Section Five: Sociocultural Change and Adaptation

Dug-well Revival: Tradition, Knowledge and Equity in Drinking Water in Bihar, India

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Project Background

In the chronically flooded areas of North Bihar, India, a network of development organizations working on drinking water found themselves in a conundrum. Dug-well water, which is contaminated bacteriologically, seemed far easier to clean than hand-pump water, which is polluted with heavy metals. Yet the history of the dug-well is characterized by caste-based discrimination and, as a result, community members seemed to have definitively turned for their drinking water to the handpump, perceived as clean and modern.

The dug-well is a brick-lined hole in the ground that contains shallow groundwater. It is a communal technology, owned by several families together, unlike the (generally) single-owned hand-pump. The reason for the dug-well to be owned collectively is not only in the functional convenience of sharing the cost of the initial investment, but also in the social and cultural practice of sharing the labor required to dig and maintain it. A dug-well has to be cleaned of debris occasionally, and several men perform the maintenance together. Digging and cleaning require shared labor and shared knowledge, the latter transmitted from one generation to the next (but in the case described here, it was only known by the elder generation).

Traditionally, dug-wells were owned collectively by members of a single caste, and the sharing of its water with those from other castes was restricted by rules of commensality. This practice translated not only into the unavailability of a resource so indispensable to life, but also into a climate of deep humiliation and violent discrimination. The well-known short story by Munshi Premchand, “Thakur ka kuan,” effortlessly narrates the deadly violence imposed through dug-wells on lower castes in many parts of India.

The hand-pump, on the other hand, is a hand-operated system of suction and pipes inserted in the ground. Its radically different materiality determines distinctive ownership and usage patterns. Easily broken by overuse, it is preferably owned by a single family. It provides access to an invisible resource and is generally contaminated by invisible substances (iron leaves traces and smells, but nitrates, fluoride, and arsenic are odorless and traceless). Cleaning the hand-pump system is difficult, and the related procedures are generally unknown to locals. The lack of visibility of the resource’s quantity also translates into unfeasible collective adjustments of demand and therefore into problematic accountability. Knowledge about the set-up, function, and repair of the hand-pump is owned only by individuals with technical experience, generally belonging to commercial entities. Hence, hand-pump-related knowledge is a scarce resource that requires external transactions in rural settings.

In most of North Bihar, residents have definitively turned to the hand-pump in recent years, which is perceived as clean and modern. Introduced in the late 1970s by the government under UNICEF's advice, hand-pumps remained underutilized until the 1990s, when, for reasons not clearly understood, the technology became increasingly accepted. At the same time, the dug-well stopped being used.

However, the hand-pump was ridden with power issues. Politicians assign hand-pumps through government funds to strengthen patronage relationships and political networks in their constituency. They also reproduce the wrong assumption of a causal relation between water quality and the depth at which it is sourced ("the deeper the better"). Unproven scientifically, this has in fact negative ecological consequences in terms of water quality because deep drilling is probably the cause for the release of arsenic into drinking water and cross-aquifer contamination. Also, this assumption unnecessarily benefits the commercial hand-pump installer at the expense of the family who purchases the dug-well. As a consequence, the hand-pump, owned by a single family, has become a status symbol in alliances and negotiations. The hand-pump fosters values of individuality and independence from the larger community. While, given the history of caste discrimination related to the dug-well, this may be understandable, this individuality hides the fact that water is a common property resource in North Bihar as anywhere else. This is problematic not only in water-scarce areas, but also in areas with polluted groundwater, particularly alluvial areas of large and interconnected aquifers such as North Bihar.

Enter Megh Pyne Abhiyan (MPA), literally "the clouds' water campaign," a network of five small NGOs based in the flood-affected areas of North Bihar, that decided to work together on the issue of drinking water. In 2006, Eklavya Prasad, a social worker with experience in other parts of India where water is scarce, visited his ancestral land in Bihar and realized that the proverbial poverty of North Bihar and its disastrous floods were crying for action. Advised by Dinesh Kumar Mishra, the main expert of rivers and floods in Bihar, Eklavya formed MPA as an informal network of five NGOs: Gramyasheel, Kosi Seva Sadan, Samta, Ghogardiha Prakhand Swarajya Vikas Sangh and Savera (later renamed Water Action). MPA committed to work on the issue of floods and drinking water. These five organizations, all of Gandhian inspiration, had been working separately on issues of development and poverty in their respective areas (the districts of Supaul, Saharsa, Khagaria, Madhubani, and West Champaran), but their leaders shared a common personal connection with the independence leader and theorist Jayaprakash Narayan and his total revolution against Indira Gandhi in the mid-1970s. In accordance with such a history, MPA was organized in the form of a campaign, involving people in conversation over water instead of following the typical development transfer of funds and technology.

