Chapter 4
Beyond Digging and Filling Holes: Maximizing the Net Positive Impact of MGNREGA

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4.1 Background

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) was enacted by the Indian Parliament in 2005. Starting with the 200 most 'backward' districts, the implementation of the programme spread to an additional 130 districts by 2007–08 and to all the districts of India by 2008–09. In 2013-14, MGNREGA generated 2.3 billion person-days of employment for over 50 million rural households; more than half the person-days went to women and more than 40 per cent to the SC and ST population (see Table 4.1). With the annual outlay of over US$ 6 billion, MGNREGA is arguably the world's largest employment guarantee programme. It may as well be the world's largest rural water security programme, as over half the MGNREGA funds are being invested in water-related works (Shah et al. 2011).

MGNREGA was introduced as a flagship social security programme of the Government of India but instances of large-scale corruption, political favouritism and poor quality of assets have resulted in fierce criticism and disenchantment with the programme. One of the biggest strengths of MGNREGA is believed to be its self-targeting design. This implies that unless there is widespread systemic corruption, the programme's benefits can be expected to reach its desired beneficiaries as the rural elite are unlikely to be willing to do unskilled manual labour at minimum wages.

However, this strength might also turn against the programme for two reasons. One, such a targeted programme might get branded as '*raahat kaam'* (relief work)

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Table 4.1 MGNREGA performance over the years

Parameters	Units	2006-07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15
Number of job cards issued	Million	37.85	64.74	100.15	112.55	119.82	122.75	130.61	130.57	123.03
Number of HHs that demanded employment	Million	21.19	34.33	45.52	52.86	55.76	50.35	45.61	53.93	45.27
Number of HHs that were provided employment	Million	21.02	33.91	45.12	52.53	54.95	49.86	45.58	50.06	45.19
Person-days of employment generated	Billion	0.91	1.44	2.16	2.84	2.57	2.11	2.30	2.30	1.60
Share of women in employment person-days	per cent	40.65%	42.52%	47.88%	48.10%	47.73%	48.18%	51.30%	51.86%	53.94%
Share of SC/ST in employment person-days	per cent	61.81%	56.71%	54.72%	51.20%	51.48%	40.20%	40.01%	42.47%	40.39%
Total expenditure (₹)	Billion ₹	88.23	158.58	272.51	379.10	393.77	375.49	368.52	370.78	317.77
Total expenditure (US$[a])	Billion US$	1.47	2.64	4.54	6.32	6.56	6.26	6.14	6.18	5.30
Total expenditure per person-day employment[b]	$/day	$1.62	$1.84	$2.10	$2.23	$2.55	$2.96	$2.66	$2.69	$3.32

Source: MoRD (2015) http://nrega.nic.in/netnrega/home.aspx

[a]Calculated assuming average exchange rate over the years as: 1 US$ = ₹ 60

[b]Authors' estimate based on total expenditure and person-days of employment generated

in the minds of its intended beneficiaries as well as the implementing agency. Worse, the beneficiaries may come to view it as a precursor to a future unconditional entitlement. Two, the programme may completely bypass and is likely to be overlooked by the better-off farmers and the rich rural elite, who, either officially via the *Gram Panchayat* or unofficially via strong socio-cultural networks, tend to be the opinion makers in the village.

It is therefore important to distinguish between the programme's wage and non-wage benefits and to understand that, while the poor may benefit from both, the better-off in the village would be interested primarily in the latter. The challenge is to enhance the stake of both groups in maximizing the net positive impacts (Shah 2009).

4.1.1 Studies and Methods

In 2009–10, and then again in 2010 and 2010–11, the International Water Management Institute (IWMI) worked with masters students from the Institute of Rural Management, Anand (IRMA) to: (a) understand how MGNREGA and village labour markets interact; and (b) document case studies of over 140 best-performing MGNREGA water assets (Fig. 4.1). Detailed tables are in annexure: Tables 4.5, 4.6 and 4.7).

In 2009–10, 35 students were asked to provide a qualitative overview of MGNREGA implementation in their village while collecting specific data on MGNREGA works. This was largely an exploratory study to understand the dynamics of MGNREGA implementation; students were given a common village schedule which they were asked to fill-up based on focussed group discussions with villagers.

Fig. 4.1 Study Locations. **a** Districts covered in exploratory study on MGNREGA, 2009–10 **b** Districts covered in study of MGNREGA—labour market interactions, 2010 **c** Districts covered in case studies of best-performing MGNREGA water assets, 2010–11

In 2010, 27 students undertook fieldwork with specific research questions and hypotheses to explore the interactions between MGNREGA and rural labour markets. The students used a common research framework and were asked to explore the following aspects of labour market interactions with MGNREGA. They were

a. Has MGNREGA implementation had an additive or substitutive impact in the village;
b. How have local wage rates changed;
c. Has there been any segmentation in the village labour market;
d. What is the role played by the MGNREGA work supervisors;
e. Has there been any change in the incidence of shared cropping and land leasing; and
f. What has been the impact of MGNREGA on migration?

Further, in 2010–11, eight students spent 10 weeks and surveyed more than 600 landless and marginal farmers and nearly 350 medium and large farmers; they also conducted 143 case studies of best-performing MGNREGA water assets in 75 villages across four states (see Table 4.2). For the case studies of MGNREGA assets, the students followed a common case study protocol. For the survey of village leaders, labourers and farmers, village schedules and structured questionnaires were used.

In addition to these, the authors also undertook fieldwork in Rajasthan, Madhya Pradesh, Gujarat, Haryana, Punjab, Uttar Pradesh, and West Bengal (Shah and Indu 2009; Verma 2010; Verma and Schwan 2012).

In Sect. 4.2 of this chapter, we discuss how prevailing conditions in rural labour markets influence MGNREGA implementation. In Sect. 4.3, the impact of MGNREGA implementation on rural labour markets is presented. Section 4.4 focuses on the views, attitudes, and perceptions about MGNREGA among rich and poor villagers. Section 4.5 discusses the case studies of 143 best-performing MGNREGA assets. In Sect. 4.6, we try to draw inferences and lessons from all the studies and fieldwork and enumerate some practical suggestions for improving the net positive returns from MGNREGA. We conclude in Sect. 4.7 with a discussion on the emerging new context of MGNREGA.

4.2 How Do Local Labour Markets Influence MGNREGA Implementation?

The design of MGNREGA assumes that every village has poor people who demand more work than is locally available at the government-determined minimum wage rate. While this might broadly be true for India as a whole, it is certainly not true everywhere. In all, we found four distinct situations of MGNREGA's interaction with local, especially agricultural, labour markets (Table 4.3).

