

**ASSESSMENT OF TECHNICAL ASPECTS IN
IMPLEMENTATION OF MGNREGS**

- A MICRO LEVEL STUDY

Submitted in partial fulfillment of the requirements

of the degree of

M.Tech. in Technology and Development

By

Nitin A. Lokhande

(Roll No. 10335401)

Supervisor

Prof. N. C. Narayanan



Centre for Technology Alternatives for Rural Areas (CTARA)

Indian Institute of Technology, Bombay

July 2012

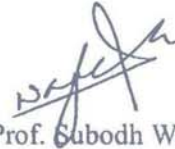
Dissertation Approval

This is to certify that the M.Tech. Dissertation report titled “ASSESSMENT OF TECHNICAL ASPECTS IN IMPLEMENTATION OF MGNREGS – A MICRO LEVEL STUDY” by Nitin A. Lokhande (Roll No. 10335401) is approved for the degree of M.Tech in Technology and Development.



Mr. Anand Kapoor

(External Examiner)



Prof. Subodh Wagle

(Internal Examiner)



Prof. N. C. Narayanan

(Guide)



Prof. Milind Sohoni

(Chairperson)

Date: 13-07-2012

Place: Mumbai

Declaration

I declare that this written submission represents my ideas in my own words and where other's ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any ideas, data, facts or sources in my submission. I understand that any violation of the above will be cause of disciplinary action by the institute and evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

Date: 13-07-2012

Place: Mumbai



Nitin A. Lokhande

(10335401)

Abstract

MGNREGS is one of the flagship government schemes of the Central government to ensure social inclusion in the current development process. The scheme, despite huge budgetary allocations and immense potential to alleviate social marginalization, is facing several constraints at the level of implementation. The suboptimal implementation is not only affecting the major goal of creation of durable assets but also affecting the quality of the environment through natural resource degradation. This study attempts a micro level investigation in three development blocks in the state of Maharashtra to bring out the problems associated with technical aspects of implementation of the scheme. The quantitative and qualitative assessment has clarified that the inadequate number and capacity of the technical personnel is affecting the execution of MGNREGS works at the Block and GP levels with a strong indication of the snow balling of deteriorating performance over the last three years. An in-depth engineering analysis of some of the works completed show that it is very inadequate without the long term goal of asset creation but just done with an immediate goal of job provision. The study presents some recommendations to mitigate the problems associated with the technical aspects in implementation of MGNREGS.

Keywords: MGNREGS, Technical Capacity Deficit, Technical Capacity Building

Table of Contents

List of Tables	iv
List of Figures	v
List of Acronyms, Abbreviation and Definitions	vi
Chapters	
1. Introduction	01
1.1 Background	01
1.2 Motivation for the study undertaken	06
1.3 Objectives	07
1.4 Rationale, Methodology and Data collection	08
1.4.1 Rationale of the study	08
1.4.2 Rationale for selection of location	11
1.4.3 Methodology	15
1.4.4 Data Collection	18
1.5 Structure of the report	21
2. Institutional Architecture of MGNREGS	22
2.1 The Act	22
2.2 The Institutional Structure	24
2.3 The Human Resource at PRI level	28
2.4 The Implementation Process	35
2.5 Important records to be maintained at Panchayat levels	38
2.6 Summary	45
3. Assessment of Technical Aspects of Implementation	46
3.1 Profile of the Blocks	46
3.1.1 Mokhada block	46
3.1.2 Jawhar block	47

3.1.3 Palghar block	47
3.2 Quantitative Analysis of Data	48
3.2.1 Technical Capacity at block and GP level	48
3.2.2 Workload evaluation and support staff	49
3.3 Qualitative Analysis of Data	52
3.3.1 Perceptions of stakeholders	52
3.3.2 Interdependence of stakeholders	56
3.3.3 Views on technical support institutes	58
3.4 Performance Analysis of Implementation of MGNREGS	60
3.4.1 Work projection and progress	60
3.4.2 Work Execution Analysis	62
3.4.3 Yearly Work Completion Rate	64
3.5 Summary	65
4. Engineering Analysis of MGNREGS Works	66
4.1 Status of MGNREGS works in 6 GPs	66
4.2 Kutcha road and roadside gutter	68
4.3 Vanrai Bandhara	73
4.4 Mazgi	76
4.5 Summary	79
5. Concluding Observations and Recommendations	80
References	83
Appendix	84
Acknowledgement	112

