

## **Movement and Action Network for Transformation in Rural Areas (MANTRA)**

An alternative paradigm of Community-led Habitat Development in rural Odisha

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*“Our village is better than the town. We have 24\*7 piped water supplies to all families, without exception. Every family has its own toilet and bathing room as well. When we seek marriage alliances, our daughters ask us – ‘ would there be similar facilities there as well?’”* Lalita Malik of Tamana village in Ganjam district excitedly shared this, when asked what changes they see in their lives in the recent years.

63,000 families across 1095 villages in Odisha today echo similar sentiments. These are people, who have participated and, subsequently, taken ownership of the water and sanitation programme promoted by Gram Vikas.

Gram Vikas is a rural development organization working with poor and marginalized communities of Odisha since 1979. Presently, it is operational in 24 districts in Odisha, covering a population of over 306,561. Since 1992, Gram Vikas has been implementing its community-based sanitation and water supply programme, in which each family in the village builds its own toilet and bathing room, with piped water supply from a common overhead water tank, ensuring a 24\*7 access to protected piped water supply to all families all through the year. MANTRA (Movement and Action Network for Transformation in Rural Areas) is the overarching framework of Gram Vikas’ habitat development initiatives.

### **The context**

The issue of water and sanitation has been recognized at international levels for many years now. There is also no dearth of statistical data at the global and the national level, which point out the sorry state of affairs in the area of water and sanitation.

Odisha, one of the poorest states in India, has a population of close to 37 million of which 84% live in rural areas (Census 2011); over 60% of the population is below the poverty line, defined as Rs.12, 000 (\$240) per family per annum. According to a survey conducted by Gram Vikas in 2004, of 4399 households in 49 villages across 9 districts of Odisha, less than 1% had access to piped water supply.

In the early 1990s, Gram Vikas conducted studies and found that over 80% of the cases of morbidity and mortality in rural Odisha could be traced to poor quality of drinking water, which was to a great extent, as a consequence of the callous attitude towards human waste disposal. Human waste, in its raw form, found its way to the same water bodies, people are dependant upon.

In the absence of proper mechanisms for sanitation, women have to bear the terrible indignity of defecating in the open. In order to achieve some level of privacy, women rise before dawn and have to endure the humiliation of searching for discrete locations to defecate.

Women spend a better part of their day fetching water for household needs. This drudgery is more acute during summers, when women have to spend hours together, traversing nearly four to five kilometers to fetch water. In most villages, the women would also take along with them, their girl children to fetch that extra little water they could carry. This meant that sending girls to school was given lower priority and as a result, attendance figures for girl children were abysmal.

In the absence of a protected enclosure where women could take a bath, they are forced to bathe in the common village pond. In these ponds, due to the presence of men on the other side, women are mostly forced to resort to only insufficient cleaning of their bodies. Moreover, in summers, communal bathing in turbid waters of a shallow pond was an instant recipe for the spread of skin diseases.

***Social exclusion:*** The experience in Odisha showed that exclusion – of *dalits*<sup>1</sup>, *adivasis*<sup>2</sup>, lower castes, widows, and women in general – is the bane of rural society. This has grown into a deep-rooted hegemonic system, where the excluded now believe that it is their fate to be excluded and those excluding them; believe that it is their right to do so. To achieve an improvement in the health status and a better quality of life in rural areas, Gram Vikas felt strongly that a process where communities go through an experiential learning of social inclusion is absolutely necessary.

### **The realization**

Gram Vikas realized that water and sanitation might be the only way where an entire community could come together to have their first experiential learning of inclusion. What was important was to come up with a win-win solution for all the stakeholders in the village. In the community-based sanitation and water supply programme implemented by Gram Vikas, water and sanitation forms an entry point activity, aiming to improve the quality of lives of rural areas, demonstrating as to how a socially inclusive, gender equitable, people friendly and financially viable model of sustainable and holistic development can be constructed, where everybody is a winner. Those who had been previously excluded from most development activities, now become a part of the progress that the entire community is making. Even those who have been excluding others from different spheres of society benefit in this instance, since, from the point of view of environmental sanitation, it is in their interest that every single individual in the village has access to a means of safe disposal of human waste.

