

# Water Is Power

WHEN IS A WATER AND SANITATION PROGRAM MORE THAN JUST A WATER AND SANITATION PROGRAM? A PROJECT UNDERTAKEN BY GRAM VIKAS SHOWS HOW EFFORTS TO SOLVE A PARTICULAR SOCIAL PROBLEM CAN HAVE A FAR-REACHING IMPACT ON AN ENTIRE SOCIAL SYSTEM. INDEED, THEY CAN OPEN NEW WAYS TO REDUCE DEEPLY ENTRENCHED FORMS OF INEQUALITY.

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In India, the installation of toilets comes with no guarantee that people will use them. Again and again, government agencies and non-profit organizations have brought clean sanitation facilities to rural villages, only to find that villagers continue the endemic practice of open defecation. Researchers have established that eliminating open defecation is not just a logistical or financial problem, but also (indeed, mainly) a cultural and political problem. Because of social norms that have deep roots in religious practice, certain groups of people—particularly women, members of lower castes, and members of indigenous tribes—come to believe that they cannot or should not use toilets or other forms of contained sanitation.

Since 1991, the Indian NGO Gram Vikas has conducted a program that embeds the provision of water and sanitation facilities within a broader effort to transform the patterns of social interaction that make open defecation such an intractable problem. Originally known as the Rural Health and Environment Program, or RHEP, this effort is now part of an initiative called MANTRA—the Movement and Network for the Transformation of Rural Areas. The purpose of MANTRA is to provide every household in a given village with piped drinking water and with its own toilet and bathing facilities. As of January 2015, Gram Vikas had implemented the program in 1,140 villages across 28 districts in the state of Odisha. (The organization has also brought a variation of this program to several other Indian states and to certain African countries.)

In Odisha, as elsewhere in India, the practice of open defecation and the use of polluted water sources cause waterborne diseases to spread widely. Odisha (formally called Orissa) is one of India's poorest states: Nearly half (47 percent) of its population lives below the official poverty line. It's also a state where patterns of social exclusion are prevalent. Gram

Vikas, founded in 1979, focused in its early years on tackling challenges related to education, housing, and other areas of concern to people in the villages of rural Odisha. Over time, its leaders turned their attention to health issues, and they identified the installation of water and sanitation facilities as a goal that would appeal to villagers in all social categories.

Through MANTRA, Gram Vikas has found a way to confront the problem of sanitation by confronting the problem of inequality, and in doing so it has achieved discernible improvements in health outcomes. A study of 100 villages that have implemented this program shows that the availability of clean water and adequate sanitation reduces the incidence of waterborne diseases by up to 50 percent.<sup>1</sup>

MANTRA has four distinguishing features that contribute to its success. First, the program has a 100 percent inclusion rule that requires villagers to work together across religious, social, and economic divisions to construct water and sanitation facilities. The program begins only after each household in a village has agreed to this rule.

Second, a multilayered governance structure formalizes equal representation for all social groups. This structure includes a Village Executive Committee that takes responsibility for implementing the program and for maintaining and monitoring the use of newly built water and sanitation infrastructure.

Third, the Village Executive Committee administers a “corpus fund,” which ensures that financial resources will be available to build water and sanitation infrastructure for families that enter the village after completion of the initial program. Each household must contribute to the fund according to its ability to pay.

Fourth, the construction of water and sanitation infrastructure is a collective effort. Each household must contribute labor and material resources to the program, and Gram Vikas supplements household contributions by providing material support and technical know-how.

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Underlying all of these features is a model of social change whose applicability extends well beyond this one program. The manifest goal of MANTRA is to bring water and sanitation to people in rural villages. Yet the leaders and staff members of Gram Vikas also have a deeper goal in mind: They seek nothing less than to transform patterns of inequality within those villages. MANTRA, in their words, is an “entry-point program.” It enables the organization to reach every household in a village—regardless of its place in the local social hierarchy—by providing direct benefits in the form of improved health. Then, by reaching such households in this way, Gram Vikas is able to pursue change at a more systemic level.

The two of us spent a decade following Gram Vikas and studying the effects that MANTRA has had on life in villages where Gram Vikas has implemented it.<sup>2</sup> In our research, we treated the program as a window through which we could investigate the kinds of processes that can alter patterns of inequality. Overall, we found, MANTRA has had a remarkable impact on such patterns. Along with giving all members of a village access to a much-needed service, the program has the indirect effect of empowering villagers who belong to traditionally excluded social groups. In working to understand this transformative effect, we came to focus on a process known as “scaffolding.” That process can enable an organization not only to address discrete social problems but also to alter complex social systems.