List of Tables

Table No.	Table	Pg no.
1.1	Technical capacities aspect	09
1.2	Technical task and performance aspect	10
1.3	Technical support system aspect	10
1.4	List of sample blocks and GPs	11
1.5	Data collection through various methods	20
2.1	Summary of Roles and Responsibilities	34
2.2	Summary of the records to be maintained and indication to reference to their format	40
3.1	Dedicated number of engineers required and available in 3 blocks	48
3.2	Technical personnel (Engineers and TA), GS and GRS available in 3 blocks	50
3.3	Perceptions of stakeholders	52
3.4	Work projection and progress	61
3.5	Work execution level analysis	63
3.6	Yearly work completion rate	64
4.1	MGNREGS works in the financial year 2011-12 in 6 GPs	67
4.2	Completed works and useful works in 6 GPs	67
4.3	Slope of land and Minimum soil depth expected	76

List of Figures

Fig. No.	Figure	Pg no.
1.1	Process flow of Implementation of MGNREGS	03
1.2	District Map of Maharashtra	13
1.3	Thane District and Blocks	13
2.1	The Institutional Structure: A Macro view	25
2.2	Institutional Arrangement at PRI level	27
2.3	MGNREGS Cell at block level	27
2.4	Human resource at PRI level	28
2.5	Snapshots of Muster roll Format	41
2.6	Snapshot of Page of MB	42
2.7	Snapshot of Estimation Sheet	43
3.1	Interdependence of stakeholders	57
4.1	Design of kutchra road and road side gutter	70
4.2	Activities and measurement of dimensions in irregular terrain	71
4.3	Shielding to kutchra road	72
4.4	Kaccha road and road side gutter constructed in Washala	72
4.5	Other Kaccha road constructed in Washala	72
4.6	Design of Vanrai Bandhara	74
4.7	Expected structure	74
4.8	Vanrai Bandhara in Washala, Makhada	75
4.9	Vanrai Bandhara in Palsunda, Makhada	75
4.10	Another Vanrai Bandhara in Palsunda, Makhada	75
4.11	Design of Mazgi	77
4.12	Mazgi in Palsunda	77
4.13	Typical sample field measured at Palsunda village	78
4.14	Typical measurement of soil bund made around the sample field	78

List of Acronyms, Abbreviations and Definition

APO	Assistant Program Officer
BDO	Block Development Officer
CEGC	Central Employment Guarantee Council
CIFE	Central Institute of Fisheries Education
CTARA	Centre for Technology Alternatives for Rural Areas
DoRD	Department of Rural Development
DPC	District Program Coordinator
GP	Gram Panchayat
GRS	Gram Rozgar Sevak
GS	Gram Sevak
JE	Junior Engineer
MB	Measurement Book
MEGA	Maharashtra Employment Guarantee Act
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MIS	Management Information System
MoRD	Ministry of Rural Development
NGO	Non Government Organisation
NREGA	National Rural Employment Guarantee Act
PO	Program Officer
PRI	Panchyati Raj Institutes
PWD	Public works Department
REGS	Rural Employment Guarantee Scheme
SEGC	State Employment Guarantee Council
SHG	Self Help Groups
TA	Technical Assistant
ZP	Zilla Parishad

Chapter 1 – Introduction

1.1 Background

“Policy-making is a monopoly area in India where technologists or academics normally do not look into. It is important to decipher policies and to empower people enabling them to ask questions. This makes policy makers responsible and answerable.”

– Girish Sant, PRAYAS in lecture on 25th anniversary of CTARA¹

In 2005, India’s parliament passed the National Rural Employment Guarantee Act (NREGA), which is the central government’s response to the constitutionally mandated right to work and a means to promote livelihood security in India’s rural areas. The Act guarantees 100 days of annual employment at statutory minimum wage rates to any rural household whose adult members are willing to do unskilled manual work. The manual work needs to create sustainable assets that promote the economic and infrastructure development of villages. Thus, the primary objectives of NREGA points to providing wage employment opportunities, creating sustainable rural livelihoods through regeneration of the natural resource base i.e. augmenting, productivity, and supporting creation of durable assets and strengthening rural governance through decentralization and processes of transparency and accountability.

