objectives included:

1. Assess the level of legal, procedural and entitlement awareness among masses.
2. Identify gaps hindering the spread of legal literacy among the masses.
3. Demarcate benchmarks with regard to various aspects.

This case study is on sample study at Barabanki district.

**Table 9.2: Details of Barabanki District**

| S. No. | Sample Details        |           |
|--------|-----------------------|-----------|
| 1.     | Sample district       | Barabanki |
| 2.     | Sample blocks         | 04        |
| 3.     | Gram Panchayats (GPs) | 40        |
| 4.     | Sample beneficiaries  | 800       |

**Source:** Field notes.

The issues probed during the first phase of legal literacy campaign included:

**I. Constitutional and Legal Safeguards:**

- a. Fundamental Rights (Articles 14-32)
  - b. Fundamental Duties (Article 51 A)
  - c. Equal Justice, Free Legal Aids - Part IV, Article 39-A
  - d. The Legal Services Authorities Act, 1987
  - e. First Information Report (FIR) - Section 154 of CRPC, 1973
  - f. Arrest (Section 41 of Cr. P.C, 1973) and Detention
  - g. Bail (Section 436 of Cr. P.C, 1973)
-

## **2. Women's Security, Welfare and Maintenance:**

- a. The Dowry Prohibition Act, 1961
- b. Protection of Women from Domestic Violence Act, 2005
- c. The Married Women's Property Act, 1874
- d. The Sexual Harassment of Women at Workplace(Prevention, Prohibition and Redressal) Act, 2013
- e. The Indecent Representation of Women(Prohibition) Act, 1986
- f. The Immoral Traffic (Prevention) Act, 1956
- g. The Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act, 1994

## **3. Children's Security, Welfare and Maintenance:**

- a. Prohibition of Child Marriage Act, 2006
- b. Protection of Children from Sexual Offences Act, 2012
- c. Right of Children to Free and Compulsory Education Act, 2009
- d. Juvenile Justice (Care and Protection of Children) Act, 2000
- e. Child Labour (Prohibition & Regulation) Act, 1986

**4. Protection of Traditionally Marginalised and Weaker Sections:**

- a. The Scheduled Castes and Tribes (Prevention of Atrocities) Act, 1989
- b. Maintenance and Welfare of Parents and Senior Citizens Act, 2007
- c. Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995
- d. The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006

**5. Labour Security, Welfare and Maintenance:**

- a. The Bonded Labour System (Abolition) Act, 1976
- b. The Equal Remuneration Act, 1976
- c. The Maternity Benefit Act, 1961
- d. The Minimum Wages Act, 1948
- e. The Unorganised Workers Social Security Rules, 2009
- f. The Mahatma Gandhi National Rural Employment Guarantee Act, 2005 (MGNREGA)

**6. Good Governance:**

- a. Public Distribution System and Food Security (2013)
-

- b. U. P. Janhit Guarantee Adhiniyam, 2011
- c. Right to Information Act, 2005
- d. The Consumer Protection Act, 1986
- e. The Uttar Pradesh Lokayukta and UP-LokayuktaAct-1975

## **7. Social Security, Insurance & Financial Inclusion:**

- a. Schemes of Pre-Matric and Post Matric Scholarships for SC/ST,OBC, Disabilities Students
- b. Mid-Day Meal Schemes (MDM)
- c. Integrated Child Development Services (ICDS) Scheme
- d. Janani Suraksha Yojana
- e. Indira Awaas Yojana (IAY)
- f. Indira Gandhi National Widow Pension Scheme
- g. Indira Gandhi National Disabled Persons Pension Scheme
- h. Indira Gandhi National Old Age Pension Scheme AADHAAR Card
- i. Rashtriya Swasthya Bima Yojana (RSBY)
- j. Pradhan Mantri Jan Dhan Yojana (PMJDY)

A2J Outreach

The case study was conducted in Deva, Banki and Fatehpur blocks where people came forward to share their experiences. In the pilot phase conducted, various challenges were earmarked and needs were felt for generating more awareness about the rights to justice. With the above-mentioned interventions in place, when this case study was conducted, the picture had changed considerably. Focused Group discussions with people yielded results that they are now aware of their basic rights and felt empowered. They now could identify if any injustice was being meted out. They also learned to approach a counsel and file cases for seeking justice.



**Figure 9.2: Various Print Material in Regional Language used for Raising Awareness regarding Access to Justice**

As shown in Figure 9.2, under the Legal Literacy Project, various print material was designed in Hindi (local language of the place). An attempt was made to design posters and pamphlets with crucial issues related to domestic violence, human rights, right to education, dowry prohibition, child labour, etc. Slogans were created to motivate people, especially the women and the vulnerable to highlight the issues that had been troubling them.

### **Voices from the Hinterlands**

FGDs were conducted with the people of Deva, Banki and Fatehpur blocks. Most of the population was into wage labour and agriculture. Mostly, the youth had migrated to Lucknow, the State capital in search of better avenues.



**Figure 9.3: People of Barabanki District Participating in FGD to Discuss Awareness Issues regarding Rights to Justice**

### **Snippet One**

A young newlywed woman had been facing physical harassment at the hands of her in-laws. Social stigma and shame made her hesitant to filing a case. After having witnessed the LLC, she felt empowered to raise her voice and finally filed a case. She even

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moved to her parents' house who reluctantly accepted the situation. Through the pamphlets, they were made aware of the laws that could actually draw justice to their daughter.

### ***Snippet Two***

A daily wage labourer would travel everyday to the closest pick-up point and take whatever wages were offered after negotiations. After LLC, he got to know about MGNREGA and the wages one gets there, so he registered himself and got a job card. But here again, he realised that a mediator was taking a part of the wages and he was getting a lesser amount. He therefore, approached the Sarpanch and filed a case used his right to justice.

The project has actually been a crowd puller. The people are now aware of their rights and also conduct group meetings to resolve their issues.



**Figure 9.4: Women Participants sharing the Change Transpired after Legal Literacy Campaign in Barabanki District**

The people shared their experiences after the Legal Literacy Campaign was held in their block. They shared that now they were better aware as far as legal rights were concerned. They understood through the campaign that law is equal for all, whether rich

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or poor, elite or desolate. One of the female participants shared her experience after the campaign took place. She realised that she was being paid less and had all the right to demand justice, which eventually she did and benefitted. They have realised the importance of the Right to Education Act too and now all the children in the village are enrolled in schools. Child labour is completely banned.

### **Tehsil Diwas Celebrations**

The people in the block are now so empowered and elated to know their rights that now they celebrate the same in the form of 'Tehsil Diwas'. Every Tuesday, people gather at the Kotedar's house (*PDS distributor*) and share their issues. Social audits are also conducted here to maintain transparency and accountability. The Panchayati Raj System has also been strengthened as an effect of the Legal Literacy Campaign. Issues like domestic violence, child marriages, rights to education, consumer forums, foeticide, etc., are discussed in the so-called '*khulibaithaks*' (*open house*).

The aim and objective of a legal system is therefore, to dispense, promote equal justice through a fair, just, reasonable, non-oppressive and non-arbitrary procedure established by law. The people have felt more powerful and confident after the LLC. The number of cases filed and those resolved, have both gone up. The voices of the marginalised have finally found a platform.

### **Points of Deliberations**

- i. What according to you are the major challenges that hinder access to justice for a common man residing in a rural village?
  
  - ii. List the various Government of India's initiatives to improve access to justice and justice delivery in the recent past?
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- iii. As a concept, *pro bono* legal service has not gained much momentum in the country and “remains more of an ad-hoc, individualised practice lacking an institutional structure.” Comment.
- iv. Take a look at John Rawls’ concept of Social Justice and critically analyse it in light with Amartya Sen’s approach to social justice.

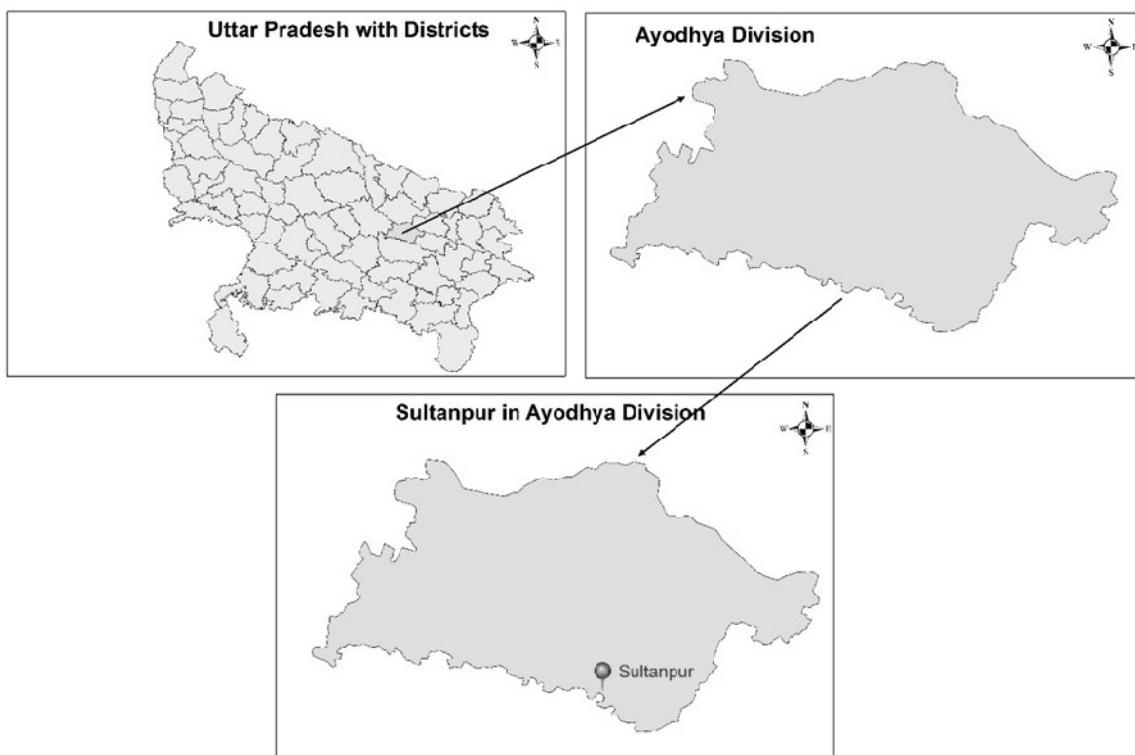
## Case Study Ten

# **SAI-Social Accountability Intervention Projectat Sultanpur, Uttar Pradesh**

### **Profile of Sultanpur**

Sultanpur is a small district near the capital city of Lucknow in the State of Uttar Pradesh. The State is the most populous State in the country with 75 districts in 18 divisions. Situated in the Ayodhya division, Sultanpur is located on the right bank of the river Gomti, and lies 135 kms East of the State capital, Lucknow. It covers 1,727 villages, five tehsils and 17 thanas.

### **Map of Sultanpur (Map 10.I)**



## **Social Accountability Intervention Project**

The Social Accountability (SA) mechanism to improve health service delivery was introduced in Sultanpur, Uttar Pradesh. The Uttar Pradesh Health System Strengthening Project (UPHSSP) supported the International Development Association (IDA) in implementing the strategy to improve the quality of healthcare services in the State. The intervention was aimed to build trust and capacity among citizens by involving them in creating responsiveness among stakeholders.

### **Social Accountability Deconstructed**

Social accountability is about “*affirming and operationalising direct accountability relationships between citizens and the State*” (World Bank Social Accountability Sourcebook). In the framework proposed in a study by the Department of Administrative Reforms and Public Grievances, Government of India, ‘social accountability’ is an approach towards ensuring accountability that relies on civic engagement, i.e., in which ordinary citizens and citizen groups participate directly or indirectly in exacting accountability. The approach involves deploying tools like participatory budgeting, public expenditure tracking, citizen report cards, community scorecards, social audits, citizen charters, etc. Moreover, transparency in governance is the key factor here. The main channel through which citizens are empowered to demand accountability is through the creation of, and access to more information. Greater information leads to more awareness, thus, facilitating more participation and accountability.

UPHSSP intends to introduce community assessment of health and healthcare at the local level and use community audits of service delivery and assess information to stimulate community action to demand better services and enhance positive health behaviours.