### THE STUDY OF INEQUALITY

In studying Gram Vikas, we sought to analyze how purposive organizational activity can tackle inequality. This work builds on a stream of research that addresses the nature and persistence of inequality in small-scale societies. Stability in such communities derives largely from local norms and rules—from shared perceptions of what is proper and improper. Those conditions determine who is eligible to participate in political decision making, in market-based activities, and even in recreational pursuits.

Grand designs to create more-equal societies tend to focus on reducing inequality among individuals. But in small-scale societies—in the villages of rural India, for example—inequality among social groups is arguably a more pressing concern. Rural India, in fact, provides a textbook example of an unequal society. The most striking feature of inequality in that country is its visibility: The social categories of caste, class, and gender mark lines of inclusion and exclusion that are evident in how people live and in how they dress, behave, and interact with others.

The caste system, based on kinship and religion, defines the patterns of social interaction that take place within and between groups. People in that system acquire their caste at birth, and their religion fosters the belief that caste is changeable only through reincarnation. Castes exist in a hierarchical order, with Brahmins at the top and members of Scheduled Castes (also known as “untouchables” or Dalits) at the bottom. Together with Scheduled Tribes, Scheduled Castes are among the poorest groups in the country.

Class designations reflect the ownership of property, including land and the means of production. Caste and class are similar in some aspects, but they differ in others. Caste mobility is never downward, for instance, whereas class mobility may be downward. Gender, meanwhile, continues to be an important category that prescribes the exclusion of women from many aspects of social, economic, and political life.

The Indian constitution prohibits discrimination on the basis of these social categories. Yet, particularly in rural areas, those categories continue to shape local realities. There is little mobility between social groups, and the boundaries that separate one caste or class from another can seem impossible to cross. The deeply nested nature of inequality in India poses substantial challenges for purposive organizational activity. Such activity often suffers from a lack of legitimacy among both excluding and excluded groups, because people in all social groups perceive existing patterns of inequality as “normal.” Yet our study of MANTRA suggests that it is possible to transform deep patterns of inequality by means of a single development program.

### THE IMPACT OF MANTRA

We found that in villages where Gram Vikas has worked with residents to implement the MANTRA program, the provision of economic, political, and social assets no longer depends exclusively on membership in a social group. Although the categories of caste, class, and gender are still in place, they have become less salient in determining patterns of interaction between social groups.

**Access to economic assets** | Before the program, higher-caste groups and other local elites largely controlled access to water and sanitation infrastructure. A low-caste woman in one village describes how higher castes restricted access to water sources: “We are Dalits. That’s why [members of higher castes] denied us water. If we went to get water, there would be a fight. They would tell us we are untouchable.” Lack of clean water and safe sanitation was a major cause of illness, and families had to take out loans to pay for treatment. Such borrowing had the effect of exacerbating economic inequality.

After the program, every household in the village—not just members of privileged groups—gained access to improved water and sanitation services. According to one study, moreover, implementation of MANTRA has resulted in a significant drop in the incidence of illness-related debt problems.<sup>3</sup>

Before the program, it was common for members of Scheduled Castes and Scheduled Tribes to mortgage pieces of land and other property to local elites in order to pay for medicine, funerals, or wedding dowries. Another common social practice—inherited from one generation to the next and perpetuating relations of dependence—was bonded labor. Women, for their part, had little or no ability to engage in economic life outside their homes.

After the program, forms of dependency such as mortgaging and bonded labor diminished in many villages. Through various



forms of enterprise, women started to generate income for their households. One woman attributes her improved financial position to the availability of running water: “We can finish our chores quickly and have more time to earn extra income.”

*Before* the program, a minority of boys from Scheduled Castes attended school, and very few girls from that social group were literate.

*After* the program, most children gained access to education, regardless of their caste or gender. Increased education in turn gave members of lower castes both a measure of independence and skills that allowed them to take advantage of economic opportunities.

**Distribution of power** | *Before* the program, positions of power were available only to men who belonged to a certain caste or class. A senior staff member of Gram Vikas explains how local leaders came into office: “By birth, such fellows became the leaders. And once that fellow dies, his son used to become the leader.” Despite government programs and international development schemes that aimed to bring women and members of lower castes into public office, achieving that goal proved to be extremely difficult.