Table 4.2 Sample sizes in each of the four states covered in 2010–11

State	District	No. of assets studied	No. of villages covered	Field Surveys (No. of respondents)		Student reports
				Landless and marginal farmers	Medium and large farmers	
Bihar	Bhojpur	10	08	51	41	Kumar and Chandra (2010)
	Nalanda	15	10	92	49	
	Vaishali	10	05	43	25	
Gujarat	Junagadh	16	13	65	72	Gaur and Chandel (2010)
	Sabarkantha	18	08	80	29	
Kerala	Palaghat	40	12	98	56	Nair and Sanju (2010)
Rajasthan	Dungarpur	21	09	85	35	Singh and Modi (2010)
	Tonk	13	10	90	40	
Total		143	75	604	347	
				951		

Table 4.3 Four distinct types of MGNREGA labour market interactions

	Type I—Misfit	Type II—Insignificant	Type III—Potentially significant	Type IV—Significant
Wage rates	$W_{LOCAL} > W_{MGNREGA}$	$W_{MGNREGA} > W_{LOCAL}$	$W_{MGNREGA} > W_{LOCAL}$	$W_{MGNREGA} > W_{LOCAL}$
Conditions	Booming local labour market offering much greater opportunities	MGNREGA work insignificant vis-à-vis local demand	MGNREGA potentially significant but poorly implemented	MGNREGA significant vis-à-vis local demand
Examples	Kutch (Gujarat), Uttarkashi (Uttarakhand), Kangra (Himachal Pradesh)	Godda (Jharkhand), Koraput (Orissa), Nalanda (Bihar), Narmada (Gujarat)	Narmada (Gujarat), Mandla (Madhya Pradesh)	Dholpur (Rajasthan), Palakkad (Kerala), Chittoor (Andhra Pradesh), Jalna (Maharashtra)

Source Authors' conceptualization

4.2.1 Type I: Misfit

In this case, a booming local labour market, with work going aplenty at much higher than the official minimum wages, makes MGNREGA a 'misfit' and difficult to implement for lack of demand. There was neither interest in the scheme's wage benefit nor in its non-wage benefits.

Shah et al. (2011) provide a glimpse into this from the field studies in Mundra, Kutch district in Gujarat, where people have hit jackpots by selling their land at very high prices and were able to access limitless work opportunities at twice the MGNREGA wage rate or more. There were no work-seekers; yet the block and district administration were relentlessly pressurizing the *Panchayat* leaders to find people to work in the programme. Somewhat similar were Uttarakhand and Himachal Pradesh villages, where the prevailing agricultural wages were equal to or far above the minimum wages resulting in a general indifference towards the programme; and it required an unusually enthusiastic *Panchayat* leadership to goad people into joiningMGNREGA works.

4.2.2 Type II: Insignificant

This is the situation of no or insignificant interaction between MGNREGA and the local labour markets. In other words, MGNREGA neither had any impact on the functioning of the local labour markets; nor did the labour markets significantly affect the programme's implementation. In Godda (Jharkhand), Koraput (Orissa) and Nalanda (Bihar) villages, the volume of MGNREGA work on offer was too small compared to the demand and the total size of the labour market. Here, MGNREGA had no perceptible impact on the working of the local labour markets, nor was the scheme able to substantially animate the village community.

4.2.3 Type III: Potentially Significant

This is the situation where MGNREGA wages were significantly higher than local wages and the volume of potential MGNREGA work was also significant and yet, MGNREGA invoked a lukewarm response from the community owing to administrative bottlenecks, distrust, systemic corruption, lack luster implementation or lack of awareness.

In Narmada (Gujarat), the prevailing local agricultural wages were roughly a third of the MGNREGA wages on offer. The local Panchayat rallied to initiate MGNREGA works in the village but was discouraged by a passive block administration.

When they finally managed to initiate some work, there were long delays in the payment of wages prompting villagers to give up on MGNREGA and return to the residual labour market, which paid out cash wages instantaneously (Verma 2010). Likewise, in Mandla, people initially took to MGNREGA enthusiastically but shifted back to lower paying works as MGNREGA wage payments took as long as 6 months.

4.2.4 Type IV: Significant

This is the situation in which MGNREGA presence is large enough to catalyze widespread interest in the community and to significantly alter the structure, conduct and performance of agricultural labour markets. We found this, to some extent, in Dholpur (Rajasthan) and to a much greater extent, in Palakkad (Kerala), Chittoor (Andhra Pradesh) and Jalna (Maharashtra) villages.

Thus the prevailing labour market conditions define how village communities react and respond to MGNREGA. In labour-scarce regions, MGNREGA is unlikely to find many enthusiastic takers as the prevailing market wage rate would be higher than the MGNREGA wages. However, in labour-surplus conditions with depressed market wage rates, a well-implemented MGNREGA is likely to bring huge relief to the labourers.

4.3 How Does MGNREGA Influence Local Labour Markets?

Bhalla (2004) argued that the unemployment rate among the poorest—the agricultural workers—was only 1 per cent and therefore, MGNREGA was unlikely to benefit them much, especially since it offers work at low (minimum) wages. However, the response to MGNREGA and the scale of its implementation has been overwhelming, with significant and possibly irreversible impacts.

According to the official statistics released by the Ministry of Rural Development (MoRD), till date MGNREGA has spent US$ 51.7 billion[1] and generated more than 19.6 billion person-days of employment for roughly 50 million participating households. A large part of this employment accrues to women and SC/ST participants (Fig. 4.2). Bhalla (2010), however, argues that the official figures of employment generation are gross over-estimates and that the actual figures are likely to be closer to half these numbers.

[1]Assuming an average exchange rate over the years as: 1 US$ = ₹ 60.

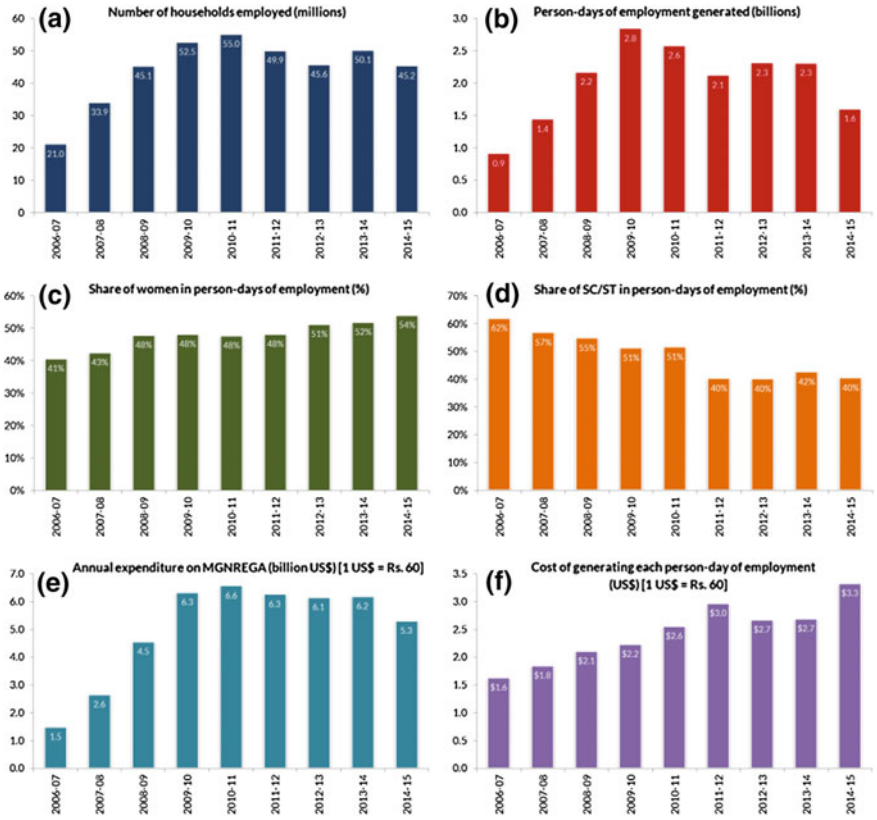

Fig. 4.2 Performance of MGNREGA over the years. *Source* MoRD (2015)

4.3.1 Tighter and Segmented Labour Markets

Where the interaction between MGNREGA and labour markets has been significant, it has altered the local labour markets in several ways. It has increased work participation rates by offering attractive, accessible and convenient work opportunities, thereby shifting the labour supply curve outward.