## Aim of the Project

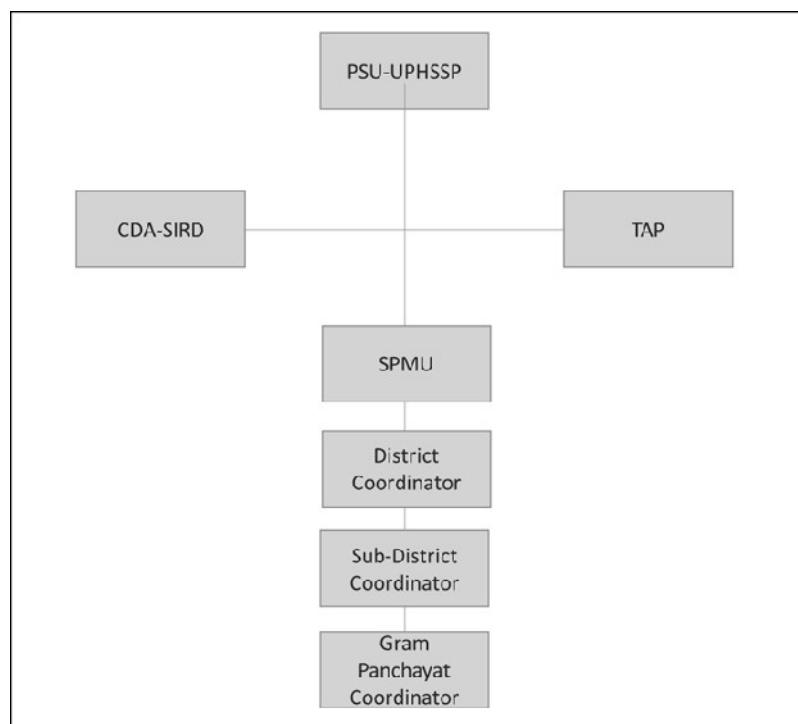
The project particularly aimed at developing social accountability mechanisms to improve the delivery of healthcare services in the catchment area of the facility, including all sub-centres in the project area. The specific objectives included:

- i. To develop a design for the social accountability intervention at the block and village level to enable the community to be informed of their health entitlements.
- ii. To facilitate monitoring, based on agreed benchmarks/indicators and enable feedback on the indicators to the health system to further facilitate corrective action in a framework of accountability.
- iii. To enable the community to be partners in the process of improving the functioning of the health system, as envisaged by NHM.

An effort is made to enhance the social accountability of service providers and health system through the engagement of VHSNC and block-level PRI representatives in the State.

## Project Coverage Area

The project design consisted of 12 districts, covering approximately 51 blocks and 3,000 Gram Panchayats. The structure of the project unit was designed for better implementation at the grassroots level. The project was implemented with the help of SIRD, Uttar Pradesh. It stressed on delivery of healthcare service and hence highlighted the role of VHSNC.



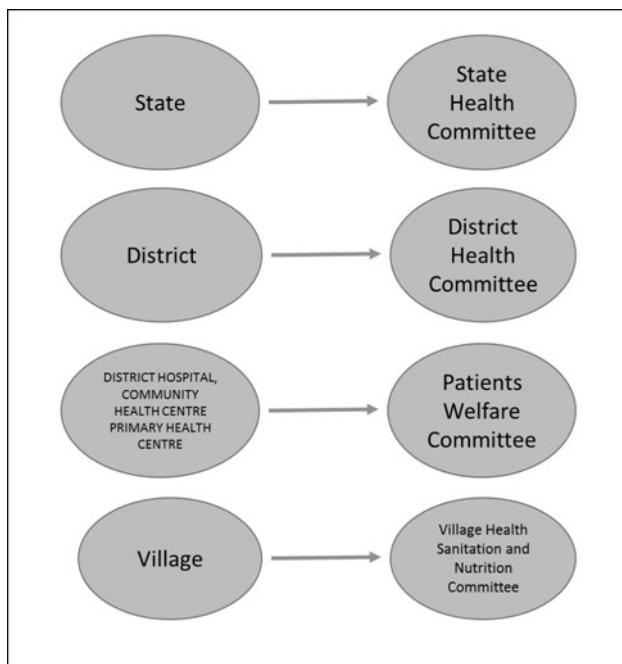
**Figure 10.1: Structure of the Project Management Unit**

## **Village Health Sanitation and Nutrition Committee (VHSNC)**

The VHSNC is one of the key elements of the National Rural Health Mission. The Committee is formed to take collective actions on issues related to health and its social determinants at the village level. The process of decentralised planning is envisaged through 'local-level community action'. It is formed to take leadership in providing a platform in improving health awareness and access to community for health services, specific to local needs to serve as a mechanism for community-based planning and monitoring.

The various institutions which have been set up at different levels for effective health planning have been given in the pyramid above. You can see that VHSNCs serve as village level institutions for health planning and action for the marginalised and poor sections.

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**Figure 10.2: Structure and Delegation at each level**

The committee is formed at the revenue village level and it should act as a sub-committee of the Gram Panchayat. It should have a minimum of 15 members which should comprise of the elected members of the Panchayat who shall lead the committee. All those working for health and health-related services should participate. Community members/beneficiaries and representation from all the community sub-groups, especially the vulnerable sections and hamlets/habitations should also take an active part. ASHA residing in the village shall be the member secretary and convener of the committee.

### **Need for VHSNCs**

The VHSNCs have designated roles and responsibilities (as given on the official website of National Health Mission) which are mentioned below:

- ◆ Create awareness about nutritional issues and the significance of nutrition as an important determinant of health.

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- ◆ Carry out a survey on nutritional status and nutritional deficiencies in the village, especially among women and children.
- ◆ Identify locally available food of high nutrient value as well as disseminate and promote best practices (traditional wisdom) congruent with local culture, capabilities and physical environment through a process of community consultation.
- ◆ Inclusion of nutritional needs in the Village Health Plan – The committee will perform an in-depth analysis of the causes of malnutrition at the community and household levels by involving the ANM, AWW, ASHA and ICDS supervisors.
- ◆ Monitoring and supervision of the Village Health and Nutrition Day to ensure that it is organised every month in the village with the active participation of the entire village.
- ◆ Facilitate early detection of malnourished children in the community; tie-up and referral to the nearest Nutritional Rehabilitation Centre (NRC) as well as follow up for sustained outcome.
- ◆ Supervise the functioning of the Anganwadi Centre (AWC) in the village and facilitate its working in improving the nutritional status of women and children.
- ◆ Act as a grievances redressal forum on health and nutrition issues.

Table 10.1 shows the health facilities set-up by the government. NRHM support is being provided to strengthen these facilities through the provision of adequate infrastructure, staff, and supply of drugs and equipment.

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**Table 10.1: Facilities Set-up by the Government**

| <b>S. No.</b> | <b>Name of the facility</b>   | <b>Population Coverage</b>  | <b>Providers</b>   | <b>Available Services</b>   |
|---------------|---|---|--|---|
| 1.            | <b>Health Sub-Centres are of two types i.e., Type A and Type B.</b> The Latter provides all recommended services and also facilities for conducting deliveries. | 3,000 population in tribal hilly areas and up to 5,000 population in plainareas | One ANM* Multipurpose-health worker in some places<br><br>*A second ANM (has been placed in certain states)                              | Conducts VHND and other outreach services. Here, ANM provides the following services: family planning services like the provision of OCPs, condoms, IUCD insertion and related counselling. Complete package of ANC including pregnancy registration, PNC and immunisation growth monitoring and nutritional counselling treatment of minor illnesses and childhood diseases including prompt referral when required. Treatment for TB, leprosy, malaria and also facilitates activities for control of vector-borne diseases. Delivery services only if she is trained as SBA.   |
| 2.            | <b>Primary Health Centre</b><br>4-6 bedded and acts as a referral unit for 6 sub-centres  | 20,000 in hilly, tribal, or difficult areas and 30,000 in plainareas            | One or two MBBS Medical Officers<br>One AYUSH Doctor,<br>One Staff Nurse<br>One Sanitary Staff<br>(Many PHCs have two Medical Officers). | Provides all the services mentioned under HSC plus: 24 hours institutional-delivery services both normal and assisted (if designated as 24X7 PHC) outpatient care for all ailments is possible through the skills of a Medical Officer.<br><br>Essential new-born care (with the provision of new born corner in labour room). Abortion services with linkage for timely referral to the facility approved for 2 <sup>nd</sup> trimester of MTP (where trained personnel and facility exist). Male/ female sterilisation services where trained personnel and facility exists. Health check-up and treatment of school children and adolescent-friendly clinic for 2 hours once a week on a fixed day, addressing adolescent health concerns. Screening of general health, assessment of anemia/nutritional status, visual acuity, hearing problems, dental checkup, common skin conditions, heart defects, physical disabilities, learning disorders, behaviour problems, etc. |

|    |   |  |   |  |
|----|---|--|---|--|
| 3. | <b>Community Health Centre</b><br>30-bedded hospital and acts as referral for 4 PHCs                    | 80,000 in tribal/hilly/desert areas and 1,20,000 in plain areas. | 5-6 doctors including specialists for different types of health care. Nurses and paramedical staff more than PHC. | Apart from all services that a PHC is meant to provide as detailed above, each CHC also provides clinical care services in some of the specialist areas and also facilitates institutional delivery services. Some CHCs are designated and equipped to provide services of Caesarean delivery.   |
| 4. | <b>District Hospital</b> -75 to 500 beds depending on the size, terrain and population of the district. | One per district   | Specialist for different types of healthcare with adequate number of nurses and paramedic staff.                  | <p>It is a hospital at the secondary referral level. Generally, provides all basic specialty services and also certain kinds of highly specialised services.</p> <p>It has specialised New-born Care Unit for sick and high risk new-borns, blood bank, specialised labs, and provides services for caesarean sections, post- partum care, safe abortion and all kinds of family planning procedures.</p> <p>It also provides most of the surgical services and has a well-equipped Operation Theatre. It has provisions for dealing with accidents and emergency referrals, rehabilitation, mental illnesses and other forms of communicable and non-communicable diseases.</p> |

## **Activities of the VHSNC**

The activities of the VHSNC can be classified into nine categories:

- i. Monthly meetings
- ii. Accounting for the Untied Village Fund
- iii. Management of Untied Village Health Fund

- iv. Record maintenance
- v. Monitoring and facilitating access to essential public services
- vi. Organising local collective action for health promotion
- vii. Facilitating service delivery in the village
- viii. Community monitoring of healthcare facilities
- ix. Village health planning

It is in the meeting that the VHSNC monitors and plans for health. It is a platform for making and initiating action to identify and discuss the problems, and plan for ways to mitigate them. Meetings of VHSNC should be held at least once every month. A day should be fixed every month for the meeting, for example 10th of every month or third Saturday of every month. This will ensure that the members are aware beforehand of when the meeting is to be held so that they can plan to participate. The VHSNC also maintains a Public Service Monitoring tool and register and the key items monitored by VHSNCs through this register include: *functioning of anganwadi, number of malnourished children, VHND and ANC services by ANM, institutional deliveries, use of mosquito nets, availability of referral transport, availability of drugs with ASHA, number of fever cases, number of diarrhoea cases, functioning of schools, functioning of PDS, MNREGS, MDM, pensions, etc., cleanliness around hand-pumps, functioning of hand pumps, and violence against women.*

The VHSNC should record and discuss on all points mentioned above in the village health register. In addition, the following should be used in the planning process:

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- i. **Death registers:** Through this, the VHSNC would identify the preventable causes of deaths due to diarrhoea, fever, TB, infant deaths and maternal deaths on which planning needs to be done.
- ii. Experiences of VHSNC members and discussions during VHSNC meetings.
- iii. Habitation/village-level meetings or issues discussed in the habitation level meetings need to be highlighted by the ASHA or members of that habitation in order to understand the problems and gaps.

## **Doctors on Call**

The case study here is about the success of the SAI mechanism in Dubeypur block of Sultanpur district. The VHSNC representatives were quite in action in Dubeypur block. The area is small in size and the hamlet has settlements that are close to each other. The ANM and ASHA are extremely active in their role and perform their duties diligently, despite the lack of infrastructure and facilities. The ASHA makes weekly rounds of the village to give counselling to pregnant and lactating mothers. They are joined by the anganwadi workers, under the supervision of the ANM. They check the health indicators of lactating mothers, infants and newborns. They carry kits such as the BP machine, stethoscopes and thermometers, scales, measuring tapes, ice-box, first-aid kit, disposable syringes and registers for the record.