The notion that rural masses basically need only low-cost (almost always taken to mean low-quality) solutions to their problems is by now a part of the psyche of policy makers. There is abject neglect of the rural people's needs and their aspirations. The double standards that the self-serving ruling classes hold make them blind to even the basic needs of the rural poor, while trying to secure the maximum sops for the elite. Plans

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<sup>1</sup> *Dalits* were considered 'Untouchables' in the Hindu Caste system. During the struggle for Independence, Gandhi referred to them as '*Harijan*' or the Children of God. Today, they are designated as Scheduled Castes under the Constitution of India.

<sup>2</sup> *Adivasis* are the indigenous people, designated as Scheduled Tribes under the Constitution of India

rolled out from the top and histories of short-term low-quality fixes to problems in rural areas have contributed to their low self-esteem and dignity.

What is basically required is an attack on the feeling of helplessness that has enveloped the minds of the rural poor due to their inability to even attain a 'threshold level of quality of life'. The 'threshold level of quality of life' refers to a situation where communities have satisfied the most crucial basic needs of life and are in a position to dream of further improvements. We believe that this 'threshold level' is a pre-requisite for the rural poor to begin to feel a sense of dignity and self-worth – of being second to none.

We also realized that institutional mechanisms could be developed around this programme, which would be the first experience for a community managing their own village institution and financial resources. The marginalised sections of the community need to be given opportunities to sit together with the more powerful sections and negotiate issues regarding the village on equitable terms. This builds the capacities of the community and instills in people a high level of confidence. Villagers learn how to deal with conflicts and act as pressure groups against vested interests within their village and outside. They learn to question and hold accountable the village committee that is elected by them. Villagers learn the ropes of maintaining public accounts, organizing general body meetings and elections

### **The mechanism**

In MANTRA, every household in the village constructs for itself, a toilet and bathing room, with 24-hour piped water supply to both the toilet and bathing room as well as to the kitchen of the house. The water is supplied from an overhead water tank constructed on the basis of estimates of per capita consumption of water (of 70 liters per day), projected for a population twenty years hence. This is done so that every household can have 24-hour running water supply on their taps. The water is pumped up using electricity where available and in the hilly areas, water is sourced from perennial springs using the gravity flow system. Where either of these possibilities does not exist, solar power has also been used, besides diesel and kerosene pumps.

Gram Vikas believes, that as primary beneficiaries, people must pay for their own development. People contribute at least 60% of the costs of toilets and bathing rooms (costing a total of Rs. 25000) and up to 30% of the cost of establishing a water supply system. The idea is to make people contribute substantially, since, that is critical in bringing a strong sense of ownership for the assets created. People construct their own toilets and bathing rooms. Towards the construction of an individual toilet and bathing room, Gram Vikas helps mobilize Government resources while people generate the rest through local materials (like sand, stones, boulders, aggregates etc), their physical labour as well as cash contributions. This support meets the cost of externally sourced materials including cement, steel, door, toilet pan, etc. In case of the overhead water tank, the government contribution through the Swajaldhara drinking water supply programme is to the tune of 70-75%. Again, people bear the remainder of the costs.

The initiation of the programme is subject to the generation of a 'corpus fund' by the village, to which every single household contributes Rs.1, 000 on an average (the poor give less and the better off more, but the poorest widow also gives at least Rs.100). Complete collection of this upfront payment is considered to be an 'acid test' of commitment for the communities where, people collectively confirm that they are willing to be a part of this programme. This corpus fund ensures that 100% coverage is maintained at all times in villages and when new households are added to the village, the interest accruals from the corpus would be used to extend the same subsidy to them so that they may be able to construct their own toilets and bathing rooms. Thus, the responsibility of meeting the cost of external materials (which Gram Vikas today provides in the form of a subsidy) for the future is taken over by the village committee, to provide for new families in the village.