Starting in early 2007, I became involved with MPA in the capacity of state coordinator, in charge of coordinating programs and teams of development workers in Bihar. A couple of months into this job, the many rivers that carry water from the Himalaya range to the Ganges River erupted from their banks, and flood waters covered most of North Bihar. Despite being a disaster that affected more than 20 million people, the floods of 2007 went mostly underreported because Bihar, just resurfacing from political turmoil, was still considered too dangerous for international and even national development organizations. Media personnel refused to visit North Bihar, known as much for its many kidnappings and disastrous law-and-order situation as for its floods.

It is fair to say the flood experiences were interesting, as I faced the inundations mostly alone and with underdeveloped Bihari language skills. I was caught in flood water several times: stuck in the heavy rains that inundated all the roads and terrain around my forest shack in Saharsa; caught off guard by a surge of flood water that obliterated the previously safe-looking road I was travelling on in Motihari; stranded

in a flooded town in West Champaran; caught in a quick and dirty flash-flood between Madhubani and Dharbanga; and trapped by a suddenly engorged river I was about to cross on foot in the north of Supaul. Walking through flooded areas to visit affected villages and self-made relief camps, sometimes among floating dead bodies, was not psychologically easy, but the way I handled the network and its involvement in relief operations during the disaster eventually proved my dedication to the MPA teams, which had been reluctant to accept me. Even the heads of these five local organizations, all seasoned political and social leaders, who at first did not welcome a young, foreign female to coordinate the campaign, eventually started to collaborate.

Being accepted by fieldworkers and team leaders was essential. Not only was I an outsider with fieldwork experience and language skills more appropriate to other parts of India than Bihar, but I also had a difficult task to accomplish. In practice, my role was that of an applied anthropologist, in charge of research and program development and implementation. Theoretically, I was putting into practice the learnings from my M.A. in the social anthropology of development. My plan was to rethink the typical cycle of social development intervention, which I had experienced elsewhere as highly impractical and to conduct ethnographic research with the same teams with whom I would then develop and implement interventions based on the research. Toward this goal, I formed five teams of local residents for a total of 52 field workers, men and women in equal parts.

Project Description

It became clear that MPA was facing a conundrum. The dug-well is far easier to clean than the hand-pump, and hence, in this specific context of polluted groundwater, is a more reliable source of clean water to drink. It is also more conducive to the collective management of water. As the connection between water quality and health problems became apparent, many rural citizens started questioning the historical adoption of the hand-pump over the dug-well with its underlying political and commercial calculus. Yet, the dug-well did not seem to have a chance, at least among the younger generations, and MPA had no intention to “revive” castism through the promotion of the dug-well.

Still, ethnographic research has found that the dug-well continues to yield positive meanings of self-help and community building. Dug-wells are a tradition from a religious perspective, as several Hindu temples have used dug-wells to secure water for rituals. Yet the dug-well has emerged ethnographically as having residual relevance regardless of religious practices. In some villages, its utility was recognized because a dug-well came in handy in controlling a fire, or a hand-pump broke down in the attempt to do the same.

As an example of ongoing relevance and meaning, a village man in his 50s was proudly maintaining the dug-well built by his great-great-grandfather, and accessing water from it, although not for drinking purposes. He claimed not to know about how to keep the water of drinkable quality, even though his father, still alive, seemed confident about it. Among the reasons to keep the dug-well clean, the family mentioned that their rice was white even after cooking (while others’ rice turned yellow), their lentils tasted better than anyone else’s, their clothes remained white after washing them, and their cattle preferred to drink water sourced from the dug-well rather than that from the hand-pump. All the advantages of the dug-well over the hand-pump mentioned by this family are compatible with the effects of utilizing iron-free water instead of iron-contaminated water. These remarks also highlight a discourse of purity (purity of food and clothes, both of high symbolic value) that values dug-well water over hand-pump water.