It has partitioned the pre-MGNREGA labour market into two: the MGNREGA market and the residual labour market. By removing a block of labour supply from the residual labour market, MGNREGA has created labour shortages and pushed up wage rates in the residual market.

Further, administrative pressures to implement MGNREGA works can create incentives for site supervisors and managers to be lenient in work measurement. This would mean that the MGNREGA segment of the rural labour market, over time, become less productivity-sensitive vis-à-vis the residual market. This, among other factors, has attracted women and less-able men to MGNREGA works.

For MGNREGA to have major impact on farm labour markets, it is critical that the volume of work offered under the scheme is substantial during the peak agricultural season. In Dholpur (Rajasthan), much MGNREGA work was scheduled during summer when farm labour demand was low; therefore, the scheme's impact on labour market was relatively small. Here, MGNREGA work was additive; it expanded the labour market by attracting new labour to the work force without drawing away a significant chunk of workers from the residual market.

Similar results were reported from Bikaner and Rajsamand (Rajasthan); Idukki and Trivandrum (Kerala); West Sikkim District (Sikkim); and Chittoor (Andhra Pradesh). In Palakkad (Kerala), however, the plantation economy demands farm labour throughout the year; and here, MGNREGA offered nearly 100 days of work to anyone who asked; as a result, the scheme's impact on labour market was broad and deep, raising female wage rates from ₹ 60 to ₹ 90 and male wage rates from ₹ 100 to anywhere between ₹ 150 and 225/day. The impact of MGNREGA in Palakkad, therefore, was substitutive; it withdrew a sizeable, mostly female, work force from agriculture. To make up, farm wage rates had to go up 50–70 per cent.

Several parallel effects seem to be in operation here. The scheme puts into the hands of poor people significant amount of cash that reduces the need for distress or forced labour. Our survey of landless and marginal farmers across 75 villages in four states found that, on average, MGNREGA workers experienced more than 50 per cent increase in income from labour; from ₹ 9,177 to ₹ 14,551 per annum. Where MGNREGA is implemented on full scale, farm and non-farm labour markets become tighter, putting pressure on wage rates.

4.3.2 Increased Women Participation and Reduced Male-Female Wage Ratio

MGNREGA work has found particular appeal among poor women who find the wages attractive and the facilities at the work site—such as crèche and shade—particularly convenient. Finding work close to their home also increases the scheme's appeal. In Bambara village of Adilabad, the Panchayat also offered flexi-time on MGNREGA works which enhanced its appeal even further.

The convenience and appeal of MGNREGA—besides the general impression of MGNREGA work being light and poorly monitored—also attracts relatively less poor rural women to the scheme, some entering the labour market for the first time. In a Dholpur village (Rajasthan), it was noted that when SC/ST women first joined the MGNREGA work force, *Thakur* women stayed aloof; but soon, they too joined and got away with shirking work while the SC/ST women did the hard labour. Likewise, in Idukki (Kerala), we found that almost all economically inactive middle class women joined the MGNREGA labour force.

Since the residual labour markets pay significantly higher wages to male workers than to their female counterparts, MGNREGA sites were doubly more attractive to

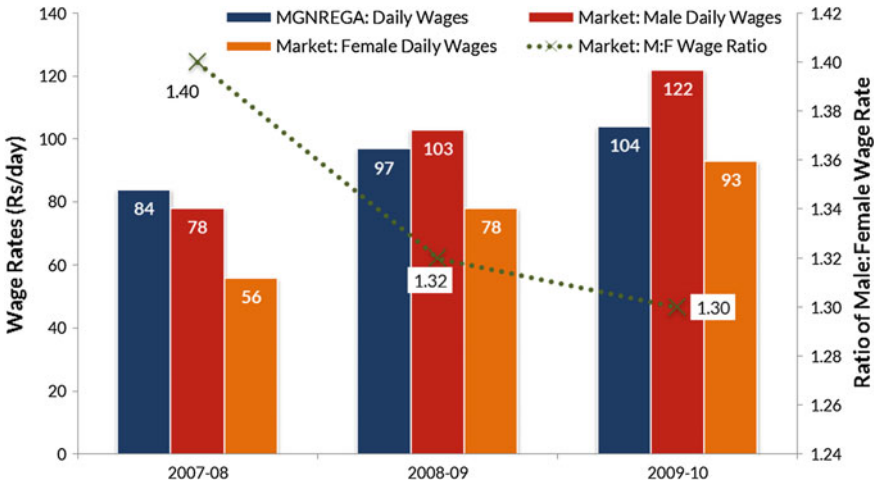

Fig. 4.3 Impact of MGNREGA implementation on Male and Female wage rates. *Source* IWMI-IRMA village surveys in 2010–11

women workers. In Palakkad villages, the labour market got vertically segmented: women, old and the infirm choosing MGNREGA but able-bodied men demanding higher wages in farm jobs.

Likewise in Rajsamand and Dungarpur (Rajasthan) where migration to urban centres like Udaipur, Ahmedabad and Surat offers lucrative opportunities for men, much of the MGNREGA workers were found to be women and older men who had discontinued migration. Women found MGNREGA work attractive since it gave them extra cash they could spend on themselves and on household items. For which they earlier had to depend on their husbands/male family members and had to wait for them to return home during festivals (Verma 2010).

Wage data from our surveys in 75 villages shows that not only have the wages in the residual market been rising steadily, the ratio of male wages to female wages has been declining (Fig. 4.3). This is a positive outcome of the pressure MGNREGA exerts on the residual labour markets.

4.3.3 Less Clear Impact on Migration

Surveys revealed that farmers in popular migrant destinations repeatedly complained about reduction in the inflow of migrants and the demand for higher wages and better facilities by the migrant workers. At the same time, in migrant-source locations, we found no significant reduction in out-migration.

Shah and Indu (2009) reported that in many villages of Punjab and Haryana, MGNREGA was seen reducing the inflow of migrant labour; and even those

workers who come often prefer to work on MGNREGA works. In Rithal village of Rohtak district in Haryana, farmers depended heavily on migrant labour from Madhya Pradesh. These migrants however started working on MGNREGA works in Rohtak. Farmers felt that poor people and migrants prefer MGNREGA work at ₹ 135 per day rather than farm work at ₹ 200 per day, because, the former is lighter and less rigorously supervised. Farmers are now using JCBs to get their earth work done.

Our overall impression was that while MGNREGA implementation reduced distress migration, opportunistic migration continued as before. MGNREGA wages could not match up to the wages able-bodied men could earn by migrating to urban centres where the wages are much higher. Moreover, administrative bottlenecks might have tempered any potential impact on out-migration. In Mandla (Madhya Pradesh), MGNREGA implementation initially reduced out-migration but delays in payment of MNGREGA wages led the people back to their migrant ways. Similar delays were also reported elsewhere.

4.4 Attitude of the Rich and the Poor

The principal-agent problem comes to full play in MGNREGA. Moral hazard is openly evident, so is adverse selection. A working hypothesis we had was that works on private lands would be better monitored compared to works related to development/rejuvenation of common pool resources (CPR).