*After* the program, the ability to take part in decision making was no longer solely a function of kinship or of gender. In a 2002 Gram Vikas report, one woman described a shift in the interaction between genders: “We never thought we could sit on the same mat as the men. But things have changed now. We no longer draw the veil over our faces, and we can talk with men as equals.”

**Attribution of status** | *Before* the program, those in elite groups and those in disadvantaged groups both took for granted the stigma that attached to members of lower castes. People devoted a great deal of effort to safeguarding boundaries between social groups in order to protect the “purity” of the higher castes and to confine “pollution” to members of Scheduled Castes or Scheduled Tribes. Both groups perceived this arrangement as a god-given fate. A member of the Gram Vikas founding team evokes this attitude by speaking in the voice of someone from a Scheduled Caste: “What can I do? I am born Dalit, so in this birth, I will be excluded. In this birth, this will be my fate. Maybe next birth, I’ll be different.”

*After* the program, patterns of status attribution shifted. One man, asked if anyone from a Scheduled Caste or a Scheduled Tribe was working with him on a construction project, replies, “I don’t know. We don’t discuss these matters anymore.” Similarly, during our fieldwork, we observed members of different castes sharing meals, working together, talking with each other at village meetings.

## THE THEORY OF SCAFFOLDING

Most efforts to reduce inequality fall into one of two categories. In a program that follows a *social engineering* logic, leaders seek to achieve a predefined set of outcomes. In a program that follows a *participatory* logic, by contrast, leaders empower beneficiaries to define and pursue their own goals.

The logic of social engineering leads to programs that rely on expert knowledge to define goals, to design solutions, and to assess impact. Critics of such programs note that they typically focus on

a single dimension of inequality and pay little or no attention to the deep social patterns that reinforce unequal conditions.

The logic of participation leads to programs that call on beneficiaries to formulate program goals and to design actual programs. Evidence of whether these programs genuinely alter patterns of exclusion is mixed at best. In fact, research by development anthropologists has shown that local elites typically end up dominating such programs. In a review of water projects, for instance, a team of researchers found that community leaders had largely appropriated the benefits that accrued from those projects.<sup>4</sup>

MANTRA combines elements of a social engineering program (it delivers tangible assets in the form of water and sanitation facilities) with elements of a participatory program (it empowers people in rural villages to solve their own problems). Yet MANTRA differs from both of those program types. We identified *scaffolding* as the element that sets this program apart from others of its kind.

For the purposes of this article, we define “scaffolding” as a process that enables and organizes the institutionalization of a new social order through the transformation of social structures rather than their replacement. Significantly, this process relies on the deployment of temporary support structures—on the creation of scaffolding layers that participants can later remove. This use of the scaffolding metaphor for social research is not new. Cognitive scientists have applied this idea to the study of transformation processes that occur within individuals, for example, and evolutionary biologists have applied it to the study of complex adaptive systems.<sup>5</sup>

We identified three mechanisms that make up the scaffolding process as it applies to the transformation of social systems.

*Mobilizing* involves creating, unlocking, and repurposing resources that are available either to an organization or to program beneficiaries. Through this mechanism, people tap into institutional resources (social rules, norms, and beliefs), social-organizational resources (formal and informal governance structures), and economic resources (such as labor, property, and other assets).

*Stabilizing* involves developing new patterns of interaction that reflect an alternative social order. This mechanism also includes formal and informal enforcement practices that emerge to protect a new, shared goal. Stabilizing is critically important to any transformation project that seeks not to replace a social order, but rather to revise it from within.

And *concealing* involves hiding program objectives that some groups will neither anticipate nor desire. Concealing requires an organization to highlight an uncontested manifest goal rather than the covert goal of revising a given social order. This mechanism helps generate consensus among social groups, enables collective action, and blocks efforts by elite groups to coopt or hinder a program.

## THE PHASES OF MANTRA

In our research on Gram Vikas, we observed how the MANTRA program enables fundamentally new patterns of interaction to emerge within villages marked by high levels of social division and





inequality. Broadly speaking, that process unfolds in three phases. The mechanisms of scaffolding—mobilization and stabilization, in particular—come into play throughout this process.