As a result of this and related ethnographic research, MPA decided to explore the possibility of reviving dug-wells. The ways in which this was to be pursued were discussed intensely. In agreement with MPA's identity as a campaign, we chose to eschew the typical NGO's modality as a solution-provider, and instead to engage people in conversations about dug-wells and simply encourage the transmission of local knowledge on how to clean them. That involved conducting water testing and facilitating conversations about unutilized dug-wells in areas where the water quality indicated the comparative benefits of the dug-well. This choice was a difficult one, because the funding agency who was paying for the fieldworkers' salaries expected a one-size-fits-all recipe that could be exported to other areas of India. Refusing to do so was not easy, but we eventually decided that valuing local specificities was safer and more respectful to the local people for two reasons. First, a dug-well is not only a matter of water, but equally a matter of soil. It seemed safer and more reasonable to trust locals not only on how to handle their water, but also on how to handle their soil, particularly when dug-well revival entails the risky procedure of going down inside the hole and cleaning it up. Second, local knowledge, while never homogenous nor endogenous, was struggling amid multiple conflicting interventions by political and commercial entities.

Project Evolution and the Anthropologist's Role

After the flooding emergency subsided, MPA organized a comprehensive water testing effort, concentrating on the 50 most-used water sources in each of the 22 *panchayat* (the smallest administrative unit), and testing for several parameters, including bacteriological contamination, iron, arsenic, fluoride, and residual chlorine. We tested water sourced from hand-pumps, the main technology through which people accessed drinking water, and, when available, also from dug-wells. Each test result was associated with a social profile of the technology and the locals accessing it. We tested the water with color-coded reagents developed by a Delhi-based organization that also trained the team members on basic water quality and testing. Some of the results were consistent with the information obtained locally, such as the high amount of iron present in hand-pump water (around 3 milligrams/liter against permissible limits of 0.3 mg./liter). Despite not identifying the contamination with iron at the time, locals were very aware of its effects on human health and its visible traces in the water. We also found high levels of arsenic in a worrisome number of hand-pumps in areas not officially declared as arsenic-affected. On the other hand, the shallow water sourced from dug-wells was consistently and surprisingly free from iron and arsenic, but contaminated bacteriologically.

In our research, we found a clear connection between the results of the biological contamination and iron tests and the sensorial evidence of water in its material state. In fact, the water contained in the dug-well is visible—visibly available or scarce, visibly clean or dirty. People perceived the dug-well water as dirty, but that was because they had stopped cleaning the dug-wells and had stopped sharing information on how to clean them.

Instead of supplying a solution, this project staff chose to engage local stakeholders in extensive conversations about dug-wells and encourage knowledge transmission on how to clean them. As a result, several families started to revive dug-wells, cleaning and restoring them at their own expense.

The very first pilot project, which actually started on its own, supported the point noted above that local knowledge was struggling against competing interventions by political and commercial entities. Nonetheless, after a few meetings in several villages, we were invited to visit a newly cleaned dug-well. The owner of the well, an 88-year-old man, welcomed us with all honors. He was extremely proud not simply for having clean water from his century-old dug-well—much better than the stinking water

sourced by his hand-pump—but for having descended himself inside the dug-well with his great-grandson, aged 17, and teaching him how to clear it safely. That rewarding moment stuck with me: I can still hear the emotion of this aged man relating how his adolescent great-grandson "listened" to him. Therefore, we included in our discussions about dug-wells some precautions about safety, and to our relief, no accidents have occurred thereafter.

Outcomes

MPA contributed some materials such as bricks and cement when repairs were extensive, and provided some guidance when invited. In poor villages inhabited by low castes we contributed more significantly. MPA directly facilitated the revival and maintenance of approximately 50 dug-wells. Many more have been revived by locals on their own. Our intervention has two conditions: first, the cleaning occasion must involve as many people as possible and from all castes present in the village and the area; and second, anybody and everybody should be able to access the well on their own. When I visited the pilot village discussed above a few years later, the grandson had taken over the management of the dug-well. Instead of hiring laborers, he used to clean it by himself, involving his peers from different castes—although no low castes inhabit that particular village. He also reassured us that any passersby could access the water of the dug-well.