For instance, in some villages of 24-Paraganas district in West Bengal, Shah and Indu (2009) found MGNREGA work on private fishing ponds was supervised well, all funds available were utilized and wages were paid promptly. Shah and Indu (2009) also reported that people applying and then not reporting for work was emerging as a big issue in Punjab and Haryana villages.

In one village near Rohtak town, the *Pardhan* got a MGNREGA project to get irrigation drains de-silted, but most people who applied for work refused to come despite cajoling and coercing; so children, old people and anyone who would work, were to be persuaded to complete the work.

Large land owners are at the receiving end of MGNREGA. Subodh Saha, a large farmer who migrated from Bangladesh on the basis of land exchange, asserted that MGNREGA was government's plan to finish off the farmers. '*When people got ₹ 80 for doing 'nothing', why would they do hard farm labour for me?*' he asked (Shah and Indu 2009).

Similar sentiments were portrayed in eastern UP, south Rajasthan and West Bengal. Growing labour scarcity and the consequent rise in wages were the obvious grouses, so were the growing laziness of labourers and a decline in the work ethic. Our survey in 75 villages of Bihar, Gujarat, Kerala and Rajasthan tried to better understand the perceptions of the rich and poor regarding MGNREGA and its various aspects.

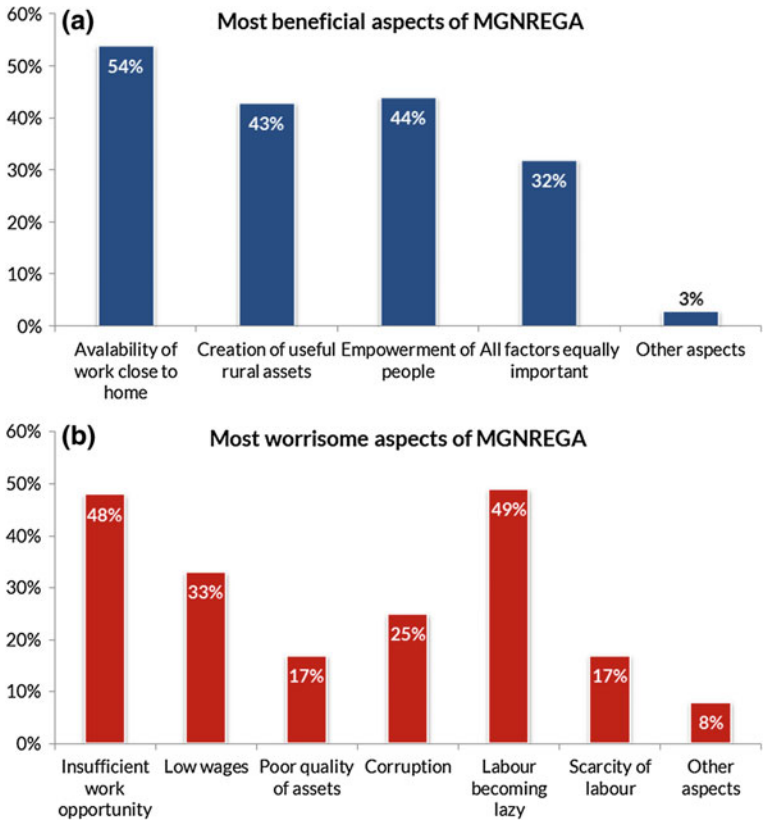

Fig. 4.4 Most beneficial and worrisome aspects of MGNREGA. *Source* IWMI-IRMA village surveys in 2010–11. *Note* The values on the *y*-axis represent the percentage of villages that chose the particular variable

In focused group discussions, we asked about the most beneficial and most worrisome aspects of MGNREGA in each village (Fig. 4.4). Not surprisingly, most groups mentioned 'availability of work close to home' as the most beneficial aspect of MGNREGA; 'empowerment of village communities, including women' was second; closely followed by 'creation of useful rural assets'.

In terms of the worrisome aspects, the most prominent was a dilution in work ethic expressed as 'labour becoming lazy'. Nearly half the groups complained about the 'lack of sufficient work' and one-third felt that MGNREGA offered 'low wages'. These groups demanded that MGNREGA be implemented more forcefully and at a larger scale. Interestingly, corruption and malpractices in MGNREGA did not figure prominently; and were reported by only one-fourth of the groups as worrisome.

As shown in Table 4.1, we surveyed around 600 landless and marginal farmers and around 350 medium and large farmers. The landless and marginal farmers are

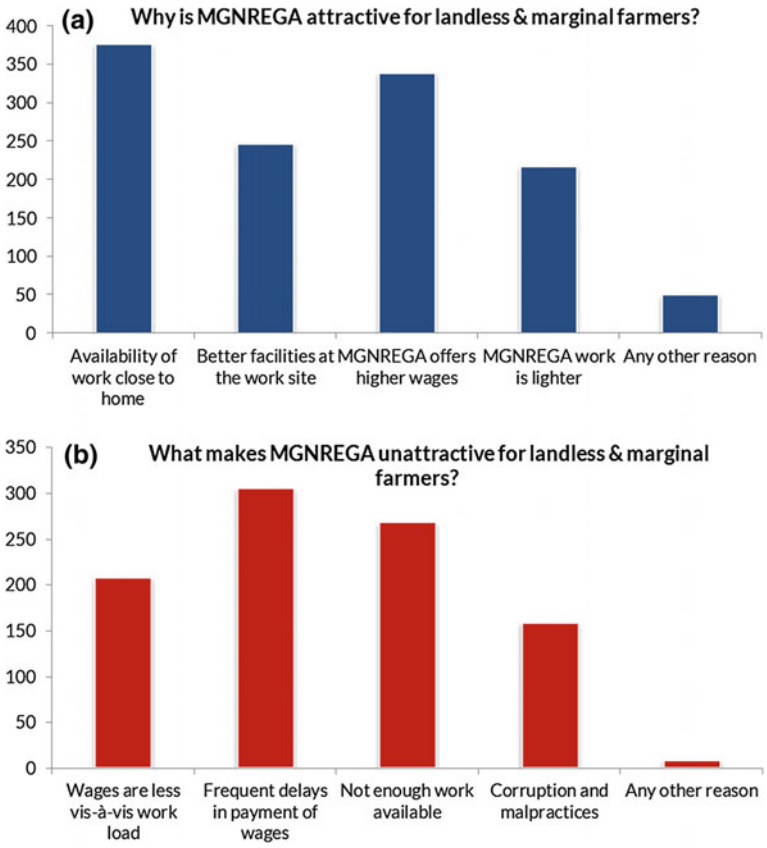

Fig. 4.5 Reasons why MGNREGA work is attractive and unattractive for labourers. *Source* IWMI-IRMA village surveys in 2010–11. *Note* The values on the *y*-axis represent a composite index based on ranks given by the respondent to the different variables

the most likely beneficiaries of the wage benefits of MGNREGA; we asked them reasons why they found it attractive; and reasons that made MGNREGA unattractive to them (Fig. 4.5).

As in the group discussions, 'availability of work close to home' was found to be the most attractive aspect of MGNREGA. This was followed by 'higher wages' than the prevailing residual market wage rates; somewhat contradicting the results from the group discussions. Labourers acknowledged that MGNREGA wages acted as the new wage floor and offered negotiating power to the labourers vis-à-vis their employers.