Implemented in three phases beginning in 2006, from 200 districts the Act was extended to the whole of rural India in April 2008. The guarantee of 100 days of unskilled works has generated more than 1,100 crore person days of work at a total expenditure of Rs. 150,000 crores since 2006 and it has also led to the opening of about 10 crore bank/post office accounts, which is considered to be a rare feat in the history of financial inclusion of poor in the socio- economic architecture in India². NREGA, with its rights – based and demand driven framework, focus on creating ‘durable assets’ and driven by its proactive disclosures of Management Information System (MIS) data, has the potential to address the challenges of

¹ CTARA (Centre for Technology Alternatives for Rural Areas) is a centre at IIT Bombay which focuses uses the Appropriate Technology Approach while responding to the technological needs of rural area. Appropriate Technology (AT) connotes technology that is relevant to the prevailing situation while contributing to the socio-economic development whilst ensuring optimal utilization of resources and minimum detriment to environment. CTARA believes in carrying out multi-disciplinary, multi-dimensional, and grounded policy studies and research on key technology and development related sectors and issues. Further, CTARA carries development and dissemination of technologies relevant for the felt needs of rural society, in that especially the neglected sections and regions.(Visit: <http://www.ctara.iitb.ac.in>)

² Data available on NREGA website: <http://nrega.nic.in/netnrega/home.aspx>

rural unemployment, food security and regenerate the village economy in India. The Act by emphasizing lateral public accountability systems like social audits, and proactive disclosure of information has internalized the spirit of transparency and accountability enshrined in the Right to information Act. With the centrality of the Panchayati Raj Institutions³ (PRIs) in the implementation, NREGA has the potential to institutionalize people's power at the grassroots and radically transform governance in rural areas.

Broadly speaking, implementation of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), designed according to the act, has three major aspects, viz. Administrative, Financial and Technical. The government, by owning up the responsibility of providing complete fiscal resources and administrative mechanisms for implementing MGNREGS, has taken a necessary initiative. The technical aspect of implementation comprise of availability of technical personnel at all levels of PRIs, the technical tasks performed by them and associated technical support institutions for training, capacity building, monitoring and evaluation.

The process flow of implementation of MGNREGS is illustrated in Figure 1.1. As MGNREGS is demand driven scheme, the basis of initiation of implementation process is the job demand. It is evident that demand for wage employment is relatively higher in the agricultural off-season, i.e. from February to June every year. Based on the tentative demand, Gram Panchayats (GPs) must prepare an annual perspective plans. The annual perspective plans will facilitate the creation of a shelf of projects which is derived from assessment of local resources and needs; enable individual projects to be complementary to each other and build upon the results of earlier interventions to improve the productive base of the GP; and address opportunities to improve the productive natural resource base for a cluster of villages where there is strong interdependence and externalities in resource use. After preparing the annual perspective plan, the GPs submits this plan at block level for design and estimation of work identified. Due to absence of technical staff at GP level the execution of the works is carried out by GPs with support of technical staff available at block level. The monitoring and the evaluation stage involves the monitoring of the process at various levels and

³Panchayati Raj Institutions – It is a 3-tier structure (District, Block and Village level) of local governance in the rural areas created under 73rd Constitutional Amendment Act with allocation of specific subjects to them

appraisal of works done in terms of not started works, ongoing works, incomplete and complete works and number of assets created from executed works.