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**Figure 10.3: An Anganwadi Worker Updating Records**

**Figure 10.4: Records being Maintained by the Health Personnel**

It is seen that the ANM is quite experienced and has been engaged in this work for more than 15 years. She has a reputation among the locals and people follow her advice diligently. She also helps in guiding and suggesting the ASHA and AWWs. The network is strong enough to make an impact on the health of the people of Dubeypur, wherein, the statistics show an upward trend in better health indicators. As the ANM is an elderly lady and has built a positive image amongst the villagers, people wait for her visits and look forward to her advise. They seem to have full faith in her prescribed

treatment. She also acknowledges the fact and feels that having good faith in the doctor automatically treats the illness, more than the medicine.



**Figure 10.5: An ASHA Worker distributing the Nutrient Supply to a Lactating Mother**

The ASHA are regular in their visits to the villages and have maintained up-to-date records of all the people under the coverage area. On the deputed days, they visit the villages and put a mobile camp. They check the blood pressure, weight, Body Mass Index (BMI), and conduct counselling sessions. They distribute the supplementary nutrient packets to the women who need them.

Having the medical personnel doing their job, the impact of SAI has yielded better results. It has been observed that the community members are assigned the task of checking, attending and participating in the visits made by the ANM and ASHA workers. They also make sure to mobilise all women and children who would be requiring the requisite test, dosage or counselling. The participation of people has motivated the medical staff to maintain good records that are updated on every visit. At every meeting point, there are about 30-45 women and children that need attention. Moreover, some

community people also assemble just to make sure that all the things are running smoothly.



**Figure 10.6: ANM Administering Injection to a Newborn**



**Figure 10.7: A Hoarding in Hindi for Advertising the Date and Place of Medical Camp**

## Bottlenecks

Though the medical camps are held at Dubeypur on a weekly basis, it is observed that people do not have awareness about the diseases for which they are seeking treat-

ment. After the tests, if the woman is found to be anaemic, and the ANM gives her IFA, the woman does not exactly know the reason. The same goes for administering injections. They just know that some medication is being given and henceforth, they would be doing well. The whole eco-system shows the dominance of health workers.

## **Enablers**

The ANM has carved a niche for herself. People adhere to her suggestions. The positive side is that the women know that they have to undergo several tests while they are pregnant or lactating, they are aware of their diet and precautions that need to be taken. For the infants as well, people are now better aware of their vaccinations and health issues. Institutional deliveries are taking place and people have become more open in accepting the medical services offered by the government, rather than following quacks or the *jholachhaap* fraudsters. Apart from that, they have started maintaining a clean environment, using mosquito nets, using boiled water for drinking, keeping the environment clean, etc. They make sure that there is proper drainage and no water collects and stinks near hand-pumps. The medical personnel has also been guiding people about the demerits of open defecation. The people feel that regular visits by health professionals has had a positive impact on the overall health indicators of the community people.

It is seen that the project essentially focussed on certain points such as the provision of information by the health workers to the beneficiaries. The people were unaware of the health services they can avail. A feedback mechanism was institutionalised for the citizens by making a network of stakeholders including panchayat members, ANM, AWW and ASHA. Thus, a structural framework was envisaged at the grassroots level for better services, positive health behaviour, social audits of service delivery and thus accountability.

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## Points of Deliberations

- i. Do you agree that once the people are made accountable for certain interventions, the success rate shoots up? In this case, since crowd mobilisation was high, the medical staff also took heed to perform better. Comment.
  
- ii. Decentralisation of services holds the key to the success of the programme. Discuss.
  
- iii. Access to health care services had emerged as an impediment. With medical personnel visiting the villages and doorsteps of the people, the awareness among people has risen. Do you think having built a good reputation and trust among people by the medical staff helps? Also, does fear that people are monitoring their performance, makes them perform better. Discuss in light with case in point.

## **Case Study Eleven**

# **An Ingenious Way of Overcoming Credit Shortage during Demonetisation in Gosaba through SHG**

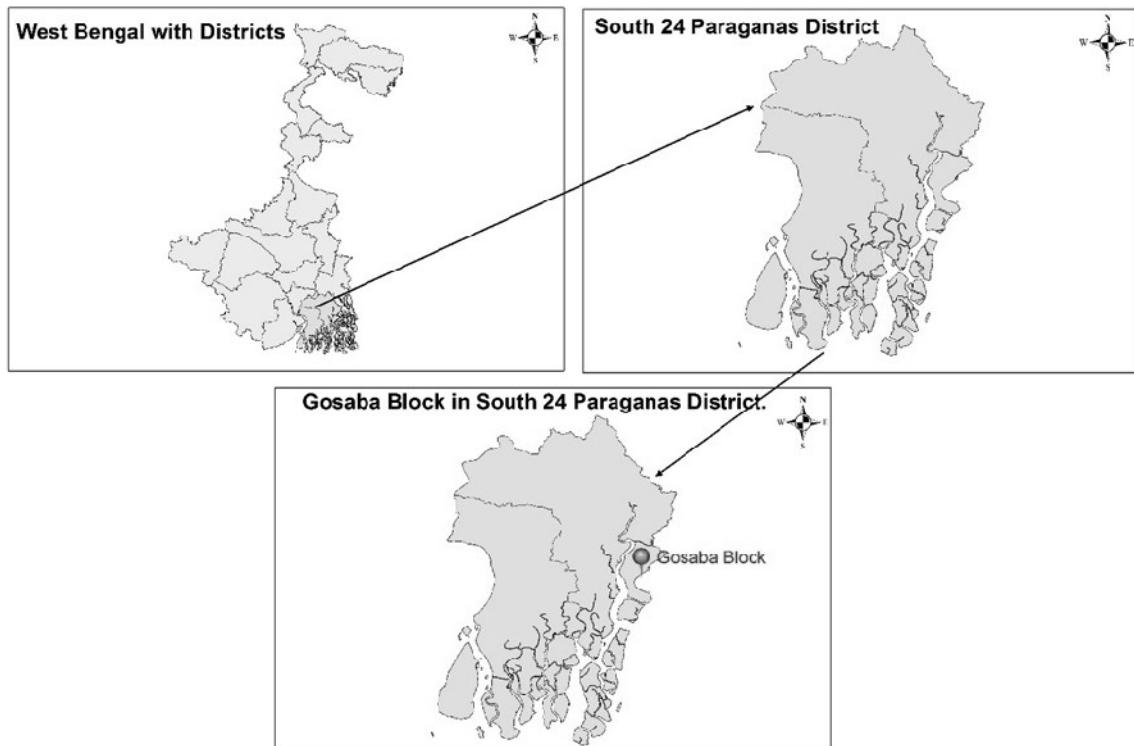
**C**redit crisis or credit shortage was at its peak in 2016-17 when the government announced the demonetisation of all ₹500 and ₹1,000 banknotes in Mahatma Gandhi series of Indian national currency. The objective of such a drastic step by the government was to curb black money, but in the hindsight, there were others who faced the distress. The government's goal was to eradicate counterfeit currency, fight tax evasion, eliminate black money gotten from money laundering and terrorist financing activities, and promote a cashless economy. A wrecked rural economy in the wake of demonetisation stood in the face of the poor and the marginalised.

## **Gosaba**

Gosaba is a community development block comprising of nine Riverislands with 14 Gram Panchayats in South 24 Parganas district in the Indian State of West Bengal. Gosaba is an intermediate panchayat (local self-government) under South 24 Parganas district. Village panchayats under it are – Amtali, Bali I and II, Bipradaspur, Chhotamollakhali, Gosaba, Kachukhali, Kumirmari, Lahiripur, Pathankhali, Radhanagar-Taranagar, Rangabelia, Satjelia and Sambhunagar. Unlike other blocks, here, the Block Development Officer (BDO) has a boat for commuting through waterways and a van (modified rickshaw) for commuting on the land. The same vehicles are at the disposal of the police department as well.

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**Map of Gosaba (Map 11.1)**



**Figure 11.1: BDO's Boat for Commuting through Waterways**

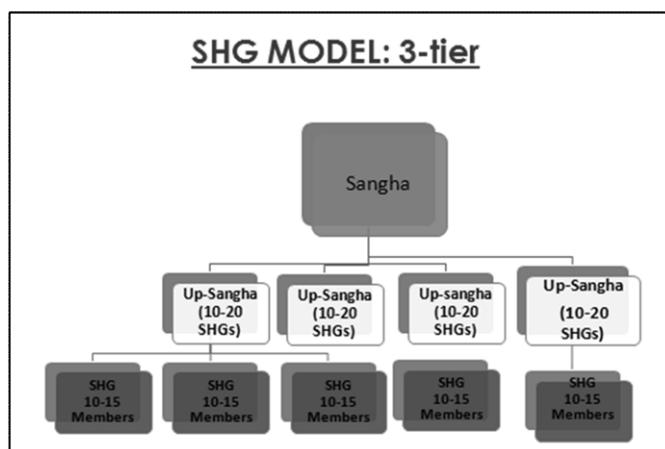


**Figure 11.2: The Above Vehicle is known as “VAN” in this part of the Region**

## **Demonetisation**

During demonetisation, there was a sudden shortage of cash in the market. Banks were unable to lend money to the people. The situation was even worse in those villages where there were no banks and the case here belongs to one of that Gram Panchayat where there is not a single bank. The women in the gram panchayat went through a distress phase and were compelled to come out with an earth-shaking idea. The SHGs or Sanghas got together and found their strength in solidarity.

## **The SHG Structure in West Bengal**



**Figure 11.3: The Three-tier SHG Model in West Bengal**

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## **Self-Help Groups**

The philosophy underlying Self-Help Groups (SHGs) promotes the factor of self-dependency and does away with the dependency of women on the outer world. Over the eons, the marginalised, vulnerable and the voiceless have borne the brunt of extreme poverty and the formal financial institutions have disastrously failed to come to their rescue. In India, the SHGs are basically small groups, having economic homogeneity and a very strong affinity. They maintain a common pool of funds and conduct regular meetings. They exhibit collective leadership and resolve issues amongst the group themselves. The SHG groups encourage savings and promote income generation activities through small lendings. The credibility of the groups lies in their integrity and honest functioning that helps its members break the shackles of poverty.

Over a period of time, the SHG movement has evolved in a massive way and has facilitated women to avail credit facilities at low rates of interest. The regular habit of savings also helps women to manage their expenditures in an optimum manner. Inculcating mutual trust strengthens the social capital of the community too, which in turn promotes solidarity. Eventually, empowered women are able to find a way to express their identity.

As SHG are small and economically homogenous affinity groups of rural poor, they are voluntarily coming together for achieving the following:

- i. To save a small amount of money regularly.
- ii. To mutually agree to contribute a common fund.
- iii. To meet their emergency needs.
- iv. To enforce collective decision-making.

- v. To solve conflicts through collective leadership and mutual discussion.
- vi. To provide collateral-free loans with terms decided by the group at market-driven rates.

## **Functions of SHGs**

The important functions of SHG are the following:

- i. Enabling members to become self-reliant and self-dependent
  - ii. Providing a forum for members for discussing their social and economic problems
  - iii. Enhancing the social status of members by virtue of their being members of the group
  - iv. Providing a platform for members to exchange ideas
  - v. Developing and encouraging the decision-making capacity of members
  - vi. Fostering a spirit of mutual help and co-operation among members
  - vii. Instilling in members a sense of strength and confidence which they need for solving their problems.
  - viii. Providing organisational strength to members
  - ix. Providing literacy and increasing general awareness among members
  - x. Promoting numerically and equipping the poor with basic skills required for understanding monetary transactions
-

Thus, the SHGs function on the principle of the five P's which are as follows:

- ◆ Propagator of voluntarism
- ◆ Practitioner of mutual help
- ◆ Provider of a timely emergency loan
- ◆ Promoter of thrift and savings
- ◆ Purveyor of credit

To overcome the crisis, Bipradaspur Sangha came up with an idea that they would themselves borrow the money deposited by their members in their respective Cash Credit (CC) account as part of repaying their loans. As always the case, the rural bank had a manpower shortage. However, the Bank Manager has happily consented and also supported their idea and it was a win-win situation.

The case in the study relates to Bipradspur Gram Panchayat. They do not have a bank in their Gram Panchayat. The bank account of Sangha is in Pathankhali Gram Panchayat. The name of the Sangha is Purbasa Sangha. There are 11 Up-Sanghas and 138 SHG groups with 1,749 members.