**Creating new patterns** | In the first phase, Gram Vikas takes steps to gain elite support for the program and to achieve consensus among all villagers. The organization insists that all social groups in a village actively participate in MANTRA. Even if just one household declines to commit, Gram Vikas will not launch the program. “We do not take a ‘no’ from anyone. We do not accept positions like ‘We do not want them included’ or ‘We do not want to be included,’” says a senior staff member.

When Gram Vikas approaches a village about joining MANTRA, it first establishes contact with village leaders. Initially, members of higher-caste groups resist the idea of involving Scheduled Castes and Scheduled Tribes in the program. In their view, using the same water source as lower-caste people would place their purity—and hence their superior status—at risk. A senior staff member at Gram Vikas, speaking in the voice of a higher-caste woman, explains this way of thinking: “We [will] get water by the turn of the tap, and the Scheduled Caste women also by the turn of the tap will get water. That means there is no difference between [higher- and lower-caste groups], and we are supposed to be higher, and they’re supposed to be lower.”

According to Madiath, Gram Vikas staff members present a blunt appeal to village leaders: “You want to drink Dalit shit? Now you are drinking everybody’s shit, so by not [including lower-caste people in the program], you are only drinking their waste.” Staff members go on to argue that involving 100 percent of village households will help to maintain higher-caste purity: “Even if 99 percent is there, but one family shits all over the place, that family can pollute the water [and] everything of the village.” To reinforce that message, staff members sometimes organize tours in which they visit open defecation spots alongside local leaders and demonstrate how feces flow into the water that all villagers use for drinking and washing.

Over time, this argument sways village leaders, and they agree to include all social groups in MANTRA. They then use their power to influence other villagers to join the program. Once a village-wide consensus takes shape, Gram Vikas requires the village to enter a formal contract that obligates each household to follow a set of rules requiring that the funding and construction of water and sanitation infrastructure must be a collective effort. This contract serves as a stabilizing force for the program.

In sum, Gram Vikas co-opts institutional resources (including local power structures, along with norms and beliefs about purity and pollution) to turn MANTRA into a way to alter patterns of interaction. Members of higher-caste groups come to view the 100 percent participation rule as a necessary means of protecting their own purity, and members of lower-caste groups join the program partly in response to pressure from local elites. Established hierarchies, in other words, end up working in favor of program implementation—and in favor of revising the local social order.

**Formalizing new patterns** | In the second phase, Gram Vikas works with people in a village to establish governance structures that meet the terms of the MANTRA contract. The need to include all social groups in those structures poses challenges for the program. In most rural villages, for example, the exclusion of women from public meetings is a deeply rooted norm. A member of the Gram Vikas founding team quotes one woman as saying: “All the centuries, our men decided everything, so why should we decide anything?” In our fieldwork, we saw that even when women do join a meeting, they often adhere to traditional forms of interaction: Men and women, for instance, typically will not sit together in such settings.

To facilitate a long-term change in gender relations, Gram Vikas follows a strategy that starts with adhering to local norms and hierarchies. First, staff members approach women within the confines of their homes and invite them to discuss gender-appropriate topics, such as maternal and child health. Then, as women gain confidence in that sphere, Gram Vikas encourages them to meet publicly in Self-Help Groups. These groups offer a space where women can discuss contested issues, such as alcoholism and domestic violence. Next, Gram Vikas works with women to create a Village Body, a committee that gives them an official platform to discuss village-wide issues. This body includes the female heads of all households in a village, regardless of their caste or class.

In parallel with the women’s Village Body, Gram Vikas forms a Village Body that includes the male heads of all households. This committee focuses on implementing the water and sanitation project. Gram Vikas actively moderates the meetings of this body, nudging members of lower castes to voice their concerns and prompting higher-caste men to listen to those concerns. Men on the committee, inspired by the prospect of obtaining access to water and sanitation facilities, willingly comply with this requirement.

Once the two gender-segregated committees have developed routines for meeting and decision making, Gram Vikas requires these groups to merge into a single committee called the Village General Body. That body then elects a Village Executive Committee, a group that includes four women and four men. This committee (which Gram Vikas registers as a legal entity under the Indian Societies Registration Act) assumes decision-making power over all matters related to water and sanitation, and it takes responsibility for enforcing MANTRA program rules. The Village Executive Committee also interacts with government agencies and other outside organizations.