As the news about the success of the dug-well was spreading on its own, the local governmental administration of the Khagaria district, a heavily arsenic-affected area, decided to sustain the program financially and to reimburse part of the expenses to the families who revived their dug-well or dug a new one, as well as to dig new wells in Mahadalits villages.[32] The initiative was welcomed by MPA with mixed feelings: while happy that our initiative had found the important partnership of the government, we were slightly wary that such a people-led initiative could be misappropriated for political purposes, or could then be perceived as yet another relief operation. I went to meet Khagaria's then district magistrate (a representative of the state, and the highest state authority of the district), Abhay Singh, and found him very approachable and sensitive to our concerns. He completely understood my worry, and he was willing to set up a process with which we were also comfortable. We decided to work through NREGA[33] so that the people themselves would continue to clean the wells, but their work would be paid as wage labor. Singh rightly argued that while the dug-well was for the locals' benefit, it was also a public good that the state was paying for elsewhere, as with for roads and bridges. I realized that in this case, however, public ownership did not mean government ownership, and we could still clarify that regular maintenance was the villagers', not the state's, responsibility. It is interesting to remember that, when Eklavya Prasad related the news of the government's interest in the project to MPA's organization heads, they laughed it off. "There isn't enough grease in it to make the machine work," they said. Shortly after our meeting in 2011 and the revival of just a few dug-wells, Abhay Singh was suddenly transferred and the initiative slowed down.

Tired of waiting for government intervention, several villages took matters into their own hands. In 2015 in the Khagaria district, we detected an arsenic seasonal average of 250-300 parts per billion (ppb); the permissible limit is 10 ppb. As a result, one temple management committee—set up to renovate a temple—decided to divert part of their funds to revive the dug-well located in front of the temple. They

32 Mahadalits are a political category of extremely discriminated dalits initiated by the State Government of Bihar, which affords special status to 23 (24 with the inclusion of Ravidas) dalit castes.
33 National Rural Development Employment Guarantee Act, a governmental scheme for guaranteeing 100 days of salaried work by the public utility.

also pledged to maintain the water of the dug-well as a service to the community. Prioritizing the dug-well over a temple is far from commonsensical, but the temple management committee clearly stated that the dug-well was not only a source of clean water and a hope for a village suffering from high mortality (in all probability due to cancer), but also the symbol of a collective resource. In their eyes, this event marked the possibility of collectively prioritizing and managing water.

Several more villages are joining the movement on their own. In a neighboring village in the same district, Khagaria, locals are also getting organized. Since the village is recurrently flooded, its inhabitants have been asking the government and the NGOs who work in the area to help them financially to set up a dug-well, but this is not considered a priority by these institutions. In early 2017, a villager donated a piece of land for this purpose, the first important step toward dug-well construction. In West Champaran, one specific revived dugwell is visited daily by persons belonging to different castes, including the lowest, the dalits. Distance to a water source is no longer a deterrent; several women told me that, while they had been asking for a hand-pump for their households for a long time, now that they were aware of its problems, they preferred to fetch drinking water from the village's revived dug-well, even if they had a hand-pump at home. I have also heard about—but not visited as yet—a neighboring village in the same district, West Champaran, where a Rajput woman whose husband had recently died of cancer, and she hsd renovated a dug-well at her expenses and has invited her village, as well as the Muslims of the nearby settlement, to use it.

One aspect of the wells that MPA has helped renovate has been to unintentionally oppose castism. When re-plastering and repainting the top of a well, the name *Megh Pyne Abhiyan* has been written on the *chabutra*, the platform. I remember telling people that the wells were theirs, not MPA's, but I was not reading the phenomenon correctly. Typically, writing the name of an *Abhiyan* (a campaign, a social movement) is meant to be a sign that no individual owns the well, that the well itself is a social initiative. In a society where access to wells and their water has been discriminatory for as long as people can remember, this fact signals inclusion and gives implicit permission to anybody to access the water of the dug-well.

Caste-based discrimination is hard to overcome. Fortunately, MPA's principle against castism dovetails progressive trends already prominent in the area. We were also aware that there are many subtle ways in which water discrimination happens and is internalized. I have seen members of the Dalits castes (formerly also called untouchables) asking for water to be poured on their palms, or carrying their own glasses to avoid "contaminating" public vessels. I have been given plastic glasses at tea stalls when it was clear I did not belong to the caste system.

Dug-well renewal has not always been an easy path, and despite the above successes, has reached its objective only partially. In several villages, people have cleaned the dug-wells a few times, only to stop doing so. Not in a single case, however, were locals not satisfied with the quality of the water obtained. "The water tastes sweet, they say," my field-assistant and MPA colleague has commented ironically, "but society [read: collective management] does not." Villages where male seasonal migration is very high (above 50 percent) often have other priorities and are more likely to stop maintaining the dug-well. In general, I have always found women to be the most vocal about water quality, but, without men for a few months every year, their lives are even harder than usual. Also, although women complete the hardest of tasks as daily laborers, cleaning the dug-well is not considered "doable" by women. The experience of dug-well renewal was not free of conflict, either. *Tikedars* ("fixers," middle men) have not taken kindly our refusal to utilize their mediatory services. And yet, our projects have succeeded in challenging local ideas about how social development interventions work. Further, I have yet to

encounter a single case in which a renewed dug-well has been manipulated to reinforce caste-based discrimination.