**Figure 11.4: Meeting of SHG at Bipradaspur, Meeting of Bipradaspur Sangha and Meeting of Up-Sangha at Bipradaspur**

## **The Crisis**

Immediately after the announcement of demonetisation, the banks went dry. They had not enough money to lend to the people on one hand and on the other hand, the people hardly had any knowledge about making digital payments. 3G signals were still a distant dream for the residents of Gosaba. Digital transactions were therefore out of the purview and the most crucial time of the year had approached. Notably, this is a time of kharif harvest and the start of rabi sowing, partly explaining why this period is dubbed the ‘busy season’ from a standpoint of credit demand, the other being bunching of festivals and weddings. The people were in debt and the problems just kept mounting. The rabi sowing season had already approached. Also, banks in rural areas face a perennial problem of manpower shortage. “*Necessity is the mother of all inventions and innovations*” was once again proved to be right when one of the Sanghas came with an idea of dealing with the shortage of cash in the market and re-bound.



**Figure 11.5: Secretary of Sangha discussing the Idea with Branch Manager**

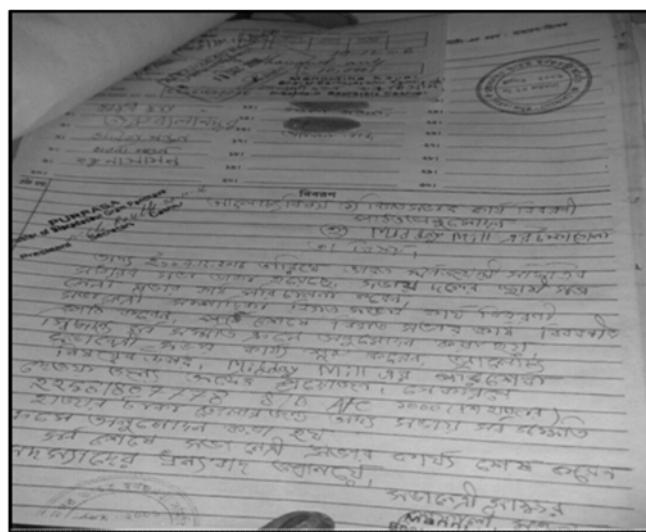
SHG had to pay to the banks some amount every month, based on the amount they had withdrawn from their CC Account as part of the loan payment for the Cash Credit Limit (CCL) loan. At the same time, some groups wanted to withdraw money.

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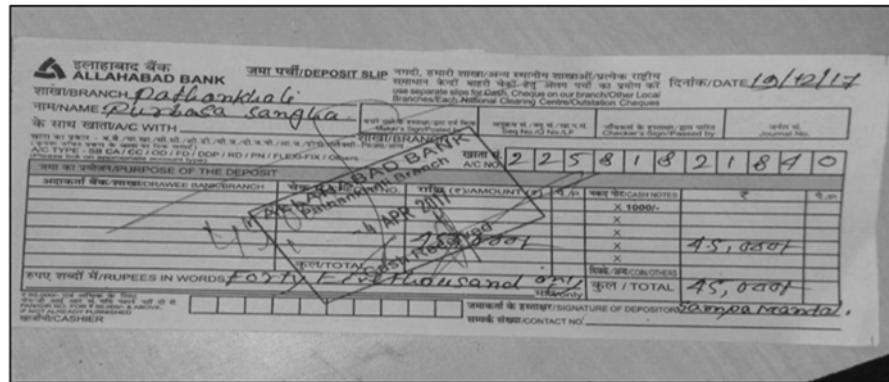
Observing this mechanism of payments and withdrawals, the Sangha decided that no SHG will go directly to the bank. Instead, credit and debit needs will be made known to their respective Sanghas first. In this way, the Sangha learned about the amount of money that was going to be deposited in the bank on any particular day. Accordingly, the needy ones were told to go to the bank and stand in the queue early morning to draw money.

### The Enactment

The Sangha members talked to the bank regarding the same and received full support from the Branch Manager. The Branch Manager, Allahabad Bank, Pathankhalia deserves equal praise, reward and recognition for his timely consent and approval, in view of the crisis at hand. Both the bank and the Sangha worked on the modalities to overcome the problem. As a part of that, the Branch Manager set aside one computer system for the Secretary of the Sangha to work in an offline mode. She assisted the bank in tallying of cash at the end of the day, filling up of cash pay-in slips and cash withdrawal slips and her team managed the public in the queue.



**Figure I I.6: Withdrawal Receipt along with the Resolution of the SHG**



**Figure 11.7: Deposit Receipt**

Through the assistance of Bank Manager and the enthusiastic Sangha members, adequate cash was available and the women were able to break the grip of demonetisation while the rest of the country was struggling to make way.

### **Points of Deliberations**

- i. Explore the inception of the SHG movement in India.
- ii. Deliberate upon the importance of micro-finance institutions.
- iii. What makes an SHG successful? How does the discourse of social capital help?

## Case Study Twelve

### **Gantlavelli's Relentless Journey to becoming a Model Village**

In 1959, the Prime Minister of India, Pandit Jawaharlal Nehru inaugurated Shadnagar Gram Panchayat in Mahbubnagar district as a part of the democratic decentralisation of administration. It is one of the Gram Panchayats in Farooqnagar mandal. Gantlavelli village is also a small village in this mandal. It is at 58 kms distance from the district headquarters, 50 kms from NIRDPR, Rajendranagar, 8 kms to the mandal headquarters and 7 kms from the 44<sup>th</sup> national highway.

Up to 1980, Gantlavelli was one of the habitation villages of Kammadanam village Gram Panchayat. In 1981, it was established as separate Gram Panchayat with three habitations: Devuni Banda thanda, Soni thanda and Venkatam Bhai thanda. After it was constituted as a separate panchayat, Shri Mudavath Narsing Naik was unanimously elected as the first president of the village from the ST community. Shri Lakshma Reddy, Smt. Badhavath Chandhini, Shri Badepalli Siddhartha and Shri Venkatesh Yadav became the second, third, fourth and fifth presidents of the village respectively. As the sixth President, Smt. Kavali Lalitha Bhaskar was elected in the 2013 panchayat elections.

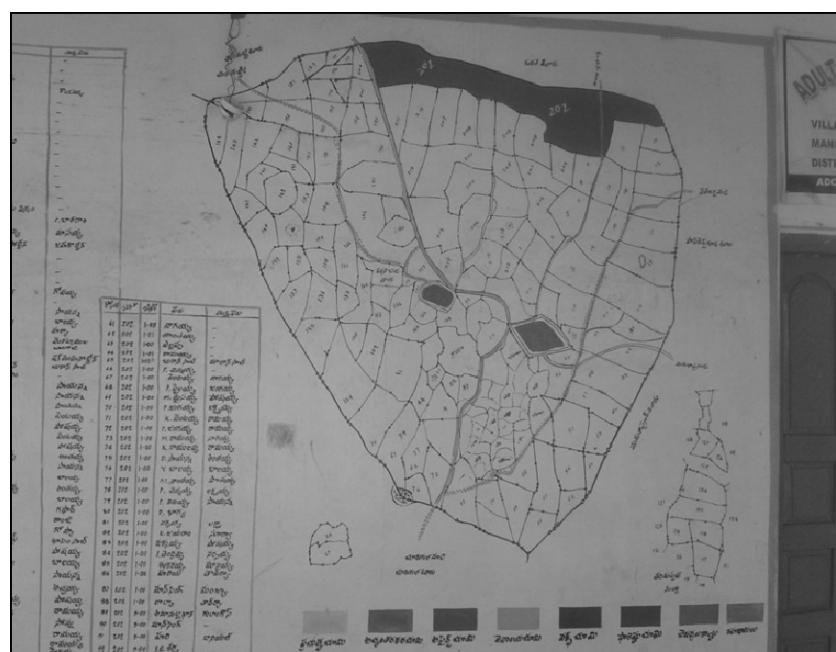
#### **History of the Village**

The name of the village Gantlavelli draws from the name of Shri Gantamma, who belonged to the richest family in the village Achampeta. She came to the village along with five Dalit families and settled here and slowly the village expanded in size. Gradu-

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ally, the elders realised that other villages in the mandal such as Hajipalle, Kishan Nagar and Dusakal villages and had got several awards like the Nirmal Gram Puraskar (NGP). They drew inspiration and mobilised together to get acclaims for their village as well. The sarpanch or the president was instrumental in this process.

They desired to make their village as one of the model villages in the country and started working to achieve their goal, irrespective of caste, gender and other related issues. They encouraged and united all the members of the gram panchayat and people in the village to join for catalysing development. The current president has been continuously motivating the people through different meetings by telling them that without their participation and strong determination, it is not possible to achieve the model village status. Herein, an NGO called World Vision India (WVI) has chipped in its support to help people realise their dream and has formed different committees for the execution of the plans.



**Figure 12.1: Map of Gantlavelli Village at GP Office**

## **Role of World Vision**

The World Vision India is a Non-Governmental Organisation that serves all people regardless of religion, caste, race, ethnicity or gender. Through designing roadmaps of development, relief and advocacy, they strive to create lasting changes in the lives of children, their families and communities living in the clutches of poverty and injustice. This organisation is working in India since 1958, and is currently working with over 6,252 urban, rural and tribal communities in 191 districts in 26 States, impacting the lives of 26 lakh children across India.

World Vision India started working in Gantlavelli village from 1996 and is dedicated to enhancing the lives and future of the vulnerable people and development of the village. They implemented several awareness programmes focusing on nutrition, health-care, water and sanitation, quality education and livelihood for the sustained well-being of the people in the village. The following are some of the development works initiated and completed by World Vision India:

**Table 12.1: Development Programmes Implemented in the Village by World Vision India**

| <b>S. No.</b> | <b>Financial Year</b> | <b>Developmental Works Conducted by WVI</b>                                    |
|---------------|-----------------------|--|
| 1.            | 26-02-1999            | De-siltation of Ganton Kunta   |
| 2.            | 26-02-1999            | Construction of check dams   |
| 3.            | 26-02-1999            | Construction of houses in SC locality  |
| 4.            | 07-07-1999            | Agricultural bore motor for C.ChinaBalaraj                                     |
| 5.            | 14-08-1999            | Training to 26 women in tailoring  |
| 6.            | 09-07-1999            | Agricultural bore motor set to Shri S. Narayana                                |
| 7.            | 22-08-2002            | 10 sewing machines to 10 women-headed families                                 |
| 8.            | 20-03-2003            | School building extension with two rooms                                       |
| 9.            | 20-03-2003            | Two motor-pump sets for drinking water to Gantlavelli and Devuni Banda thandas |
| 10.           | 20-03-2003            | Construction of water tank to Devuni Banda thanda (30,000)                     |
| 11.           | 20-03-2003            | Drinking water pipeline in the village   |
| 12            | 28-08-2002            | Motorpump set for collective farming to four farmers                           |

Dr. Sonal Mobar Roy

|     |            |   |
|-----|------------|---|
| 13. | 29-08-2002 | Books and bags distributed to children  |
| 14. | 30-09-2013 | Distributed buffalos, goats to malnutrition-effected children families in the village |
| 15. | 10-11-2013 | Construction of school compound wall  |
| 16. | 19-11-2013 | Water plant in the village  |
| 17. | 10-06-2014 | Repairing of classrooms   |
| 18. | 20-07-2014 | Donated furniture and books for a library in school                                   |
| 19. | 16-08-2015 | Cows distribution to severe malnutrition children families                            |

**Source:** World Vision India Field Assistant.



**Figure 12.2: World Vision India's Financial Support for the Construction**

## **Classrooms and Latrines in the Village**



**Figure 12.3: 5,000litres Capacity Water Tanks provided by World Vision India**

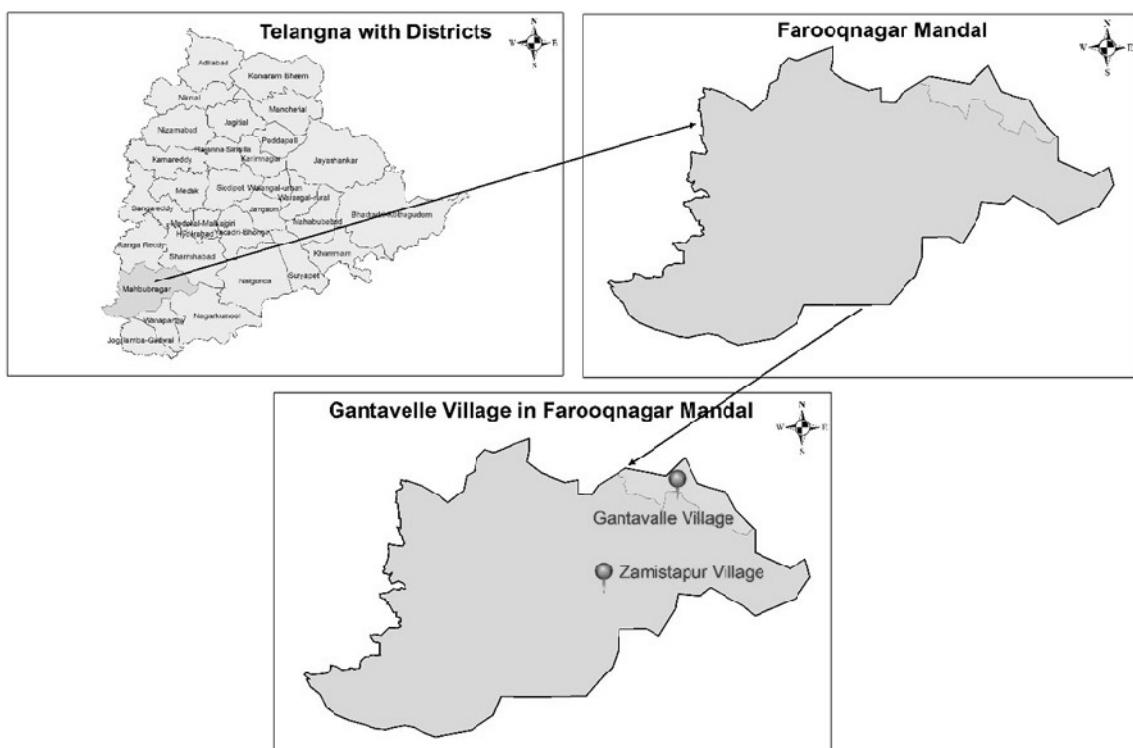
World Vision India has been sponsoring the development projects in 75:25 ratio. Every project has got 75 per cent technical and financial support from World Vision In-

dia and 25 per cent support from the gram panchayat and people.