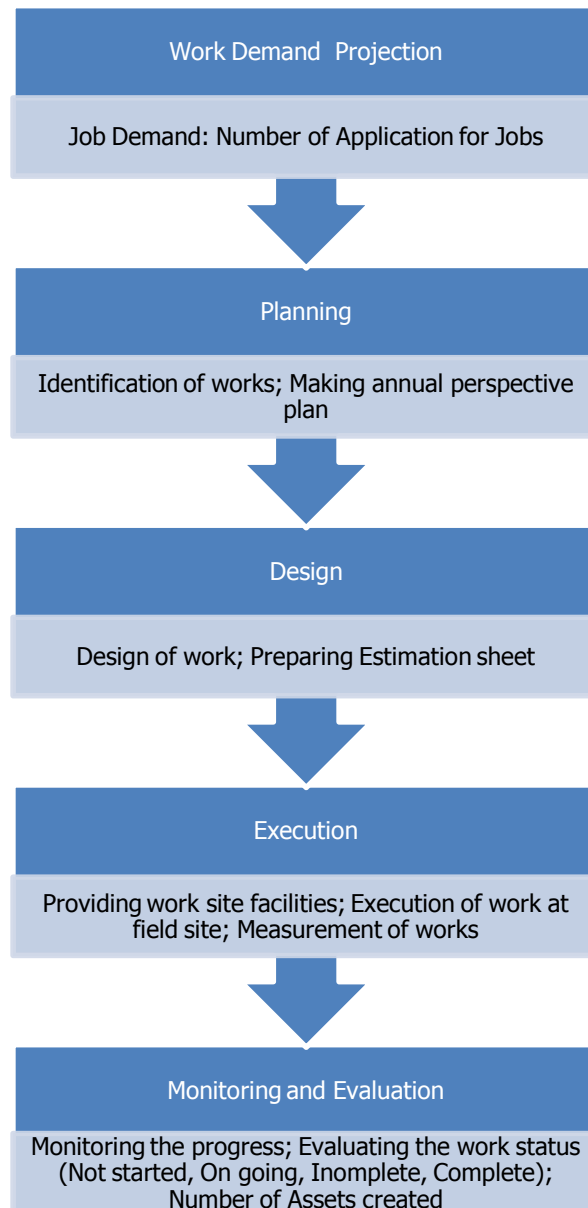


Figure 1.1: Process flow of Implementation of MGNREGS

However, there are problems associated with technical aspects of implementation of the scheme. The performance of technical tasks is key to successful implementation of MGNREGS, but at the same time is acting as the major constraints due to lack of technical capacity available with PRIs. PRIs being the implementation partners were expected to

deliver these technical tasks. The government assumed, based on its previous experiences with the PRIs in successful implementation of watershed development programs that the lean staffed PRIs structure would suffice for the purpose and specified 6 percent as administrative expenditure.(CEGC, 2010) However, the government failed to evaluate the technical capacity necessary at PRI levels to carry out the above technical tasks and thus failed to achieve the benefits of the scheme to its full potential. This failure is the outcome of inadequate appraisal of technical capacity as well as preparedness of PRIs to handle the scheme. By making GPs the main implementation agency and assigning critical roles to PRIs at the block and district levels, backed by a direct transfer of finances to districts, MGNREGS was supposed to take care of effective democratic decentralization and devolution. However, due to a variety of reasons, especially in the absence of adequate functionaries at the PRI levels the core mandate of MGNREGS is hampered.

There are a number of evidences since 2008 which shed light on the problems associated with technical capacities (i.e. technical personnel), tasks (i.e. planning, designing, execution, monitoring and evaluation of works) and support system (i.e. technical support institutes) at PRI levels for implementation of MGNREGS.⁴ Some of the evidences are listed below:

- The report of the World Bank on 14 social protection programmes, including the NREGA, carried out for the Planning Commission, makes serious remarks about the poor quality of work carried out under the MGNREGS, relating to water harvesting and conservation, and the lack of scientific design and technical supervision. According to the report, many public works are said to be “washed away the next monsoon”. The report notes that a key constraint to building high quality assets is the lack of technical support to communities as input to planning MGNREGS works (e.g., through resource mapping exercises) as well as the shortage of technical staff in designing and supervising works. A large number of works, particularly those related to water conservation, remain incomplete, either due to lack of technical support to GPs or the onset of monsoons.(Kumar, Bassi, Sivamohan, & Niranjana, 2011). In context of the poor quality of assets created; it stated that instead of creating

⁴ Here, we admit and are aware of the larger problems related with the political economy of development that hampers the design and implementation of the programme. However, this study focuses on the specific issue of technical capacity gap that hampers the programme.

productive assets, the scheme is a “make-work” scheme.(Aggarwal, Gupta, & A. Kumar, 2011)