MPA has had its share of hardship, too. Since 2011, MPA's staff has not been financially supported in any project regarding dug-wells and is working on the topic on a volunteer basis. Dug-well revival is simply not in donors' agendas, and our modality of intervention is not seen as compatible with donors' priorities. For example, we refused to claim that our interventions have saved a certain number of lives. MPA has not invested in a donor-friendly organizational structure, either; its only active "cosmopolitan" member is Eklavya Prasad. While there are many local organizations in Bihar, I find that their activities reflect the donors' priorities, and MPA has been generally resistant to compromise and implement external priorities. Despite these difficulties, most of us continue to work voluntarily (I have long served as a pro-bono advisor to MPA, but my condition is hardly comparable to that of my local colleagues) and support each other's families with other means. In the past several years, we have continued to facilitate partnerships with other organizations and agencies with whom we share objectives. Our water testing results have been confirmed by officially accredited labs, such as the A.N. Sinha College Geology Department, with whom we have set up an ad-hoc partnership. The local hydrogeology has been studied by an Indian nonprofit, the Advanced Center for Water Resources Development and Management (ACWADAM), whose study supports our work on dug-wells.[34] We have facilitated the work of other institutes and researchers in terms of the quality of drinking water in the areas where we work. In addition, the Mahavir Cancer Hospital from Patna pledged to diagnose and treat cancer patients at no cost from arsenic-affected areas identified by MPA.

As an anthropologist, however, I believe the project has yielded several other important results. Practically, the dug-well fetches cleaner water, which is a substantial improvement in the local living conditions, by decreasing the negative health impacts of dirty water and its related medical expenses. Second, the level of awareness regarding drinking water quality has improved, even when dug-well revival has failed. Third, North Bihar is an area with recurrent disasters, where "addiction" to government schemes and relief activities is rampant, and where development interventions generally operate through funds and technology transfers. In contrast, the project has made it evident that dug-wells—and water more generally—can be invested in and managed directly by its users, without the need for external forces or copious resources, apart from labor. This is not necessarily an argument against the state's involvement's in water supply, nor does it undermine the right to water, but it demonstrates that people, in certain contexts, do not have to passively wait for others to provide them with water.

Fourth, in a context wherein both governmental and non-governmental interventions are designed as packets of ready-made solutions, where only the experts are entitled to teach, MPA broke the mold by *not* presenting itself as an expert or a decision-maker on water management. Instead, the anthropological research methodology of participant observation and informal interviews, as well as the campaign's modality, placed MPA squarely in the position of the learner. The intervention was an occasion for provoking and facilitating informed conversations on water issues. Locals taught us about dug-wells, and MPA merely (re-)spread the information about their relevance. MPA tested the water and confirmed the results through authorized laboratories, yet the results were shared with caution and only in comparison to people's impressions about their health. No recipe for cleaning was provided, under the assumption that the best recipe was available locally through the village elders, which was confirmed by post-cleaning tests. This method built confidence in local knowledge vis-à-vis

34 http://dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/7394/499.pdf?sequence=1.

official/government knowledge. In a few villages, this experience has helped local knowledge beyond water, with residents openly discussing the disadvantages of modern agriculture vis-à-vis earlier methods, and finding new arguments against genetically modified agriculture. Lastly, where dug-well revival has been successful, the confidence in local knowledge relatively lessened the charismatic value of "modern" objects and technologies to the advantage of tried and tested local knowledge. The pride and value of the hand-pump as a status symbol declined in the villages where people re-adopted the dug-well. This change was also felt by the younger generation, who were earlier more prone to the charisma of the hand-pump.