## **Village Profile**

The village has been divided into 10 wards, and the total households in the village are 504. Among them, the Scheduled Caste (SC) households are 105, Scheduled Tribes (ST) households are 203, Other Backward Class (OBC) households are 120, Minorities are 22, Other Castes households are 04, and remaining others 50. The total population of the village is 2,073, with the total female population being 1,015 and the total men population being 1,058. Among the total population, total voters in the village are 1,151.

**Map of Gantlavelli (Map 12.1)**



Though it is a small village, all the project works have been planned and executed by the villagers with the support of World Vision India. There are seven committees in

the village namely, *Drinking Water and Sanitation Committee, Health and Nutrition Committee, Education Committee, Social Safety and Poverty Eradication Committee, Natural Resources Maintenance Committee, Agriculture Committee and Primary Convenience Committee*. All the committees are constituted only through the Gram Sabha and all the committee members are elected based on their knowledge and awareness on the issues concerned.

The Gram Sabha is conducted atleast four times a year. The people in the village dreamt of making the village a ‘model village’ for which it was mandatory to achieve hundred percent open defecation free, so they passed a resolution in the Gram Sabha meeting that all the households should construct Individual Household Latrines (IHHL). As a result, all the households have constructed latrines with the support of government and World Vision India (WVI) and have attained the‘100 per cent Open Defecation Free’ tag. After the construction of IHHL, a resolution was taken in the Gram Sabha meeting that the violators of ODF, sanitation and health committees will charge₹500 as a penalty.



**Figure 12.4: Notice of Collecting ₹500 Penalty against Open Defecation in the Village**

Financial sources for the village funds include the State and Central governments funds, several welfare schemes implemented by the governments and taxes collected in the village. In 2015, the house tax collection accumulated them ₹1,68,035(Village Profile, 2015). The funds are handled by the panchayat for the growth and development works

of the village. One such step included planting saplings on the occasion of Haritha Haram, wherein the target was 35,000 plants, of which 9,300 had been planted in 2015 and 25,700 were targeted for the next two years.

Other government schemes implemented in the village are Asara pensions, PDS, ICDS and MGNREGS, as shown in Table 12.2. Apart from this, there are eight Shram Shakti Sangams in the village. Even the literacy rate in the village is high (75 per cent).

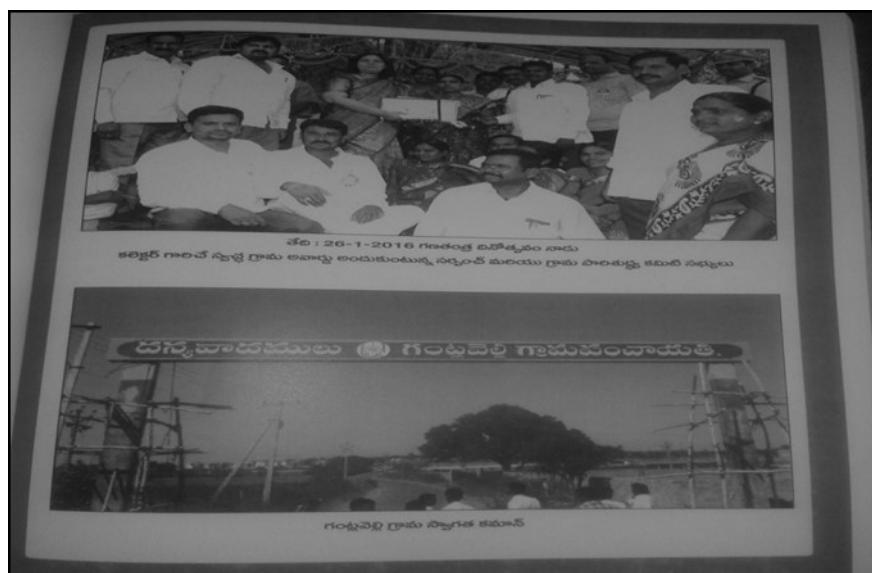
**Table 12.2:** Various Schemes and Number of Beneficiaries

| <b>S.No.</b> | <b>Name of the Scheme</b>        | <b>No. of Beneficiaries</b> |
|--------------|----------------------------------|-----------------------------|
| 1.           | Asara pensions                   | 183                         |
| a.           | Old age pensions                 | 66                          |
| b.           | Widow pensions                   | 92                          |
| c.           | Disabled pensions                | 25                          |
| d.           | Weavers                          | 0                           |
| e.           | Toddytappers                     | 0                           |
| 2.           | Ration cards in panchayat        | 486                         |
| a.           | Antyodaya Anna Yojana            | 34                          |
| b.           | Pink cards                       | 0                           |
| c.           | Whitelcards (below poverty line) | 452                         |
| d.           | Annapurana cards                 | 0                           |
| 3.           | MGNREGS cards                    | 256                         |
| 4.           | ICDS centres                     | 03                          |

**Source:** Field notes.

There is a health centre in the village, where on every second Saturday, a doctor attends to the patients and on the remaining days, ASHA workers take care of the health issues of the people. Hundred percent immunisation and institutional deliveries have been achieved and infant mortality rate is zero. Gantlavelli village panchayat has 133 soak pits, 1,816 metres length of underground drainage and 1,928 metres of CC road facilities. The Panchayat has appointed three sweepers to clean the village roads and distributed two types of baskets (wet and dry baskets) to each household to keep the domestic waste segregated at the time of disposal.

The main livelihood source of the people in the village is the farm and non-farm employment, as it was observed that about half the population depends on the agriculture sector and the remaining half depends on the non-farm employment sectors like working in the shops, construction sites, etc. The main crops cultivated in the village are paddy, maize, mirchi and vegetables like tomato, brinjal, okra, etc. The village has two milk centres and on an average, 250 litres of milk is collected each morning as well as evening. Gantlavelli has received the Swachh Bharat Award in 2016.



**Figure 12.5: Swachch Gram Award being Received by the Residents of Gantlavelli**

### **Drinking Water Sources – Water ATMs**

The most important and necessary pre-condition of a model village is the availability of clean and safe drinking water. The source of the drinking water in a village consists of three sources namely: 1. Overhead Service Reservoir (OHSR) 2. Ground Level Storage Reservoir (GLSR) and 3. Single Phase Motors.

Earlier, people had been facing drinking water scarcity and the villagers were dependent on the water supplied from the nearby town i.e., Shadnagar. The water supply

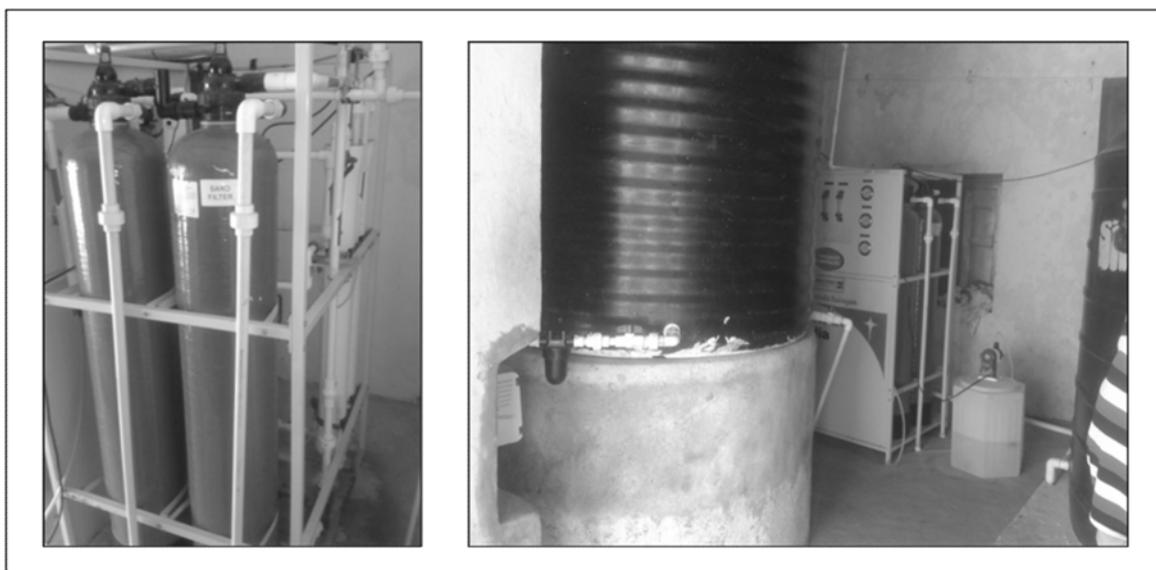
from the nearby city incurred high costs and was inadequate for fulfilling the drinking water needs of the villagers. The situation in the village led the community to improve its water supply system. A Gram Sabha was conducted and the community through a resolution, requested the World Vision India (WVI) to improve the water supply system. With the support of the government and WVI, water supply in the village was improved through by constructing two OHSR, eight GLSR and five single-phase motors. For the sustainability of water sources, recharge pits and check dams were constructed and maintained in a good manner.

Drinking water was supplied to the households through 200 individual tap connections and six community water tanks. Every morning, 6 am to 7 am water is supplied through individual taps and, the community water tanks are filled during the same time. These serve as the requisite to supply water for the rest of the day and fulfill their needs. Initially, the villagers suffered a lot due to drinking poor quality water. They suffered from diseases like diarrhoea, fever, indigestion, skin rashes and continuous vomiting. They realised that drinking dirty water for a long period of time causes problems like infertility and developmental problems like learning disabilities. The people in the village were counselled by the WVI field assistants, and the village leaders discussed the issues and came up with the idea of forming a Drinking Water and Sanitation Committee to handle these issues.

Additionally, the people in the village felt the need to construct a good water plant in the village and sought support from WVI. With the 75:25 ratio of financial support from WVI and the panchayat, they constructed a Reverse Osmosis (RO) water plant in the village in December, 2013. A Drinking Water and Sanitation Committee was formed to take care of the water plant and an operator was appointed for ₹2000 per

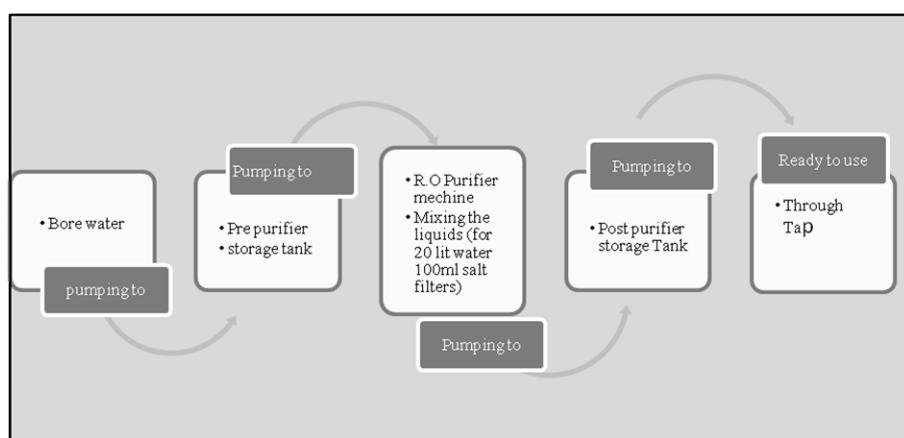
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month. The appointed person is responsible for water purification and functioning of the RO plant.