- The Comptroller and Auditor General⁵ (CAG) report in 2008 found significant shortage of manpower resources needed to implement the Act. For example, 19 states did not appoint full time dedicated Programme Officers (POs) in 89 blocks. The existing Block Development Officers (BDOs) were appointed as POs and given the additional charge of the Act. The same number of states did not appoint Administrative Assistants in 88 blocks and 10 states did not appoint Technical Assistants (TAs) in 45 blocks. In 268 GPs covering 18 states, dedicated Gram Rozgar Sevaks (GRSs) were not appointed and 23 states had not set up the Technical Resource Support Group (TRSG) at state/district, block, and GP levels. The lack of adequate administrative and technical resource support at the District, Block and GP levels adversely affected the smooth and effective implementation of MGNREGS.(NCAER - PIF, 2009) In September 2011, Reform document⁶ dated 01-09-2011 released by Ministry of Rural Development (MoRD), also highlighted the lack of technical personnel at GP level as the major bottleneck to effective implementation.
- Scrutinizing some government letters, circulars and memos, it becomes evident that there is stress on capacity and capability building initiatives for Panchayats (District, Block and Village levels) such as Staffing, Role Clarity, GRS, Technical Manpower, Information and Communication Technology (ICT), designing Technical Manuals for works etc. (Refer Annexure 1).

Hence, in the absence of dedicated technical personnel, the administrative and technical scrutiny as well as approval of MGNREGS works is routed through the normal departmental channels burdened with existing responsibilities. This is further compounded by the failure to specify time frames for processing and approval of proposals at different levels. The inadequate training of GRSs, both formal and technical, has severely affected the

⁵ Authority that audits and assists the state and central institutions on their accounts and accountability

⁶ Available on NREGA website: http://nrega.nic.in/circular/Reforms_in_MGNREGA01092011.pdf

maintenance of basic records related to MGNREGS at the GP level and the works undertaken on the fields. Hence, due to lack of technical personnel and inadequate efforts of technical support institutes in training the available technical personnel with necessary skill set, all tasks (i.e. planning, designing, execution, monitoring and evaluation of works) under the technical aspects of implementation of scheme at PRI levels are badly affected and poorly performed.

It is not possible to realize the massive potential of the National Rural Employment Guarantee Act if we deploy the same ossified structure of implementation that has deeply institutionalized corruption, inefficiency and non-accountability into the very fabric of Indian democracy.(Ambasta, Shankar, & Shah, 2008) All these facts call for innovating new governance structures, mainstreaming existing service delivery mechanisms, and re-designing more effective means of public monitoring for successful expansion and consolidation of MGNREGS. This indeed requires a paradigm shift in the way ‘capacity building’ has been conceptualized and mainstreamed in the implementation of MGNREGS.(CEGC, 2010) It is therefore necessary to first carry out the in-depth study of the process existing for the weak aspect i.e. technical aspects of implementation of MGNREGS and then propose the recommendations to strengthen the same.

1.2 Motivation for the study undertaken

Six years have elapsed since the inception of the MGNREGS. It is thus now important to make an assessment of the scheme from various perspectives. Although it is necessary to understand as to how the scheme has affected the socio-economic and livelihood conditions of the rural people, what is vital is to assess the processes and procedures of the implementation of the MGNREGS. The success of the scheme largely depends upon the processes of its implementation. Undoubtedly, the MGNREGS has addressed many of the weaknesses of the earlier schemes through the introduction of rights-based framework, time bound access to fulfill guarantee, incentive and disincentive structures, demand based resource availability, accountability and the like. However, there are still certain pertinent issues that need our attention. As discussed earlier, there are three major aspects viz.

Administrative, Financial and Technical; in the implementation of MGNREGS. It is imperative from the prior discussions that we focus our attention to the weak aspect i.e. the technical aspects of implementation of MGNREGS. Given the present status of performance of the scheme, it is indicative that strengthening the technical aspects of implementation of MGNREGS is the need of the hour. Firstly, the primary problem associated with the technical aspects of implementation of MGNREGS is the availability of adequate number of technical personnel at PRI levels. Secondly, the capabilities of these personnel need to be developed so that they are able to undertake the responsibility (i.e. technical planning, designing, execution, monitor and evaluation of works) mandated to them. And thirdly, the technical capacities and capabilities further need to be backed by proper supporting institutions (i.e. technical support institutions), which act as decision support systems, assisting in concurrent monitoring of outcomes and better management of the works initiated under MGNREGS. The scheme with its rights-based framework and focus on creation of 'durable assets', has the potential to address the challenges of rural unemployment, food security and regenerate the village economy in India. But given the above discussed backdrop, there is thus a need to make an appraisal of the processes and procedures associated with the technical aspects of implementation of MGNREGS. This would enable us to understand and examine the institutional mechanisms under which the scheme is being implemented. The problems and prospects of MGNREGS can then be better understood and accordingly, necessary measures can be devised to make the scheme realize its set objectives.