The labourers also appreciated the 'improved work-site facilities'; putting pressure on residual labour market to provide the same. Several labourers, especially women, acknowledged that 'MGNREGA work is lighter' compared to the residual farm labour market. Our respondents reported frequent delays in

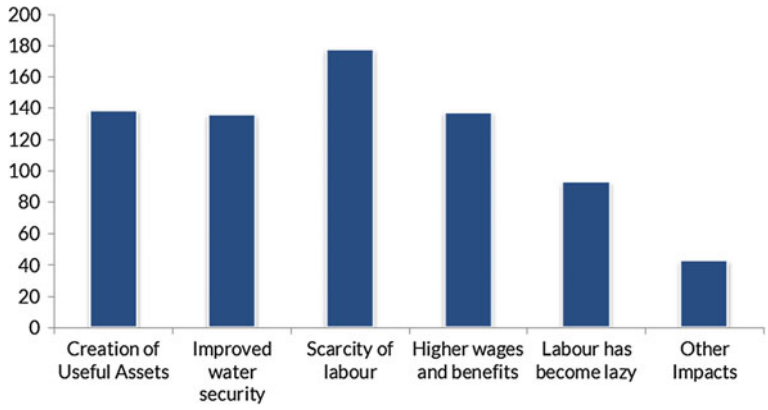

Fig. 4.6 Key impacts of MGNREGA for medium and large land-owning farmers. *Source* IWMI-IRMA village surveys in 2010-11. *Note* The values on the *y*-axis represent a composite index based on ranks given by the respondent to the different variables

MGNREGA wage payments and the non-availability of sufficient quantum of work as the most unattractive aspects of the scheme; several labourers were also unhappy with the unclear/arbitrary manner in which actual wages were calculated, leading to suspicions of corruption and malpractices. In some villages, labourers suspected that large farmers colluded with the MGNREGA administration to ensure that no works were carried out during the peak agricultural season. This significantly reduced their bargaining power.

In our interviews with medium and large farmers, the people most likely to hire labourers to work on their farms, we discussed their perceptions about the impact of MGNREGA implementation in their village (Fig. 4.6). These farmers, not surprisingly, thought that the biggest impacts of MGNREGA have been the growing scarcity of labour and the resultant hike in wages and benefits. Several of them acknowledged improvements in local water security and appreciated the creation of useful rural assets. The erosion of work ethics among labourers and their growing laziness was another key impact that they reported.

4.5 Overview of Best-Performing MGNREGA Water Assets

Our sampling of MGNREGA assets was purposive: in each state, the students selected the study villages after a review of secondary data and discussions with local MGNREGA officials. The objective was to document, through case studies, some of the best-performing MGNREGA water assets.

A common case study protocol was used (with slight modifications to suit the specificities of assets being studied). Of the 143 best-performing MGNREGA water

Table 4.4 Sample size of best-performing MGNREGA water asset case studies

State	District	Types of assets	No. of assets	No. of villages	Ownership	
					Public	Private
Bihar	Bhojpur	Pyne micro-canals; Ponds; wells	10	08	5	5
	Nalanda		15	10	14	1
	Vaishali		10	05	7	3
Gujarat	Junagadh	Ponds; check dams; wells	16	13	11	5
	Sabarkantha		18	08	13	5
Kerala	Palaghat	Public and private ponds	40	12	23	17
Rajasthan	Dungarpur	Anicuts; farm ponds, wells	21	09	17	4
	Tonk		13	10	9	4
Total				75	99	44
					143	

assets we studied (see Table 4.4), 46 were village ponds, 29 check dams and anicuts, 26 private ponds and farm ponds, 21 micro-canal works, 20 private wells and 1 river works. 60 of the studied assets were constructed afresh while 83 works involved renovation and/or capacity enhancement of existing infrastructure. 100 of the 143 works were completed before March 2009, while 40 of the remaining 43 were undertaken in 2009–10 and the remaining three, in 2010–11. With the exception of five works, all others were completed well within the budgeted cost estimates.

On average, each work created more than 2000 person-days of employment amounting to roughly 700 days of labour created per lakh rupees investment. However, there was huge disparity in the size of works as indicated by the range of land area that they influenced, from 0.18 to 100 ha. A majority of these works were undertaken with the primary objective of creating and enhancing irrigation potential. Other objectives included augmenting groundwater recharge, addressing domestic water requirements and livestock needs, fishing and pisciculture. Taken together, the 117 assets (for which detailed quantitative data on costs and benefits was calculated by us) generated annual gross value equal to their cost (see Figs. 4.7 and 4.8).

Traditional inundation canal systems (*pyne*) that serve the dual-purpose of irrigation and drainage in conjunction with embankments (*ahar*) have been prevalent in Bihar for centuries. According to Pant, these indigenous systems were used to irrigate nearly a million hectares in Bihar in 1930.

However, due to various reasons—including the abolition of zamindari and rapid development of groundwater irrigation—the area irrigated by these systems declined to half by 1997 (Pant 1998). Kumar and Chandra (2010) found in their study villages that these systems were near-completely dysfunctional before they were taken up for renovation and revival under MGNREGA.

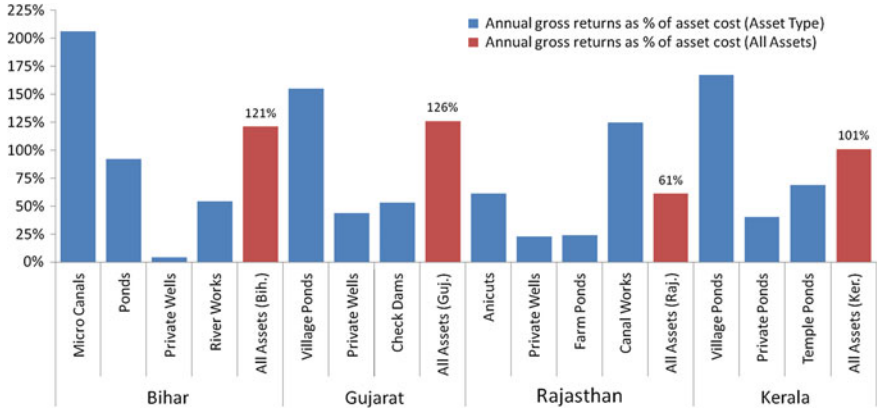

Fig. 4.7 Gross returns from one year of use as a proportion of investment made in different states. *Source* Bihar: Kumar and Chandra (2010); Gujarat: Gaur and Chandel (2010); Kerala: Nair and Sanju (2010); Rajasthan: Singh and Modi (2010)