**Figure I2.6:** Reverse Osmosis Water Purifier Plant in Gantlavelli Village  
**Technology used in the Plant**

World Vision India provided an RO purifier system that cleans water through reverse osmosis. Every three months, the water is tested in the lab and currently, they are supplying tested and clean drinking water, which is devoid of any odour.



**Figure I2.7:** Process of Water Purification in the Plant

A 500-litre capacity water plant is set-up for the purification of the water through reverse osmosis and a tanker is provided with a capacity of 1,000 litres for villages. People are given ATM-like cards to draw water at the dispensing station.

### **Innovative Way of Maintaining the Plant**

The designated committee maintains a joint bank account for the water plant, and the money generated through the plant has to be deposited in the account. Thereafter, the same fund is used for the maintenance of the plant. The Committee provides smart cards to the users and for availing the cards, one has to get registered with the plant operator. This is done free of cost. The smart cards should be recharged on a monthly basis and the minimum amount of recharge is ₹100 and the maximum is ₹150.



**Figure 12.8:** Smart Cards for Users



**Figure 12.9:** Water Dispensing and ATW Machine

It is not compulsory to get oneself registered at the Water-ATM. Others can also avail the water by paying ₹2 per 20 litres at the station. The operator maintains a separate register for the registration of the cards and the amount. It was found that currently, the total number of households having the water ATM cards was 300, which was approximately 75 per cent of the total households. The remaining 25 per cent of households were not registered and amongst them, 15 per cent of the households were using purified water by paying on a daily basis. The remaining 10 per cent of the households are not interested to take this water because of several reasons. There are some old people who are habituated to tap water and some are harbouring the misconception that due to drinking mineral water, they will get health problems like joint pains, etc. The average withdrawal of water from the plant is 250 litres per day. The estimated income from the water plant through the recharge of smart cards is ₹37,500 per month.

### **Impact of the Water ATMs**

The project has become a great success in the village and the residents are withdrawing water through ATM using the smart cards at the cost of 15 paisa per litre. After installation of the RO water plant in the village, the people have actually realised the value of water, now that they have to pay a price for it. They are now using water judiciously and are not wasting it. They are grateful for the initiative as they are now getting clean and safe water. Consumption of clean water from the plant has also reduced the rate of water-borne diseases.

There is 24X7 availability of drinking water, no queues, no skipping of work or school. There is accountability on the water quality and control, price flexibility and transparency in water purchase. Through the water ATMs, the village has gained profit after deducting all expenditure incurred towards the maintenance of the ATM. The additional profit from the Water ATMs is used for other developmental programmes in the

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village.

The people of Gantlavelli village have shown strong determination and perspective towards becoming one of the model villages in the country. For achieving the goal, they started working hard with the support of WVI. To be a model village, it is imperative to provide safe and clean drinking water to the residents of the village. They even installed a high technological water purifier. Such acts have not just empowered them, they have also become aware about the value and importance of having safe drinking water.

## **Importance of Crowd Mobilisation**

It is hereby essential to learn the importance of crowd mobilisation and awareness. The inspiration people drew from the neighboring villages to perform better and the helping hand given by an NGO is quite appreciable. Coming together of people, leaving aside all differences, and working for the betterment of the society as a whole should be the goal of all people. Leadership also plays a major role as it is a daunting task to motivate all the people and lead them to a goal.

## **Points of Deliberations**

- i. The SDG goal number 6 talks about clean water and sanitation. As the resource depletes, the value increases. Think of a strategy wherein water conservation and optimum usage mechanism maybe worked out for a drought-prone rural area.
  
  - ii. The people in the village drew inspiration from their neighbouring villages that were taking heed of their problems and resolving them through focused interventions. Do you think that leadership plays a great role in crowd mobilisation and coming together of people at a consensus? Discuss.
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- iii. When the basic necessities such access to clean and safe drinking water, health and education are taken care of, people can aspire for better developmental strategies. Comment.

## Case Study Thirteen

### Tank de-siltation at Ontimamidipally

#### Introduction

Telangana lies in Deccan Plateau which is at +110.00 metre level above the Godavari river flow and is geographically located in a semi-arid area. The State receives an annual rainfall of 700mm to 800mm, and 65 per cent of the population depends on agriculture. Over 85 per cent of the farmers belong to the small and marginal category with an average landholding size of 1.11 ha. More than 63 per cent of farmers depend on rain-fed agriculture and 70 per cent of the cropped area is also rain-fed in nature.

As a result, the farmers are dependent on various irrigation sources like minor irrigation ponds, bore-wells and dams among all these. Minor tanks played an important role here. In Telangana, there is a chain of tank systems, wherein the surplus water from the upstream tank flows to downstream tanks in the chain and every tank has an ayacut of its own.

#### Background

Irrigation tanks are one of the major water and common property resources in India, especially in the southern part. Tank-based water management system is an integrated watershed system and needs to be focussed upon. Hundreds of big and small tanks were constructed in Telangana region during the Kakatiyas, Qutubshahis and Asafjahis, who ruled this region for centuries. After the formation of Andhra Pradesh, all the governments had given more importance to major irrigation policy. It resulted in the destruction of minor water conservation chain of tanks system and the ignorance of

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maintenance allowed them to face extinction by way of siltation, breaches, encroachments, etc. There are 46,531 minor irrigation sources with an irrigation potential of 25 lakh acres out of which only 37 per cent is irrigated, leaving a gap of 63 per cent irrigation potential created. With the disappearance of tank system, the self-sufficient villages of the State have become drought-prone.

In order to tackle the situation in an effective manner, Bala Vikasa initiated a community-centered tank de-siltation activity in the late 1990s using modern machinery to connect communities with traditional practices of fixing soil fertility. Bala Vikasa motivates and mobilises the farmers to procure required tractors at their own cost and transport the silt to their own farms. To encourage the active participation of the farmers, Bala Vikasa provides free excavation machines.

## **Village Profile**

Community-centred tank de-siltation work started in Ontimamidipally village in Inavole mandal in Warangal district of Telangana State in 2002 with the support of Bala Vikasa. The total households in the village are 350, the total population is 3,500, out of which the male population is 1,800 and the female population is 1,700 (Gram Panchayat office). It is one of the model villages which has flourished with support from Bala Vikasa organisation. The village has 3,500 acres of agricultural land and all the farmers depend upon the well, ponds and bore wells for the provision of water toward cultivation.

## **Role of Bala Vikasa**

Bala Vikasa has played a key role in the development of the village. It has empowered and motivated the villagers by conducting meetings and tours. It organised an educational tour for some of these people to Ralegan Siddhi village which has the spirit called Anna Hazare behind it. Twenty female and 51 male farmers participated in this exposure visit and were educated on different watershed activities like gully treatment,

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check dams, loose boulders, rock fill dams and mostly farm ponds. After the visit, a Gram Sabha was organised in which 90 per cent of the families participated and discussed future plans. Four new committees were formed to ensure the execution of the decisions made in the united Gram Sabha.

### Tank De-siltation

In this village, there is an irrigation tank called “*Ellamma Cheruvu*” for water supply. The tank depends only on rainwater, as there is no other source of water. Every year, the tank is filled with rainwater during the rainy season, usually during the months of June to August. Farmers would cultivate their fields with this tank water, but after successive years of usage, the tank got silted and farmers faced severe problems of water scarcity with the drying up of groundwater and bore wells. They were forced to cultivate only one crop per year that too, only during the rainy season.



**Figure 13.1: Ellamma Cheruvu (Irrigation Tank) in Ontimamidipally**

*Ellamma, an octogenarian keeps guard to the Ellamma Cheruvu. She even shares the name with the tank and also stays nearby. She has done this almost all her life. There is a small temple made on the banks of the tank and Ellamma looks after the temple as well. She says that she has witnessed good times and bad times, and faced the distress brought in by droughts and water shortage. She feels happy that tank-desiltation takes place and appreciates conservation brought in by the process.*

**Figure 13.2: Ellamma, the Caretaker**

In 2002, the villagers approached Bala Vikasa for help. Bala Vikasa organisation called a meeting for discussing the problems faced by the village farmers. They suggested that de-siltation of the irrigation tank is the only solution and it would also be good for cultivation. With the support of the Bala Vikasa, the tank was desilted for the first time in 2002, and since then, three times de-siltation of the field channel has taken place. The de-siltation of tank took place the second time in 2009-10 and 2010-11 with the support of NREGS programme, and third time in 2015-16 with the support of Bala Vikasa.

To restore the minor irrigation sources, the Government of Telangana introduced a programme called ‘Mission Kakatiya’. The objective of Mission Kakatiya is to enhance the development of agriculture-based income for small and marginal farmers by accelerating the development of minor irrigation infrastructure, strengthening community-based irrigation management and adopting a comprehensive programme for restoration of tanks. Recently, the government of Telangana announced ₹1.3 lakh of fund under ‘Mission Bhagiratha’ scheme.

### **Community-centred Tank Desiltation**

The ‘Ellamma Cheruvu’ is located in Ontimamidipally, Inavole mandal, and the village itself is situated 30 kms from Kazipet and 4 kms from the main road. The total

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length of the Ellamma Cheruvu is about 150 to 200 acres. The village has a separate five-member committee for the field channel, including two tractor owners and four farmers. There is another committee called “Ayyacuttu Sangham” for maintaining the irrigation tank. The members of this Sangh belong to a particular caste i.e., Mudirajus (OBCs). Supplying water to the fields from the tank and repairing the feeder channels is the main duty of the Sangham. All those farmers who benefited from the field channel pay four bags of paddy per acre of land. Currently, 100 acres of land is being irrigated by *Ellamma Cheruvu*. This is the first step to carve their success for integrated watershed development in the village. With the support of Bala Vikasa and District Water Management Unit (DWAMA), 30 farmers came forward to dig 30 farm ponds. This again resulted in water conservation, further yielding economic returns.

Tank irrigation has a huge bearing on the generation of rural employment, poverty reduction and agricultural growth. The sheer size of the command area under tank irrigation makes it a large centre of agricultural production and provides a critical opportunity for commercial agriculture through market linkages.

## **Impact**

De-siltation of *Ellamma Cheruvu* (irrigation tank) has had farmers benefited in two ways. One, they had sufficient water for cultivating two crops per year (kharif and rabi), and the other is that the excavated soil is deposited in their fields. Due to depositing the excavated soil in the agricultural fields, the productivity of the field has increased tremendously. Additionally, some of the nearby wells got recharged, and were used for cultivation, and the groundwater level also increased in the village. Moreover, villagers generated income from the de-siltation of the channel.

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**Figure 13.3: Land Cultivated with Ellamma Cheruvu (irrigation tank)**

In 2015, the village committee earned ₹3 lakh from the Ellamma Cheruvudesiltation. Farmers showed interest in depositing the soil in their fields. During 2015, from the desiltation of the channel, 32,560 trucks of soil was excavated and deposited in the fields of farmers. The money was used for the construction of two graveyards compound walls, plantation in the village and purchase of one sound system for the village panchayat.

The agricultural scenario in India is primarily based on the onset of monsoons and adequate rainfall. With the irregular and sporadic rainfall, the harvests are hit hard. There are frequent droughts leaving the farmers dismal, who mainly depend on surface and groundwater for their irrigation needs. Thus, old irrigation tanks emerge as crucial sources of water for such farmers. However, the silt deposits at the bottom of the tanks through the years significantly reduces the storage capacity of these tanks, while preventing the recharge of groundwater tables. This has affected food production as well as

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the environment, and the issue needs redressal.

The excavated silt, an organic nutrient-rich soil, known for its manure like the capability to optimise crop production, is transported to farmers' fields. This has resulted in preserving the environment and maintaining ecological balance.

Through support drawn from Bala Vikasa, the people have been able to deal with not only the problem of siltation, but also are able to increase the fertility of soil for their farmlands, further elevating the water table levels. The de-siltation of the tank has brought about an increase in agricultural production through improving groundwater recharge and consequently improving the economic, social and environmental well-being of the rural people.