Gram Vikas firmly believes that the poor can and will pay, for their development. We strongly contend the attitude of political patronage and the bureaucratic concessions that normally accompany the provision of any service for the rural poor and the marginalized. However, we also feel that the rural poor must have access to services fulfilling their basic needs as a matter of right, and not due to any form of patronage dispensation. To put the issue in perspective, it is pertinent to remind ourselves that in urban areas, one is witness to enormous subsidies granted to people, in facilities ranging from electricity connections, drainage and sewerage, education etc. For example, urban consumers are charged anything ranging from 3% to 12% of total costs incurred on maintaining the water supply system in cities. Compare this with villages that have implemented their own systems, where people would be paying for the complete maintenance of such facilities after the initial installation.

There are social costs involved in making basic services available to the disadvantaged, which governments and society, at large, must bear. It is towards bearing this social cost that Gram Vikas attracts government and donor funds. The subsidy, that meets the cost of external materials used for construction, has to be raised as seed capital and is accessed from a variety of sources including government schemes, development donor agencies and private financial institutions.

Before construction of the toilets and bathing rooms, young men and women, working as unskilled labourers, are trained in masonry. On completion of the training, they construct the toilets, bathing rooms, overhead water tanks and later on, houses, under the supervision of master masons and technical personnel. These newly trained masons are assured of work for at least one year if they so desire. Some of them go on to become master masons, leading trainings in other project areas, or successfully securing contracts for work in nearby urban centers. These people who, earlier, could not earn even Rs.30 per day in non-agricultural season begin to get Rs.60-80 after the training and between Rs.120-150 after a year or two. Not one of these masons is sitting idle because he/she has no work opportunities/offers.

#### **Sustainability of the water source**

For water supply, Gram Vikas is of the view that an open sanitary well is the best, primarily because an open well can be recharged. We believe that one has a right to

extract water from the earth only to the extent that one can recharge the aquifer. Exploitation of water through deep bore wells from below the impervious level through deep bore wells, which is nearly impossible to recharge through water recharging techniques, should be the last recourse. There are other dangers as well. Quite often, one hears of the presence of water pollutants like arsenic, nitrates and fluorides in drinking water. All these pollutants are present mostly in water drawn from bore wells (tube wells). Sanitary dug wells are tested for water quality at regular intervals and villagers organize themselves to clean these wells whenever required.

To ensure that the dug wells do not run dry, appropriate water recharge and water harvesting mechanisms are undertaken. These follow watershed management best practices based on the 'ridge to valley' approach. Specific activities include pond excavation, gully plugging, continuous contour trenches and water absorption trenches to reduce the velocity of runoff water and further harvest rainwater.

In addition to pumping ground water, Gram Vikas has also been able to bring about some technological innovations to beat the obstacles that certain villages face in remote hilly areas. In the recent past, we have had great success with sourcing water from springs/streams on higher hill slopes. This water, once tapped at a higher altitude, easily fills up an overhead water tank located at a lower altitude using the gravity flow principle. More recently, we have also been successful in some innovative experiments like sourcing water for a village from the bottom of a sanitary dug well located at a much higher altitude, thus, reducing the dependence on perennial springs/streams.

### **Programme sustainability**

The most prominent determinant of the success of the behaviour change process initiated by Gram Vikas is whether 100% people in the village are regularly using the toilets and the bathing rooms and also keeping them clean. Once the toilets and bathing rooms are constructed and water supply systems are established, the village committee lays down several codes of behaviour for every one. Any deviation from these is met with rather heavy fines. The village becomes free from open defecation and any one defecating anywhere near the village within 1 km radius has to pay a fine ranging from Rs.50-500. A dirty toilet attracts a fine of Rs.10-25. Because of these social pressure tactics, people get used to toilets and all the villages have 100% use of toilets and most importantly, the toilets are kept spotlessly clean. In addition to this, every week/fortnight, school children move from house to house, inspecting toilets and bathing rooms. Children clean any dirty toilet spotted, a penalty is to be paid by the household, and the money collected goes towards the school fund.