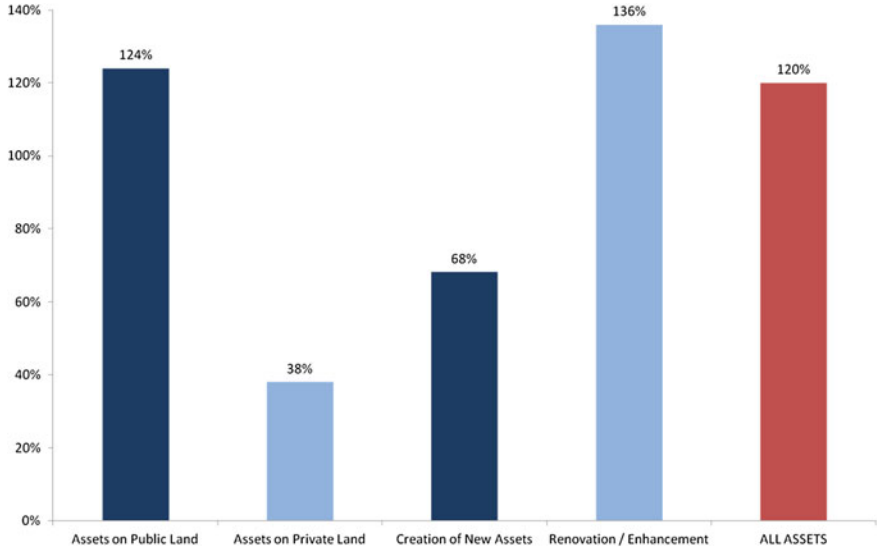

Fig. 4.8 Benefits from one year of use as a proportion of investment made in different asset-types. *Source* Bihar: Kumar and Chandra (2010); Gujarat: Gaur and Chandel (2010); Kerala: Nair and Sanju (2010); Rajasthan: Singh and Modi (2010)

The 19 case studies of MGNREGA works on micro-canal systems turned out to be the most promising across the four states in terms of gross returns. The assets required little investment in renovation and allowed farmers to provide 3–6 additional watering to their paddy crops. Bulk of the benefit to farmers came in the form

of diesel-saving. Kumar and Chandra (2010) also found that while ponds were demanded primarily for irrigation, an important share of their benefits accrued from pisciculture.

In Gujarat, Gaur and Chandel (2010) found that most of the public assets created under MGNREGA were check dams, not used directly for irrigation but undertaken to augment groundwater recharge. They also reported that while the gross returns from MGNREGA assets on private land were significantly lower, their provision had exemplary impact on the livelihoods of the beneficiaries.

The field study in Rajasthan (Singh and Modi 2010) offered an interesting comparison between MGNREGA implementation in a predominantly tribal district (Dungarpur) and a non-tribal district (Tonk). Despite a more proactive and better staffed MGNREGA administration in Dungarpur, the productivity of assets was significantly higher in Tonk. While the ratio of gross returns to MGNREGA investment in anicuts was 102 per cent in Tonk, it was a much lower 37 per cent in Dungarpur. This may partly be attributable to the physical factors (undulating terrain, poor soil quality, etc.) and partly to the fact that the farmers in Tonk were far more experienced and better connected to markets.

4.6 Lessons from Best-Performing MGNREGA Assets

The 143 best-performing MGNREGA assets were purposively selected to understand the potential of MGNREGA in meeting its dual objectives of livelihood security and rural water security. However, they do not seem to depict the general situation of MGNREGA works across the country. We offer eight propositions which will ensure than more, if not all, MGNREGA assets perform exceptionally.

4.6.1 Pick the Low Hanging Fruits First

The estimates of gross return from our case studies illustrate two important points. First, that purely in terms of returns on investment, the best bet would be enhancement, renovation or revival of existing village water bodies that may have fallen into disrepair as the socio-economic context of communities changed over time. *Pynes* in Bihar is a case in point but there might be others—cleaning of irrigation canals and channels; de-silting and deepening of tanks and ponds to enhance storage and augment groundwater recharge; de-silting of small and large irrigation reservoirs to rejuvenate their storage capacity, etc.

Second, although the annual economic returns from MGNREGA assets on private lands might be lower, when implemented well, they make significant improvements in the lives of beneficiaries—who invariably belong to the poorest households and the most marginalized communities. The feverish demand for

Kapildhara[2] wells in Madhya Pradesh also illustrates this point. The distinct advantage of implementing works on private lands is that their ownership is clearly defined; and beneficiaries either themselves work in the construction process or provide additional supervision and oversight to ensure superior quality of work.

4.6.2 Keep MGNREGA Demand-Driven

One of the concerns with MGNREGA was that its success would depend on villagers internalizing the fact that MGNREGA offers an 'entitlement' to demand work and is not a relief programme. However, we found several instances where the implementation of MGNREGA was driven not by an overwhelming demand for wage labour but by the MGNREGA administration at various levels. It did not always appear as if the administration itself understood well the difference between MGNREGA and other centrally sponsored schemes.

The *Sarpanchs* (president, *Gram Panchayat*) viewed MGNREGA as an opportunity to gain political mileage and enhance their social clout at the expense of the national government. The Block and District administration set spending targets for themselves in order for the State to take advantage of a centrally sponsored programme with near-unlimited access to funds. The MGNREGA administration at the Centre did not help either by awarding districts that managed to *generate* more days of employment, and in effect, spend more money. While this enthusiasm might have led to some high-quality assets, in several cases this also led the administration to ignore work quality and focus exclusively on employment creation.

In 2009–10, the then Gujarat Chief Minister (CM) declared his wish to undertake the construction of *boribandhs* under MGNREGA. An overzealous administration took up the wish of the CM in a mission mode and more than 250,000 *boribandhs* were constructed. Little did the administration realize that the construction of effective *boribandhs* required a thorough understanding of local stream hydrology or that it needed to be done in a small time window—when the stream flow was neither too much nor too low.

Not surprisingly, studies found that more than 85 per cent of the *boribandhs* were rendered useless in no time (Shah and Mistry 2012). Our surveys also revealed that MGNREGA assets performed best where they were most required and where the decision to undertake the works was taken by the village communities, rather than by the *Sarpanch* or the MGNREGA administration.

[2]*Kapil dhara yojana* in Madhya Pradesh was initiated with the objective of stabilizing agricultural production and improving farmers' livelihood by providing irrigation facilities including digging of new wells.

4.6.3 Recognize the Importance of Assets

A common perception under the previous UPA national government was that MGNREGA was primarily a conduit for doling out extra cash to people and that the focus on MGNREGA's non-wage benefits was often missing. Apparently, MGNREGA has an elaborate system of reporting, much of which is done near-real-time. However, none of the parameters in the management information system (MIS) seem to focus on the quality of assets, the benefits people can derive from them, or on their sustainability. Once a work is declared *complete*, the MIS stops tracking it.

Admittedly, almost in every state, we found that the local MGNREGA staff was over-burdened by the rush to initiate 'new works' or to complete the ongoing ones. Field engineers in several states reported that each of them was looking after 6–10 *Gram Panchayats*, which could easily mean more than 100 ongoing works at a time.

In Andhra Pradesh, we found engineers eagerly looking forward to vacancies being filled in the hope of easing their burden; in Madhya Pradesh, we found that MGNREGA engineers were also looking after non-MGNREGA works; and some of them 'informally trained and hired' local villagers to help them out.

They suggested that MGNREGA Mates should be given some technical training to assist them better. The MGNREGA Mates are fairly well qualified and can easily be trained into *barefoot engineers*. Doing this would not only provide some much-needed relief and assistance to the engineers; but will also train a cadre of young villagers in practical aspects of civil engineering.

Another issue is the high dropout rate of engineers and this came up repeatedly in our discussions in Madhya Pradesh. The open market offers significantly higher salaries to engineers and it is therefore, difficult for MGNREGA to retain the best ones. The field engineers candidly admitted that the quality of assets suffered due to poor supervision and lack of proper technical inputs but also described their inability to do anything about it.