The Anthropological Difference

Reflecting back, there were two important limitations to the way in which I, as an anthropologist, engaged with the project. First, out of caution, I did not explicitly market the dug-well revival initiative as an anthropology-based water and knowledge management project. This lack of an explicit branding as an anthropological project discounted the importance of anthropology in the media's wider representations of the project, which focused more on the water testing results and less on the process of reviving the well. As a result, the project's social and political potentials and achievements got diluted. Second, I was not successful with involving other anthropologists in these efforts. While MPA was—eventually—enthusiastic about having more applied anthropologists on board, we failed to recruit any, probably also because of the minimal salary offered. I continued to help remotely and with annual visits of a few months at a time, but that is not sufficient to keep an organization running. A stronger presence of applied anthropologists would help exploit the social and political possibilities of MPA and of the dug-well revival project.

Theoretically, the project has yielded at least three interesting results. First, by unpacking the concept of tradition, this research has built confidence that a development project, when informed by in-depth ethnography, can reinterpret traditional practices yet avoid its un-desired effects, i.e., the reproduction of caste-based discrimination. Because of the loopholes of the traditionalist discourse—a discourse that, particularly in relation to water management in India, overplays the importance of tradition—we have risked "throwing away the baby with the bathwater." One of the findings of this project has been that the way out of the loopholes of the traditionalist discourse precisely lies in engaging with the concept of tradition at the level of program design and implementation. While the project was explicitly against the use of tradition as a black box, hiding covert interests, opening conceptual and practical traps in a meaningless paradigm, it also realized that tradition has a grip: instead of being dismissed, it can be interpreted as an arena of socio-political action where NGOs have a role to play. It takes awareness of the historical and contemporary— contexts that applied anthropologists are equipped to obtain—to gauge the prospects of a project.

Second, while development is often being accused of being "the anti-politics machine," strengthening traditional powers and even de-politicizing political issues, this project has been designed to eschew attempts of appropriation from power holders. Doing so required confronting the political stakes of the project, hence refusing the standard modality of development interventions and avoiding the facilitation of local mediators (other than MPA's staff, obviously). Again, this has been achieved precisely through the "anthropological difference," or the ethnographically collected evidence about the political relevance of water-related technologies.[35]

35 Familiarity with the anthropological literature also helped to understand the historical power of water in India, and I am indebted to many authors on the topics of the political aspect of technologies

Third, although certainly not the first of its kind in other corners of the world, this applied anthropology project has set a precedent in terms of the feasibility of understanding the development cycle as a continuum. While conceptually it makes sense to distinguish activities of research (including feasibility), and of project design, project implementation, and evaluation, these phases do not have to be temporally distinguished, at least after a robust initial research phase. Instead, uninterrupted research can continue to inform the project in its various phases of design and implementation, which in and of themselves do not need to be temporally separate, but can occur simultaneously with continuous readjustment and finetuning. Anthropological involvement is not be contained in the pre-project feasibility study and in the post-facto evaluation. This method implies that anthropologists are good at getting data, but not at applying them in social development projects, nor at leading teams of development fieldworkers. Instead, this project can serve to demonstrate that an applied anthropologist can do her/his best work when involved in all the project phases.

Finally, this project also shows the important role anthropology can play in managing an inherently interdisciplinary matter such as water, and in preparing development personnel to work across multiple disciplinary fields between the natural and the social sciences. In this case, the ethnographic research influenced the NGO's practices: involving the NGO's local fieldworkers in all phases of research convinced them that the way in which the project was implemented was key to the success of the project even more than the technology itself, and enabled them to fine-tune their work to locally meaningful values, instead of to the donors' values.

In MPA's dug-well revival project, anthropology, both in its conversations and in its methodologies, as well as in its applied interdisciplinary experience, has proven critical to unpacking the complex dynamics of tradition, dovetailing the progressive trends of equality, building confidence in the utility of local knowledge, and upsetting the problematic modality of development intervention previously known in the area. Over the course of 10 years, and even more so in the five years after the end of the active project, the utility of anthropological engagement has been proven by its inconspicuousness. By being absorbed into the everyday and not sticking out, this applied anthropological commitment has proven its ability not only to understand society, but to become part of it.

Epilogue

After the first five years of active engagement by MPA (2007-2011), the project began running itself over the next five years (2012-2017). Even without a budget for the dug-well intervention, MPA has provided continuous, although marginal, support. Of course, to be scaled up and spread, the idea would benefit from a renovated commitment, but it is exactly this self-supporting ability that proves the sustainability of the self-management formula.

and artefacts, the political complexities of knowledge, and the stakes of managing common property resources.

The 17-year-old great-grandson (shown here when he was 20) learned from his 88-year-old great-grandfather and has taken over the responsibility of cleaning the village dug-well.