Another critical indicator of the success of this programme is whether there are sustainable mechanisms in place for people themselves taking care of all costs related to operations and maintenance. In MANTRA villages, once all the toilets and bathing rooms are constructed and the piped water supply is in place, all families are expected to pay a monthly fee (less for the poorer people), as fixed by respective village committees, which is sufficient to cover the salary of the pump operator and the maintenance costs of water supply systems. These monthly collections contribute to a maintenance fund established

in every village. In quite a few villages, 0.25%-0.50% of the gross product at the time of harvest is contributed towards the maintenance fund. Again, this is socially just as the landless do not have to pay. The village pond is used for community pisciculture, once pressures of other uses are lifted off it. Common wastelands are developed and used for community-managed income generating activities. The returns from such activities also go to the maintenance fund. One or two village youth receive training in plumbing and in handling electrical equipment and are able to service the infrastructure, reducing dependence of the village on outside support.

### **Emphasis on personal hygiene**

Gram Vikas staff engage with self help groups of women to impress upon them, the importance of personal hygiene. Small, but instructive messages about using some form of soap (or detergent or ash) to clean the hands after one uses a toilet, bathing regularly and wearing clean clothes are passed on during the regular meetings. Due to the availability of a bathing room, women would find it easier to take care of their personal cleanliness and hygiene. In addition, children are repeatedly guided, in schools, about the importance of hand-washing, keeping their hair clean, keeping nails short and clean etc. Between the mothers and the children, there is often a mutually reinforcing cycle at work, making the need for personal hygiene an ingrained one.

### **Associated Health interventions**

Gram vikas has been able to integrate provision of safe drinking water and sanitation within the larger health programme. The fact that clean water coupled with proper sanitation facilities itself contributes to reduction of nearly 80% of water borne diseases, has a direct bearing on children's and women's health. Unclean water and related diarrhoeal incidence has been the largest killer of children under 5 years of age. Gram Vikas' internal record on health shows that in villages where the programme is in place, diarrhoea incidence has been less than 2% (and that too because of consumption of water outside the village).

Gram Vikas also trains Gaon Kalyan Samitis, Mother's associations and Anganwadi workers on growth monitoring of children, care of ante-natal mothers, immunization, malaria control etc. ASHA and Traditional birth attendants are trained on safe delivery practices and post natal care. Such intensive trainings have been useful in the remote tribal pockets where illiteracy, lack of awareness and traditional mores and practices have a bearing on child and maternal health. In Kalahandi and Gajapati districts there has been a significant reduction in infant mortality rate (earlier in the period of 1980s it was 250-300 per 1000 live birth which came down to 35-40 per 1000 live birth).

### **Strengthening local governance structures**

The programme involves each and every family in the village without exception. 100% consensus ensures that even the poorest and most marginalized benefits from the same level of service, and has an equal say in deciding how the project should be implemented. This minimizes the chances of the systems established falling into disrepair or disuse. In villages where the programme is established, the village institutions represent interests of

all sections, and attempts are made to develop necessary capacities so that they are able to manage conflicts. The village committees have proportionate representation of all caste and class groups in the community. Gram Vikas stays three to five years to build capacities of women and the excluded, so that they can participate on an equal level.. For the first time the poorest woman, the widow, or the *dalit* (untouchable) feels that s/he has a voice, which will be heard and which matters.