Singh and Modi (2010) found that the difference in the work load of Junior Technical Assistants correlated well with difference in the quality of assets between Dungarpur and Tonk. Gaur and Chandel (2010), on the other hand, reported that a smart system of incentives in place for MGNREGA Mates in Gujarat led to healthy competition among them on who could create the best-performing assets. Shah (2009) argued that it is the non-wage benefits of MGNREGA that afford it a clear advantage over a cash transfer scheme. Conversely, if the quality of MGNREGA assets were to be consistently poor, it would end up being nothing more than a poor substitute for a cash transfer programme.

4.6.4 Fix Responsibility for Maintenance

Our surveys reported that even in the case of best-performing public assets, maintenance was an issue and the life expectancy of assets was woefully low. In Kerala, of the 23 public ponds we surveyed, only one was being maintained by the community. Villagers, including those who were directly benefiting from the assets, felt that it was the responsibility of the *Gram Panchayat* to regularly clean and maintain the ponds.

In some cases, the user-community used to carry out some kind of annual maintenance work before it was taken up under MGNREGA. Ever since, the user-community stopped the maintenance activities and expected the government or the *Gram Panchayat* to shoulder the responsibility. Likewise in Gujarat, Gaur and Chandel (2010) suggested that because the benefits from public assets were diffused over a larger group of beneficiaries, there was little interest in maintenance among individual users.

Singh and Modi (2010) noted that in Rajasthan, while communities were *vigilant* about the maintenance of public assets, they were either incapable (in Dungarpur) or unwilling (Tonk) to contribute monetarily towards asset maintenance. Likewise in Bihar, Kumar and Chandra (2010) recommended that special provisions should be made for the *Gram Panchayats* to undertake repair and maintenance works on a regular basis.

Even in Madhya Pradesh, where the implementing agencies are required to identify user groups and hand over the assets to them on completion, maintenance was an issue. The then MGNREGA Commissioner in Bhopal, Dr. Pastore suggested that it is futile to hand over assets to user groups that are identified after the works have been implemented. He suggested that the user groups should be identified before construction begins and should be involved in the planning, design, procurement and implementation of the works. Only then would they assume ownership and responsibility for the asset (Verma and Schwan 2012).

The relatively better work-supervision and maintenance of MGNREGA assets on private lands suggests that if the assets built are useful and effective. The users have clearly defined ownership, and if it is clear to them that neither MGNREGA, nor the *Gram Panchayat*, nor any other programme of the government would take up the responsibility of maintaining the assets. The users should see self-interest in proper maintenance of assets on their own land. The problem with assets on common land is that their ownership is not clearly defined and their benefits are too diffused.

There is unlikely to be any one institutional model for maintenance that would work everywhere. MGNREGA must therefore offer flexibility and actively seek out local institutional arrangements. The MGNREGA administration, on its part, should include asset quality parameters in the MIS and initiate a routine of regular inspection of works even after their construction has been completed.

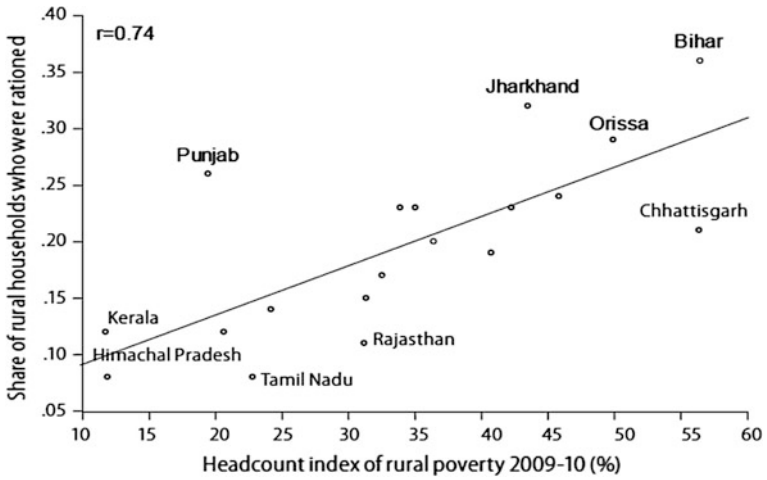

Fig. 4.9 Rural poverty and unmet demand for MGNREGA work. *Source* Dutta et al. (2012), p. 58

4.6.5 Better Equip MGNREGA Administration, Especially in Poor Areas

Through an analysis of the National Sample Survey data for 2009–10, Dutta et al. (2012; p. 57) show that '*poorer states have greater unmet demand*' for MGNREGA work (see Fig. 4.9). Thus, MGNREGA implementation becomes a function of the ability of the administration rather than of the demand, as originally envisaged.

The administration in better-off states, districts and villages tends to be better equipped in implementing MGNREGA in a supply-push mode even when the effective demand might be relatively low. Poor communities, on the other hand, are likely to be less resourceful and have less effective MGNREGA administration. They are also more likely to have less effective, less informed and less empowered *Gram Panchayats*. There is, therefore, a need to pay special attention to ensuring that MGNREGA administration at all levels is well trained and equipped.

4.6.6 Build Capacities of PRIs and Help Them Become Better Demand Systems

Among the four states where we conducted asset case studies, Kerala and Rajasthan seemed to be performing better, but for different reasons. Singh and Modi (2010) suggested that the MGNREGA awareness levels in Rajasthan were quite high and people were quite aware about the provisions and processes of MGNREGA.

In Kerala, where *Kudumbashree* is involved in MGNREGA implementation, the programme was able to reach out to women much more than anywhere else. This explains the very high participation of women in MGNREGA in Kerala. Impressions from Gujarat were mixed. While PRIs in Junagadh and Sabarkantha districts seemed to be doing quite well, their performance in tribal south Gujarat was largely disappointing.

In Narmada district, the wages offered by MGNREGA were more than twice the prevailing market rates. Tribal communities were initially quite upbeat about MGNREGA, but an indifferent block and district administration caused long delays in the works approval and wage payment processes and a poor performance in both quantity of employment generated and quality of assets; leaving the village communities feeling helpless, dejected and cynical.

4.6.7 Avoid Alienating Better-off Farmers, but not by Constraining Wage Benefits

In several states, we found that the better-off farmers viewed MGNREGA as a headache; several of them even called it a conspiracy against farmers. In several places, farmers complained about scarcity of agricultural labour, rising wages, deteriorating work ethic, labour demanding improved working conditions and better facilities, etc. They argued that just as MGNREGA was trying to help the labourers; it must also benefit the farmers—who are at the receiving end of the tightened labour markets.

In Kerala and Andhra Pradesh, there was a forceful demand for allowing MGNREGA workers to work on the private land of farmers, especially for labour intensive agricultural operations, such as paddy harvesting. In Anand (Gujarat), the labourers complained that the rich farmers were colluding with the *Gram Panchayat* and block administration to ensure that MGNREGA works are frozen during the peak agricultural season. This was also reflected in the demand by the then Agriculture Minister to freeze MGNREGA works (Tiwari 2011). Doing this would undo much of the gains that MGNREGA workers might have picked up so far.

It was observed by many that the rise in agricultural wage rates, the setting of a new wage floor, the greater bargaining power and the better working conditions—all of these would vanish if the competition between MGNREGA and agricultural labour is eliminated.