### **Points of Deliberations**

- i. Discuss the multi-dimensional benefits of tank de-siltation.
- ii. The farmers are a vulnerable lot and do not have much awareness about raising water table levels, desiltation, etc. A public-private partnership comes in handy in such a situation wherein handholding is provided for development. Critically examine the case and highlight the issues in light of this statement.
- iii. Having a cultural dimension to resources such as tanks, ponds, rivers, hills, etc., helps in bringing a religious and emotional factor that helps in preserving the resources and using them optimally. Comment.

## Case Study Fourteen

# Historical Waste and Garbage Mining -A Way to Clean Up Long-time Garbage Dumps in Manachanallur, Tamil Nadu

### Introduction

There are Gram Panchayats in various places of the country making efforts to put in place proper waste collection, and disposal methods. When it comes to dealing with wastes, making arrangements for collecting and handling the current wastes generated by households and others must be construed as addressing only a part of the problem. The other dimension to this issue is *waste generated for years and dumped in some designated locations (dump yards), and forgotten once and for all.* The size of such garbage dump yards keeps growing and expanding as the years go by. This is what some garbologists call '*historical wastes*' - huge heaps of wastes dumped away and forgotten, which often is growing due to daily dump. The age of this garbage dump could be not less than 10 – 15 years in some places, and more than 20 years in others. At this moment, we are drawing up plans to deal with various types of wastes generated by households, communities and marketplaces today and in the future. The question now is about historical wastes? What do we do with them? How do we reduce the size of such dump yards so as to gradually recover the space it occupies?

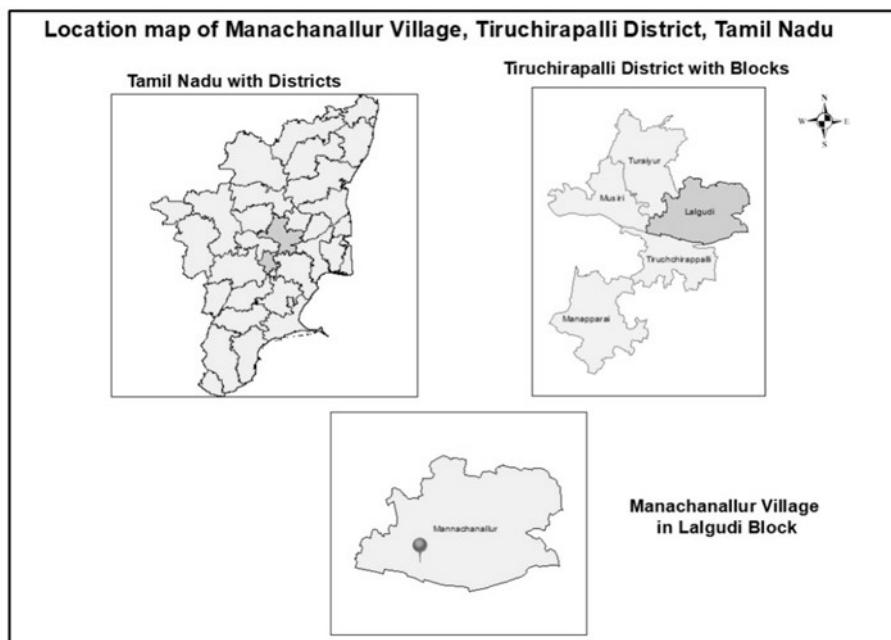
### Problems of Historical Wastes

- ◆ The space that dump yards occupy generally keeps growing to render such places/ area unacceptable or unbefitting for other use.
  - ◆ Historical wastes are often mixed wastes of all types. Therefore, any attempt to lay hand in them is like taking the lid off a can of worms.
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- ◆ Long-time dumping leads to accumulation/emission of poisonous gas in such areas rendering such areas unhealthy and unliveable.
- ◆ Long-time dumping leads to leaching to take place causing contamination of groundwater/water bodies in the vicinity.

Therefore, it makes sense to plan for cleaning up such historical wastes as part of the waste management efforts. It is sensible to make a separate plan that will be carried out simultaneously to clean up historical wastes, while a parallel plan is in place for dealing with day-to-day waste collection and management. Most of the Municipalities/Town Panchayats/Gram Panchayats plan to deal with the wastes generated daily. Thus far, a plan being executed for dealing with historical waste is something unheard of. Practically, it might offer valuable lessons in waste management. Hence, this issue was studied. Manachanallur has been doing a similar exercise in historical waste/garbage mining and is further discussed here.

### **Map 14.1: Map of Manachanallur**



## **Profile of Manachanallur**

Close to the banks of river Kaveri, lies the district of Tiruchirappalli in the State of Tamil Nadu. As per the Census 2011, there are forty villages in this Taluk. The total population was 25,931, wherein males constitute 49 per cent of the population and females 51 per cent. Manachanallur has an average literacy rate of 78 per cent, higher than the national average of 59.5 per cent (male literacy is 80 per cent, and female literacy is 69 per cent). In Manachanallur, 11 per cent of the population is under six years of age.

## **Dealing with Historical Wastes**

Manachanallur has come up with door-to-door collection and segregation of wastes. It has employed 15 sanitary workers and 40 SHG members for the same. The workers are using a total of 80 pushcarts that can collect about 60 kg of waste per trip. What distinguishes the town panchayat from others is that the waste is collected separately at the earliest point and brought to the compost yards in four mini lorries, one for bio-degradable and others for non-bio-degradable. The bio-degradable wastes are stored in 16 pits in moistened condition for 45 days to produce compost and it would be sold as manure. Manachanallur has generated a profit of ₹25,000 last year, and the amount is being credited into the general fund account of the panchayats. It must be noted that the solid waste management plant in Manachanallur has been awarded ISO certification for proper implementation.



**Figure 14.1: Segregation of Degradable Waste (Source: DT Next, 2017)**

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Some Town Panchayats in Tamil Nadu (e.g. Samayapuram, and Manachanallur) serve as an exemplar in demonstrating how to deal with such historical wastes. The main challenge lies in removing residual wastes or finally reject those that are unfit for treatment from wastes that can become compost after treatment. This takes time, and it is a long-drawn process. But it is worth the time spent. We recover the land and salable manure from such historical wastes. The process starts with the ‘windrow composting method’.

Generally, garbage is dumped in heaps making it look mountainous as years go by. In a given site (Manachanallur, in this case), it could be several tons, say 100 tons in a garbage dump. The plan is to clear up 0.5 ton per day and recover the dump yard as a clean place in about 200 days or in the worst-case scenario, it might take a maximum of one year. They are following the ‘windrow composting method’ to deal with this kind of aged waste. The sieved manure, packed in 25 kg bags, is sold at ₹ 50. The newer garbage collected is handled separately. Heaps of wastes are arranged in long rows for aeration. The garbage in rows is turned and tossed over frequently, at least once a day, after applying EM solution or inoculums. The workers who go for door-to-door collection of waste on a daily basis are engaged in ‘old garbage mining’ after their regular work of waste collection, secondary segregation, and composting are over for the day. Teams of sanitation workers (5–6 of them) on a rotation basis involve themselves in garbage mining at least 2–3 hours daily to be able to reduce the dump.

## Windrow Composting

Manachanallur Town Panchayat follows the ‘windrow composting method’. The same has been elaborated in Box-I.

**Box – 1: What is Windrow Composting?**

This is one of the simplest methods to compost wet waste. This is converting wet waste it into a stable mass by aerobic decomposition method. In areas/regions, where we have higher ambient temperatures, composting in open windrows is preferable. In this method, segregated wet waste is delivered on a paved/unpaved open space. It is good to have a roof (made of thatches or tin sheet) in order to prevent rains spoiling the heap. In this method, garbage is kept on levelled and well drained platforms in 10 – 12 rows with each row 3 m long X 2 m wide x 1.5 m high, with a total volume not exceeding 9.0 cu.m. Once in five days, the heap is turned upside down so as to provide aeration, and to keep under control, the multiplication of insects and larvae. During the first two turns, there is EM solution sprinkled on the heap so as to accelerate the decomposition process. During the subsequent turns, if the heap is found to be dry, water is sprinkled in order to provide sufficient moisture for proper decomposition to take place. Sprinkling water should serve the purpose of maintaining moisture levels – just enough. If we found water oozing (called, leachates) from the rows, the indication is too much water has been sprinkled, causing release of leachates. Thus, in about a month's time the garbage turns into manure. The quantity of compost after decomposition becomes normally around 1/3 of the original mass. Then the manure is passed through a sieve (with holes to the size of 1.5 mm to 2 mm) to remove oversized particles. The oversized particles can go back into the garbage rows again - along with a fresh heap of wet waste. As no odourous gases are generated in this process, it is easy, environment friendly and hence commonly preferred.

It is essential to understand what an EM solution is. The same has been explained in Box-2.

**Box – 2: What is EM Solution?**

E.M. is an abbreviation for Effective Micro-organisms. It is available in the market (or in on-lines stores such as Amazon.in). EM solution is applied to the compost heap so as to reduce troublesome odours and flies as well as to improve the compost process and quality. Preferably spray on with a hand sprayer to prevent over wetting the compost heap, and it is good to apply it at each addition of fresh material. Apply at the rate of one litre per square metre, without making your heap too wet. EM solutions helps in many ways viz. EM cultures can suppress soil-borne pathogens, accelerate the decomposition of organic wastes, increase the availability of mineral nutrients and useful organic compounds to plants, enhance the activities of beneficial micro-organisms, e.g., mycorrhizae, nitrogen fixing bacteria. EM helps to increase beneficial soil micro-organisms and suppression of harmful ones.

## Outcome

The place recovered from the dump yard provides additional space that can be used for better handling of the current wastes. The Waste Management Unit is also maintained in a neat and clean manner.

Usable compost sifted from the waste (historical) is available for sale. This can be used as manure in the garden, developed within the premises of the Waste Management Unit. The compost can be sold too. The inert wastes (residual waste) should be treated like Resource Derived Fuel (RDF). There is neither a dump yard nor any historical waste accumulation.

## Reasons for Not Burying Wastes

Whenever mixed waste containing multiple streams of waste is dumped in one place, the organic and inorganic content of the waste interact chemically and give rise to what is called ‘leachate’. Leachate from purely organic waste cannot be toxic, but leachate contaminated with non-biodegradable waste contains high levels of nitrates, sulphates, etc., and thereby is loaded with pathogens. In other words, they contain some of the most toxic chemicals, mainly heavy metals. When leachates loaded with such toxic chemicals and heavy metals reach the soil and water, they enter the plants, which are further eaten by animals. The ingestion of plant and animal-based foods thereby becomes the largest source of toxic heavy metals in humans. Also, rain can wash the ash (from burning the waste) into groundwater and surface water, contaminating drinking water and food.

## Reasons for Not Burning Wastes

Burning of wastes results in most toxic chemicals. Many dangerous health conditions can be caused by inhaling or ingesting even small amounts of these pollutants. Small children, the elderly, or people with pre-existing respiratory conditions can be easily vul-

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nerable to some of these pollutants. Backyard burning is of particular concern because it produces significant quantities of dioxins and furans. Currently, however, the largest quantified source of their emissions is the uncontrolled burning of household trash (backyard burning). Studies have shown that only small amounts of chlorinated materials in waste are required to support dioxin formation when burning waste which means that even when materials containing high levels of chlorine, such as PVC, are removed from household trash, burning the waste still creates dioxins because nearly all household waste contains trace amounts of chlorine. It can cause several diseases including cancer, skin disorders, liver and kidney problems, impairment of the immune system, infertility, reduced sperm count and birth defects when pregnant women are exposed.

Much of the dioxins and furans created and released into the air through backyard burning settle on plants. These plants are, in turn, eaten by animals, which store the chemicals in their fatty tissue. People are exposed to dioxins primarily by eating meat, fish, and dairy products. Plant-based foods and direct inhalation are also other routes of exposure.

Dioxins and furans, classified as Persistent Organic Pollutants (POPs) are carbon-based organic chemical substances. They possess a particular combination of physical and chemical properties such that once, released into the environment, they remain intact for exceptionally long periods of time; they become widely distributed throughout the environment as a result of natural processes involving soil, water and most notably in air; accumulate in the fatty tissues of living organisms including humans, and are found at higher concentrations at higher levels in the food chain (bio-accumulative); are toxic to both humans and wildlife. (**Source:** United States Environmental Protection Agency & Sushitwa Mission, Kerala. August-2017)

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## Conclusion

This is about the biodegradable wastes only. From these wastes, recyclables have been taken away by the rag pickers over the years. There are residual wastes (at least about 25 per cent – 30 per cent) from the old garbage heap. The problem these town Panchayats face now is how to deal with this ‘residual waste’ without burying or burning them. In reality, the Panchayats having managed to deal with up to 70 - 75 per cent of the historical waste in itself is a great thing. The case of Manachanallur Panchayat is exemplary when it comes to dealing with aged dump yards that occupy space and pollute the environment.