The initial effort to get the participation of women by bringing them into the general bodies or executive committees of these villages did not have the desired results. So separate general bodies, exclusively of women, where an adult woman from every household is a member, was attempted. Here, women opened up and began to participate in the discussions pertaining to various issues of general concern. People elect an equal number of women and men to the executive committees. This was a learning process for Gram Vikas and a lot of efforts went into the accompaniment of women general body members and executive committee members, before they could sit as equals with men at the same meetings and to express their opinions without any fear or inhibition.

Over time, both men and women begin to accept the enriching role that women can successfully play outside of their families. This is reflected in the respect given to them and in the loosening up of traditional roles, codes of conduct and, gradually, in power relations. Women have taken over the responsibilities of maintenance and monitoring of water supply and toilets, in resolving conflicts, organising mass protests, enforcing programme codes in the village and in advocacy beyond the village. They are also confident and firm in their interaction with government officials, banks and other outsiders.

Each village forms a village society with the elected representatives to the Executive Committee as members, which is registered as a legal body. The legally recognised status enables villages to leverage development resources in a more effective manner. It takes a lot of time and energy to build the capacities of erstwhile un-represented, excluded sections of a village community, and for them to demand accountability from other committee members and also for themselves, to be accountable when in positions of responsibility. During the 3-5 years that Gram Vikas remains in these villages, communities learn how to deal with conflicts and act as pressure groups against vested interests within their village and outside. Villagers learn the ropes of maintaining public accounts, organizing the general body meetings and elections.

***Relationship with Panchayats***<sup>3</sup>: Once people begin to experience managing their village water supply and sanitation systems, they begin to take interest in the *Ward Sabha (Palli Sabha)*<sup>4</sup>. Most Executive Committees have ward members or other *Panchayat* representatives. The general body, which is the *Palli Sabha*, is strengthened and

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<sup>3</sup> The 73<sup>rd</sup> amendment of the Indian constitution instructs the state on significant devolution of powers to Panchayats (a three tier structure of governance - at the village, block and district levels). In Odisha, a Panchayat typically comprises five or more habitations.

<sup>4</sup> Palli Sabha is the lowest tier of the Panchayats – it is approximately the equivalent of a village that Gram Vikas works with.

supported to formulate micro-plans for presentation in the *Gram Sabha*<sup>5</sup>. As the programme is being implemented in a cluster approach, there would, usually, be quite a few habitations of a *Panchayat* implementing the programme. When united communities come together, they form a ‘critical mass’ that can demand a change in their respective *Panchayats*. These villages together mount great pressure for the proper functioning of the *Gram Sabha* and holds to account the elected representatives of the *Panchayat*. They are also able to access funds for the programme and also for any further development activities that need to be carried out in the interest of their village. Establishing linkages with the Panchayats is a step towards evolving strong people-centric local governments.

### **Replication**

The first 6 years of the programme (1992-1998) were characterized by the ‘push’ factor. From 1999, the ‘pull’ factor has been gradually emerging. The demonstration effect is clear as neighbouring villages are tempted to undertake the programme. Old villages often play a key role in motivating new villages. People perceive the enhanced social capital in villages, which are a part of the programme. The visible reduction in the incidence of water-borne diseases, reduction in the drudgery of women and the comfort of privacy they now enjoy are also powerful motivating factors for adjoining villages. An interesting development has been that girls from MANTRA villages are now reluctant, and often refuse to be married in villages where there are no toilets, bathing room and piped water.

### **Impact**

Studies have shown an 85% reduction in the incidence of water-borne diseases in these villages. In all these villages, over 90% eligible children are in school and regular immunization camps are conducted, covering all eligible children. The programme has had a positive impact on the quality of life of all participating villages, through reduction of water-borne diseases and hence, a marked improvement in the health situation. Due to the importance given to personal and environmental hygiene, people have cleaner habits and are more aware of their responsibility in keeping not only themselves, but also their village clean.