1.3 Objectives

The objectives of the study are:

- To study the technical aspects of implementation of MGNREGS and appraise problems associated with it
- To suggest remedial actions for strengthening the technical aspects of implementation of MGNREGS

Some broad research questions arise in this context. What are the technical aspects of implementation of MGNREGS? What are the problems associated with the technical aspects

of implementation of MGNREGS? What factors are hindering the formulation of solutions to these problems? What methods do we adopt to handle the issues faced by the PRI levels in smooth implementation of the scheme and how do we ensure the strengthening of technical capacity of PRIs? Will mere strengthening the technical capacity of PRIs help MGNREGS to reach its fullest potential and lead to creation of ‘durable assets’? We will try to answer these questions through this study.

1.4 Rationale, Methodology and Data collection

1.4.1 Rationale of the study

Before discussing the methodology for the study, we will discuss rationale of study in context of the process flow of implementation of MGNREGS. What we look upon in this process of implementation of MGNREGS for our study is the technical aspect. The subject of this report therefore, deals with capacities, i.e., technical personnel required at block and GP level; capabilities of these personnel to carry out the tasks (i.e. Planning, Designing, Execution, Monitoring and Evaluation) mandated as well as the performance of the scheme considering the available capacities and support systems at national, state and district level. Hence the study is done covering three different aspects viz. technical capacity aspect, technical tasks and performance aspect and technical support system aspect. The details of the study pertaining to each aspect are tabulated in Table 1.1, 1.2 and 1.3 respectively. It is proposed that we look into above mentioned three aspects with in-depth study so as to suggest remedial actions for strengthening the technical aspects of implementation of MGNREGS.

Table 1.1: Technical capacities aspect

Objective	Level	Activities	Personnel
Estimating technical personnel required	GP	Identification of works through village council/ Gram Sabha or sub village council/ ward sabha; Prepare Annual plan; Execute all approved work; Maintain all records in registers;	Sarpanch, Village council members, Gram Sevak, Gram Rozgar Sevak
	Block	Make consolidated statements of annual plan; Technical Estimates/ Sanction/ Approval of works; Technical Support in Execution of work (i.e. Initiation of work, measurements and calculation of quantum of work done) at GP level; Update MIS;	Program Officer, Assistant Program Officer, Line department Engineers, Technical Assistants, Accountant, Computer operators
	District	Responsible for overall Coordination and implementation of scheme in district; Make 5 years district perspective plans; Prepare block wise SoP(Shelf of Project); Indicate the time frame, person days of labour to be generated and full cost; Assess technical, feasibility, cost efficiency, monitor and evaluate;	District Program Coordinator, Line department Engineers

Table 1.2: Technical task and performance aspect

Objectives	Level	Activities	Questions
Judging the capabilities of personnel for performing the tasks in implementation process	GP	Planning and Execution	Who analyze the job demand? How works are identified? How is shelf of projects decided? What steps are taken to prepare annual perspective plan? How execution of the approved work is carried out? How worksite is managed and quality of work ensured? How are daily records maintained and updated?
	Block	Design, Execution	Who prepares design for works? What are the components of design and estimation sheet? How measurement of works is done and how the work is quantified? Is MIS updated regularly?
	District	Design, Monitoring and Evaluation	Are the completed works monitored for sustenance? Are inputs from social audit
Current Performance of MGNREGS considering the available technical personnel	All	Implementation process	Work projection, Progress and Execution level Analysis, Yearly work completion rate

Table 1.3: Technical support systems aspect

Objectives	Activities	Institutes
Technical support institutions for capacity building	Awareness generation, Technical training and capacity building	National, state and district levels: NIRDs, SIRDs, NGOs, local training institutes