Together, these structures allow villagers to build practices that foster interaction between members of different castes, classes, and genders. Patterns of behavior start to change, and ways of navigating inter-group boundaries begin to change as well. Before the program, for instance, each time a higher-caste woman interacted with a Scheduled Caste member, she would need to undergo a purification ritual that involved bathing. After program implementation, making a simple apparel choice was enough to prevent pollution from contact with people from lower castes.



To enforce program rules and to help stabilize the emerging social order, villagers rely on both formal and informal mechanisms. In many cases, the Village Executive Committee establishes sanctions that lie outside the formal program contract, such as public shaming or denial of access to water. Women, in fact, assume a central role in policing the implementation of MANTRA. In one village that we visited, the tendency of some men to spend money on alcohol had exhausted the resources of their families and was hindering efforts to raise funds for the program. The women in this village decided to take action: They expelled a liquor vendor from the village and called a meeting to declare a prohibition on the sale and consumption of alcohol.

**Building on new patterns** | In the third phase, Gram Vikas collaborates with villagers to construct new water and sanitation infrastructure. As new patterns of interaction between social groups begin to take hold, the organization initiates the mobilization of resources to build a system of piped water and in-home sanitation facilities.

The Village Executive Committee organizes a corpus fund that every household must contribute to. (In addition, Gram Vikas helps the Village Executive Committee to access other resources, such as subsidies that are available through state-level development programs.) Members of higher-caste groups are particularly eager to gain access to the new infrastructure in order to avoid pollution from lower-caste people. To prevent delays, therefore, elite families frequently offer to cover the corpus fund contributions of poor families.

The mobilization of resources is a collaborative effort between village households and Gram Vikas. Households raise the corpus fund; Gram Vikas then provides top-up funding. Gram Vikas delivers masonry training; households provide labor to build brickwork for the new infrastructure. And so on. In each village, the MANTRA program officially ends with the completion of water and sanitation infrastructure that serves all households. It culminates in the construction of a water tank. The tank is visible from all parts of the village, and it symbolizes the villagers' collective effort.

Various mechanisms enable the new social order to persist after Gram Vikas winds down its direct engagement with a village. The interest earned from the corpus fund replaces the subsidies provided by Gram Vikas and ensures the long-term sustainability of the water and sanitation infrastructure. Governance structures created under MANTRA remain in place, and as a result villages continue to follow the 100 percent inclusion rule even after they achieve the goal of access to water and sanitation. Newly formed households and families that move to a village automatically join the local Village General Body. Although new households must build their own water and sanitation infrastructure, they can draw on the corpus fund to help finance that effort.

MANTRA also leaves villagers with an increased capacity for pursuing economic opportunity. Through the program, they develop skills and resources that empower them to engage in entrepreneurship. In many cases, the Village Executive Committee

is able to access government funding to build local infrastructure projects, ranging from schools to fishponds.

### THE (HIDDEN) BENEFITS OF SCAFFOLDING

In our work on scaffolding, we draw inspiration from earlier studies that focus on revealing the hidden forces within a social system.<sup>6</sup> The scholars who undertook those studies emphasized the adverse effects that such forces often bring to otherwise worthy efforts. This tendency is common in social and economic development programs that target specific dimensions of inequality. Such programs seek to decrease the number of households below the poverty line by fostering entrepreneurship, or increase the number of children who attend school by building new schools. In many cases, these efforts do enable marginalized groups to access new opportunities. Too often, however, the impact is temporary or reversible. Members of elite groups, for instance, might simply refuse to respect new rules or to support newly created institutions. Or, as research on microfinance initiatives has shown, husbands might appropriate the assets that women gain from taking part in a program.<sup>7</sup>

The process of scaffolding reverses that dynamic: Through a well-designed program, an organization can marshal hidden social forces to achieve a positive effect. Scaffolding allows the organizations to pursue a manifest goal (such as access to clean water) and concurrently to pursue a concealed goal (such as the transformation of entrenched patterns of inequality). In the absence of scaffolding, members of certain groups would resist and potentially compromise the emergence of an alternative social order. In the case of MANTRA, Gram Vikas is able to obscure the fact that its goals involve not just new water and sanitation infrastructure, but also new structures of power.

Scaffolding, in short, has the potential to transform the conditions of social, political, and economic life in an enduring way. Unlike efforts that directly challenge or replace an existing social order, scaffolding supports a gradual and largely covert process of shifting the patterns of interaction that undergird that social order.

### NOTES

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