## Points of Deliberation

- i. It is essential for community people to understand the dangers associated with landfills. Tribals are most vulnerable in this context as most of the landfills are near to their hamlets. What other alternatives can you suggest instead of dumping waste in landfills?
- ii. Work out a strategy keeping in mind the 4 R's –Reduce, Reuse, Recycle and Recover in the context of the case discussed above?
- iii. On your next field visit, observe the various indigenous ways of incineration and composting, and discuss their advantages and disadvantages.

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## Case Study Fifteen

# **ANMOL- New Digital Tool for India's Auxiliary Nurse Midwives (ANMs)**

### **Introduction**

**S**ince the last three decades, Auxiliary Nursing Midwives (ANMs) across the State of Andhra Pradesh have been visiting homes to spread awareness about health issues. Their communication skill is the only tool these front foot soldiers use to convince villagers. In this light, lately, it was recognised that these front foot soldiers needed capacity building, pieces of training and skill development for performing their duties efficiently. In Andhra Pradesh, ANMs were recently given hand-held devices under ANMOL (ANM Online).

ANMOL is an android-based application, developed to facilitate seamless work of ANMs as well as ensuring the collection of good quality data and its digitisation at its source. This is developed for the Ministry of Health and Family welfare and is synchronised with a web-based RCH portal. This works offline and can also be synchronised with the web portal automatically when connected with the internet and also on the user's request.

### **ANMOL APP Launch**

Celebrating the World Health Day- 2017, the Union Minister of Health& Family Welfare, launched several new e-health and m-health initiatives, including 'Swasth Bharat Mobile application' and 'ANM Online application-ANMOL'. ANMOL is a tablet-based application that allows ANMs to enter and updated data for beneficiaries of their jurisdiction.

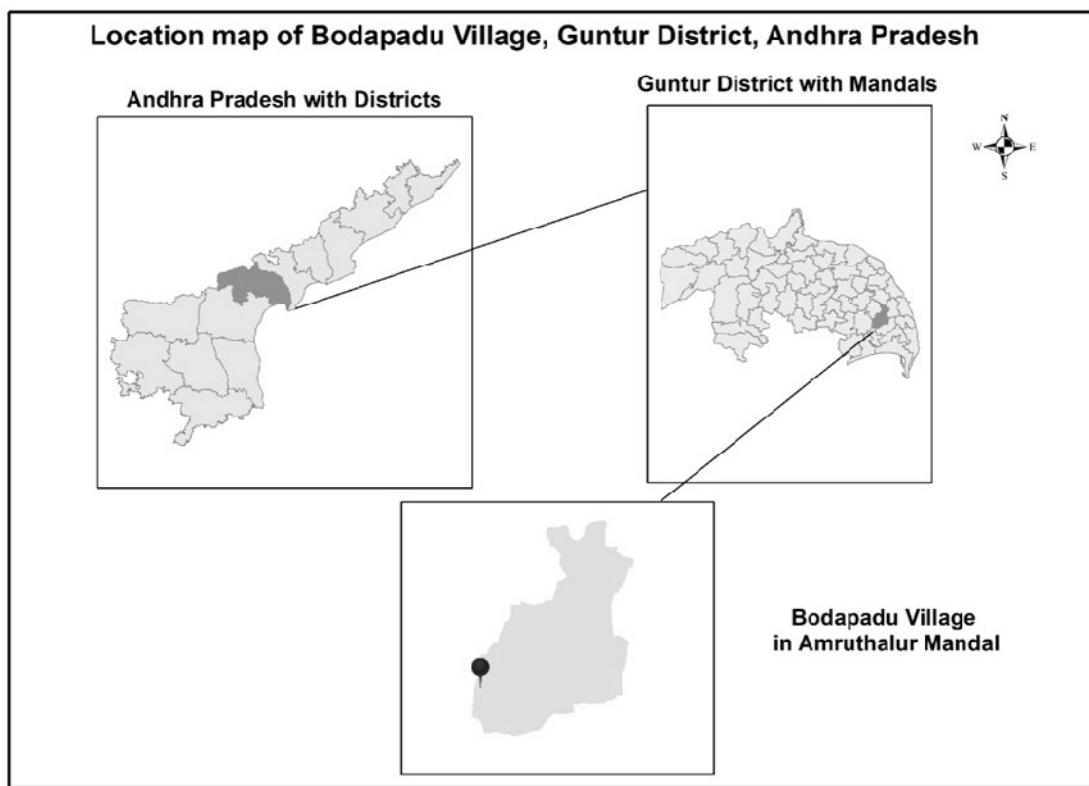
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tion. This will ensure more prompt entry and updating of data as well as improve the data quality since the data will be entered “at source” by providers of health services themselves. Since the application is Aadhaar-enabled, it will help in authentication of the records of field workers and beneficiaries.

## **Village Profile**

Bodapadu village is in Amruthalur mandal in Guntur district of Andhra Pradesh. The total households in the village are 461, and the total population of the village is 1,466, out of which the male population is 704 and the female population is 762 (Census, 2011). The residents of the village are not well-versed with the modern ways that lead to development, and are following traditional modes of livelihoods.

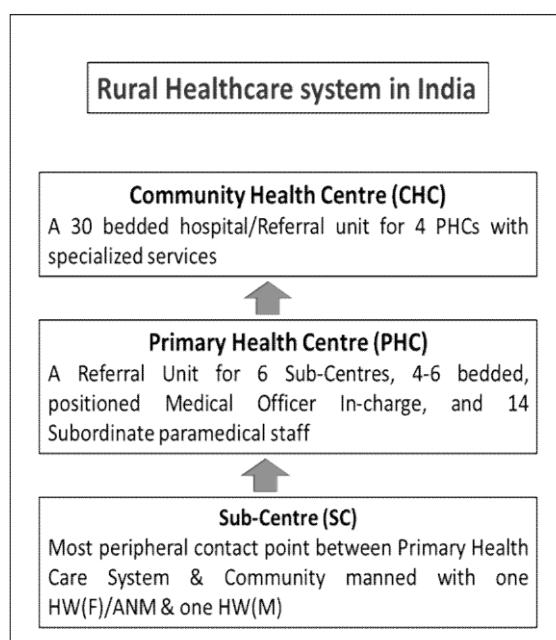
**Map 15.1: Map of Bodapadu**



Initially, the villagers were reaching out to the ANM and ASHA for medical aid. They had understood that the first contact person in case of access to health was either of them and thus garnered a lot of respect.

## **Role of ANM**

Auxiliary Nurse Midwives (ANMs) are regarded as grass-roots workers in the health organisation pyramid. Their services are considered important to provide safe and effective care to village communities. They assist the communities in achieving the targets of national health programmes. An auxiliary nurse midwife is someone who assists in the provision of maternal and new-born health care, particularly during childbirth and also in the prenatal and postpartum periods. They possess some of the midwifery competencies, but are not fully qualified as midwives. They have basic nursing skills and no training in nursing decision-making. Auxiliary nurse midwives have some training in secondary school and may have a period of on-the-job training, sometimes in apprenticeships.



**Figure 15.1: Structure of Rural Health Care System in India**

## Introduction to ANMOL

An ANM handles more than one village, and on an average, carries 12-15 separate registers to record key data indicators to provide information to her supervisors while on the go. They have to carry many registers while working in the field and end up doing double the work that is required i.e., first, the entry in registers and then finally, an entry in the central servers. The work of manually copying the data from one register to another also consumes a lot of time. In August-2016, mobile tablets (Figure 15.2) were distributed to the ANMs and training with hand-on sessions were provided. Taking heed of the issues faced by ANMs and to improve the overall standards of child and maternal health service provision in India and related data collection, the Ministry of Health and Family Welfare, Government of India, with support from UNICEF, introduced an android-based, tablet-based application - ANMOL.

ANMOL or ANM Online is a solution that aims to bring better healthcare services and better consultation to millions of pregnant women, mothers and newborns in India. ANMOL ends drudgery for ANMs by making their work paperless. The tablet allows them to enter and update the service records of beneficiaries on a real-time basis, which ensures prompt entry and updating of data. Since it is a completely digitalised process, the high quality of the data and accountability is maintained.

The tablet complements the ANMs' tasks as counsellors by providing them with readily-available information about newborns, pregnant women and mothers in their area. Furthermore, the list of an ANM's pending tasks is also auto-generated. Apart from these facilities, women and couples can be counselled using audio and videos on ANMOL tablets on subjects like high-risk pregnancy, immunisation and family planning. All the data that ANMs put into the tablet get updated automatically in the central server. To tackle the internet outages, the tablet works in off-line mode and as soon as

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the internet connectivity is available, the data gets downloaded to the central server.

Through this initiative, an effort is made to improve the quality, effectiveness and timeliness of the delivery of quality services, specifically to rural populations, to ensure better healthcare for women and children.

The application aims at bringing awareness to the remotest populations, underserved communities and urban slums through images and videos, and educates them about initiatives on health, maintenance of good hygiene, basic health care and precautions

### **Benefits of ANMOL**

In the ANMOL application, the home screen has nine icons displayed in three rows. The upper row shows the utility for ANM, i.e., Dashboard, RCH Register and VHND. The middle row shows the eligible couple, pregnant woman and child care. The lowest row of buttons is useful for counseling, seeing work plan and update regarding synchronisation status with the server. An ANM shared that earlier she had to carry different types of registers and enter the data into separate registers. After introducing the app, she is not carrying any registers, and directly entering the data to the servers. A lot of time and energy are saved while using the tabs. Now, she is giving counseling to the women in a better way by showing videos and audios through the application. Like other ANMs, she was quite apprehensive about learning the functions of the ANMOL tab and was unsure whether she would be able to operate it properly. But after the training sessions, she has quickly picked up the working of the tablet.



**Figure 15.2: Auxiliary Nursing Midwives Showing the Government Provided Tablets**

Seeing the work of ANMs at Bodapadu village, the ANMs working in nearby areas have also taken training to use ANMOL. Even though they feel comfortable with this kind of technology usage, they have some technical problems like internet signals, charging, etc. Finally, they opine that they are satisfied with the introduction of the app and maintenance. They also suggested that instead of providing tabs, it is better to give laptops.

At the other end, even the community people have found the intervention quite interesting. The women feel excited when data is being fetched in the tablet and the coloured user interface raises their interest levels. They feel that the ANMs are performing better now as all the data is saved in the tablet and one can revisit the indicators and see the change.

The technological intervention has really improvised service delivery of the ANMs and has boosted their confidence in their work. Accuracy and transparency have increased manifolds. They feel technologically empowered having to enter data in a tab-

let and making an impression on the community members. The roadmap of ‘Digital India’ is definitely set.

### ***Snippet One***

In this village, there is an ANM, who is quite young. Her primary responsibility is to provide primary health care to mother and child, see to their nutrition, and conduct family planning and immunisation programmes. She is one of the 2,93,000 Auxiliary Nurse Midwives (ANMs), village-level female health workers in India, who are the first contact persons between the community and the health services in India. She has to collect the data on around 200 key indicators related to health. This is done manually and she has to maintain a thick register for the same. The registration requires information of the child, pregnant women, eligible couples and other health-related issues. The job is tedious and mistakes are unforeseen. She shared that initially, she had to enter the data twice, first by hand and then on the computer again. Going paperless has reduced her tedious job and she has enough time to concentrate on other issues.

Now that she is trained in using the ANMOL, her work has eased out. Looking at her good performance, the Medical Officer has appreciated her work and this has resulted in other ANMs follow suit.

### **Bottlenecks**

Initially, the ANMs that underwent training felt that this was a new way of burdening them. Those who were not very good with gadgets and User Interfaces also found it tough. But the UNICEF team provided constant hand-holding. The availability of internet was one major challenge. But a server was set-up at the district hospital for updating the central server.

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## Points of Deliberation

- i. Effective technological interventions have a better chance of implementation in rural areas if proper training and handholding are provided. Discuss.
- ii. The health scenario in India needs focussed attention. With the SDGs setting goals for development, a strategical framework needs to be designed for improving the IMR, MMR, TFR and so on. How do you envisage to bring in awareness among people living in rural areas regarding the same?
- iii. A snowball effect is seen when it comes to knowledge transfer, especially in rural areas. Identify such changes brought about by the snowball effect, be it in using toilets, enrolling in school, getting a job card under MGNREGA, or taking a membership in an SHG group. Deliberate on the factors that lead to such changes and how they can be reinforced.

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