We believe that such demands from farmers stem from two sources: (1) in places where the agricultural labour market is already tight, a supply-push implementation of MGNREGA unreasonably distorts the market. If MGNREGA is allowed to retain its intended demand-pull character, much of these complaints would vanish; (2) where farmers have not experienced non-wage benefits of MGNREGA, they perceive MGNREGA only for its negative consequences.

If MGNREGA assets improve local water security; enhance connectivity to input and output markets; and improve village amenities, the entire agrarian economy would get a boost. Instead of tweaking MGNREGA to reduce its wage benefits, efforts should be made to enhance its non-wage benefits so that the better-off farmers acquire a stake in its effective implementation.

4.6.8 Get Performance Measurement Right and Plan an Exit

As discussed earlier, the current MIS of MGNREGA unintentionally creates perverse incentives for the administration to focus on spending. If we want to maximize the non-wage benefits of MGNREGA, the parameters on which MGNREGA implementation is measured will have to be carefully revised. Popular articles and news reports also see a reduction in MGNREGA spending—year on year—as a sign of deteriorating performance or a lapse on the part of the local MGNREGA administration instead of celebrating a decline in demand for minimum-wage labours a positive (see Deccan Herald 2012; ToI 2012).

MGNREGA has a huge database down to the level of each individual job card. This goldmine of data needs to be carefully analysed. If the same households and the same people keep returning to work at minimum-wage year-after-year, MGNREGA cannot be said to have fulfilled its objectives. A perpetual MGNREGA will, in all probability, be a poor one.

In the long run, the success of MGNREGA may be measurable in terms of its reduced demand. Regions and people that require MGNREGA work today should be able to improve their economic condition and enhance their access to opportunities through it and this should reduce their demand for unskilled labour employment over years. This will happen only if the assets created under MGNREGA are effectively able to enhance the profitability of agriculture by improving land productivity, providing enhanced water security, connecting villages to input and output markets and improving rural infrastructure to lift people and places out of poverty.

4.7 Conclusion

Recent discussions on the fate of MGNREGA have tended to focus on operational guidelines—labour-material ratio, wage rates, use of machines, etc.—and on the question of targeting its implementation to a few poor districts. Our field studies highlight how, in spite of all its shortcomings, MGNREGA is transforming rural India through its wage and non-wage benefits.

As labour markets tighten and become segmented, they are also becoming more appealing and equal for women. Village communities identify opportunities of finding 'work close to home', 'empowerment' of labourers and 'useful rural assets' as among the most beneficial aspects of MGNREGA while also raising concerns about deteriorating '*work ethic*' and delays in wage payments.

Although MGNREGA is designed to be self-targeting at the individual level, at the community level, it relies heavily on the capabilities of local institutions. Unless these institutions are strengthened, it is likely that the districts, regions and villages that most need the benefits of MGNREGA will remain deprived. For the rural elite, MGNREGA-induced labour scarcity and higher wages are areas of concern but where implemented well, rich farmers do recognize the value of MGNREGA assets.

Our case studies of best-performing assets highlight the potential of MGNREGA as a water security programme. Under the right conditions, the incremental gross value created with the help of these assets can surpass their costs in a little over a year. However, these conditions are rarely met. The case studies also highlight potential convergence opportunities with the ambitious *Pradhan Mantri Krishi Sinchai Yojana* (PMKSY) which promises '*harkhetkopaani*'.

Mainstreaming the creation of high-performing assets is the key to MGNREGA success. We have offered eight practical suggestions for maximizing MGNREGA's net positive impact. Broadly, our propositions reflect four principles: *prioritization*, *capacities*, *incentives* and *exit*. By '*exit*' we imply a gradual decline in demand for work under MGNREGA. We argue that focusing on non-wage benefits of MGNREGA can elevate its performance; and, in the process, build stakes for rural communities.

Doing this will require significant capacity-building investments in local institutions (PRIs, block and district administration) and creative, context-specific arrangements for ensuring sustainability of assets. There is also an urgent need to build capacities and enhance opportunities in the non-farm sector.

MGNREGA work should not and cannot be a permanent occupation for poor households. Over years, the dependence of poor households on MGNREGA and the willingness of people to work at government-prescribed minimum wages must decline. This would be a robust indicator of MGNREGA's success. This can be done by building high-performing assets that help uplift the village economy to a level of prosperity which crowds out the need for minimum-wage work.

Acknowledgements Earlier versions of this chapter were presented at a seminar in Pretoria, South Africa (Verma 2012) and at IWMI-Tata Programme's 2012 Partners' Meet in Anand, Gujarat, India (Verma and Shah 2012a, 2012b).

Annexure

(see Tables 4.5, 4.6 and 4.7)

Table 4.5 List of students who worked with IWMI in 2009–10

State	Districts	Students
Andhra Pradesh	Adilabad	Anjanayulin M., Sindhura A., Sarah S. and Pravin Y
Bihar	Nalanda	Gaurav Kumar and Pratik Gupta
Gujarat	Kutch	Manoharsinh Chauhan, Pavan Chandel, VR Patel and ZailsinhMaharaul
Jharkhand	Godda	Ahmad Fawaz and SumanAcharjee
Kerala	Palakad	Nisha Nair, Gayathri Devi, J P Sara, M. Arulmani and T R Karthik
Maharashtra	Nandurbar	NitinPai and Utsav Mishra
Orissa	Koraput	Anshuman K Gupta
Rajasthan	Dholpur	Abhishek Tiwari, Deepali, Dipin Gupta, Rajat Bhatia, Rajesh Sihag, Suyash Raj and Sunil Yadav
	Bhilwara	Karanpret Singh, Mukesh Mehta and Yash Menaria
Uttarakhand	Uttarkashi	Archit Gupta, Govindkumar Rai and Vineet Khokhar
	Bageshwar	Nitya Chanana and Priyanka Sah

Table 4.6 List of students who worked with IWMI in 2010

State	Districts	Students
Andhra Pradesh	Chittoor	Ramachandra Rani and Premkumar Loganathan
Gujarat	Narmada	Uchit Desai and Mehul Srivastava
Himachal Pradesh	Kangra	Pushpendra Sharan
Kerala	Idukki	Annu Ann Alexander and Milli Anthony
	Trivandrum	Rahul, K. and Vyas Sreenivas
Madhya Pradesh	Mandla	Abhishek Gupta, Ashish Patil, Gandharv Paliwal. Krati Vyas, Shubham Dwivedi and Rohit Bhatnagar
Maharashtra	Jalna	Manoj Prabhakar Sonawane and Shaikh Ateeque Abdul
Orissa	Mayurbhanj	Amrita Chandra and Avantika Garg
Rajasthan	Bikaner	Jaywardhen Tiwari and Shakti Singh Sekhawat
	Rajsamand	Gaurav Jain and Rahul Soni
Sikkim	Sikkim West	Ankit Saxena, Sankalp Patnaik, Shantanu and Vishnu Raghunathan

Table 4.7 List of students who worked with IWMI in 2010–11

State	Districts	Students
Bihar	Bhojpur, Nalanda and Vaishali	Anshuman Kumarand Gopal Chandra
Gujarat	Junagadh and Sabarkantha	Pavan Chandel and Pulkit Gaur
Kerala	Palaghat	Nisha Nair and Sanju S.
Rajasthan	Dungarpur and Tonk	Aparna Singh and Rashi Modi

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