As on 31<sup>st</sup> March 2014, Gram Vikas has covered 63,000 households in 1095 villages across 24 districts of Odisha, reaching a population of over 350,561. In these villages where water supply has been established, it is heartening to see that communities have ensured that the systems are functional. Communities have put together corpus funds worth over Rs. 63 million. It is a validation of the principle behind the corpus fund that 254 ‘new’ families have constructed toilets and bathing rooms, without any assistance from Gram Vikas. There have been occasional technical failures, but people have organised themselves every time, to successfully take care of the problems that arose. In seven villages until now, however, the social processes have not been realised in full measure. This is to say that in areas of women’s empowerment, participation in Panchayats or even in some cases, of inter-caste relations, the achievements till date leaves a lot to be desired. The communities in these villages have taken care of the functioning of the systems, but are resistant to any significant social change in their

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<sup>5</sup> Gram Sabha is the general body of the Panchayat, where five or more villages are represented.



villages. In these cases, the most common reason has been that the men felt threatened by the possibility of active participation by women. In these villages, the social change will possibly take some more time to materialise.

It is planned that 100,000 families (~ 500,000 people) bound in clusters will be covered by this intervention by 2017, spearheaded by community-based organisations, likeminded NGOs and Gram Vikas' direct outreach programmes. There are some key points that have guided Gram Vikas in this journey. Gram Vikas has always believed that any malady in rural areas can be cured, if the community is treated first. In treating the community, total inclusion should be a non-negotiable principle. In spite of all the perceived difficulties in achieving 100% inclusion, it has remained the basic tenet of Gram Vikas' MANTRA. That this could be achieved with 361 communities is a vindication of this faith.

Secondly, treating rural citizens as second-class citizens and being callous towards their needs of a life of dignity and access to basic facilities is an injustice that has been perpetrated for far too long. MANTRA is a statement in dignity. Villages where MANTRA has worked have shown how the feeling of being inferior to none fires the imagination of communities and rouses their confidence to tackle other problems in their villages.

Finally, MANTRA is also about sustainable systems. Unless institutional mechanisms are established and social capital is created, no programme can have a lasting impact.

### **Recognition**

This initiative from Gram Vikas has been recognised through various awards including –

- Most Innovative Development Project Award from the Global Development Network of the World Bank for the Rural Health and Environment Programme (2001)
- World Habitat Award for the Rural Health and Environment Programme awarded by the Building and Social Housing Foundation, UK (2003)
- Laureate in the Economic Development category of the Tech Museum Awards, awarded by the Tech Museum of Innovation, San Jose, California (2003)
- CTx GreEn - Gram Vikas project on Carbon neutral bio diesel production in tribal areas of Odisha selected at the World Bank Development Marketplace (2003)
- Kyoto World Water Grand Prize, awarded by the Kyoto Municipality and Soroptimist International at the World Water Forum, Mexico, for MANTRA (2006)
- Ashoka Changemakers Innovation Award – “How to Improve Health for All” for MANTRA (2006)
- Ashoka Changemakers Innovation Award – “How to Provide Affordable Housing” for MANTRA (2006)
- Skoll Award for Social Entrepreneurship, awarded by the Skoll Foundation, USA (2007)

- “Best Practices in the year 2006” by the Dubai Municipality, Dubai – United Arab Emirates & the United Nations Human Settlements Programme – for MANTRA
- India NGO Award 2006 – “Best NGO of the year” – awarded by Nand and Jeet Khemka Foundation and Resource Alliance, UK
- Water Digest Award, 2010 for best NGO in Rural Water Supply.
- STARS Award for WASH, 2012
- Top 100 NGO in the World 2014

The contributions of Gram Vikas’ Executive Director, Sri Joe Madiath have been recognised through the following awards:

- Outstanding Social Entrepreneur 2001, 2002 and 2003 by the Schwab Foundation for Social Entrepreneurship, Geneva
- Social Lifetime Achievement award of the Red and White Bravery Awards from Godfrey Philips (2005)