1.4.2 Rationale for Selection of location

This study is based on information gathered through an in-depth field work in Maharashtra in the months of March, April, May and June 2012. A three stage sampling method was employed to study the various aspects related to the technical part of the system for implementation of MGNREGS. In the first stage, Thane district is selected for the study based on its average performance status as observed from the secondary data available in MIS. In the second stage, three blocks viz. Mokhada, Jawhar and Palghar from Thane district are selected for the study based on consultation from field experts and MGNREGS project coordinator of Aroehan, a Non-Government Organization (NGO). In the third stage, eleven GPs from the sample blocks are selected for gaining insight of the implementation process at lowest level. The GPs are listed in Table 1.4 below:

Table 1.4: List of Sample Block and GPs

S.No.	Sample Block	Sample GPs
1	Mokhada	Shivali, Gomghar, Palsunda-Saturli, Udhale-Vadpada, Chas, Vashala
2	Jawhar	Shiroshi, Kasatwadi
3	Palghar	Boisar, Pasthal-Salgaon, Kurgaon

The detailed justification for the selection of the sample district, blocks and GPs is explained now.

1.4.2.1 Selection of State: Maharashtra

The field study was carried out in the state of Maharashtra. The basic rationale for selecting Maharashtra state was, firstly, it is the first state to design the employment guarantee scheme in India. The State Government enacted the Maharashtra Employment Guarantee Act (MEGA) in 1977 and it was brought into force on 26 January 1979. (Shah & Mehta, 2008). The MEGA became the baseline for enactment of NREGA in 2005. The state of Maharashtra has about 30 years of experience in implementation of the employment guarantee scheme. But it has still performed poorly with respect to other states that were recently exposed to

such employment guarantee schemes. A NCAER-PIF¹¹ study conducted in 2009 on evaluating performance of NREGA in 21 states has ranked Maharashtra 18th. (NCAER - PIF, 2009). The second reason for selection of state of Maharashtra for study is the availability of facilitator Non-Government Organization (NGO) viz. Aroehan¹², which has extensively worked on problems of MGNREGS in north-west tribal blocks of Maharashtra. The knowledge of the native language is my third reason for the selection of the state.

1.4.2.2 Selection of District: Thane

Though, Maharashtra is one of the poor performing states, not all districts in the state are performing poorly. Thane belongs to good performing district with regards to the coverage and distribution of job cards, employment demanded and generated, wage payment through bank and post office, utilization of funds and accountability and transparency. (Lokhande, 2011) The Thane district of Maharashtra has been brought under NREGA in Phase-II¹³, which commenced from 1st April, 2007. The Administrative division for Thane is Konkan division and the total population of Thane is 11,054,131 as per the 2011 census¹⁴. Some of the Talukas¹⁵ of the district are predominantly tribal. The percentage utilization of fund¹⁶ under NREGA in Thane for financial year 2011-12 was 84.21 % which is quite appreciable. Thane district is only 30 km. away from Mumbai cosmopolitan city, comprising urban, suburban and rural areas with narrow coastal belt and interior hilly region. The district is densely populated. Socio-economic status is varying from urban civilized to poor rural tribal areas. Consequently, great disparity in socio-economic status exists, which varies from better to poor socio-economic status. Though there are 5 urban Talukas, Thane district is mainly considered as the tribal district. There are 15 Talukas in the district, out of which 7 Talukas viz. Jawahar, Mokhada, Vikramgad, Wada, Shahpur, Dhanu and Talasari are tribal areas while 4 Talukas viz Vasai, Palghar, Bhiwandi and Murbad are considered as partly tribal areas.

¹¹ NCAER stands for National Council of Applied Economics Research and PIF stands for Public Interest Foundation

¹² Aroehan is NGO based in Mokhada and has worked extensively on malnutrition issues, unemployment, migration and MGNREGS in the region

¹³ Available on NREGA website: http://nrega.nic.in/MNREGA_Dist.pdf

¹⁴ http://en.wikipedia.org/wiki/Thane_District

¹⁵ Taluka means block

¹⁶ Available on NREGA website: http://164.100.112.66/netnrega/writereaddata/citizen_out/fundstreportMtemp_Out18_local_1112_.html

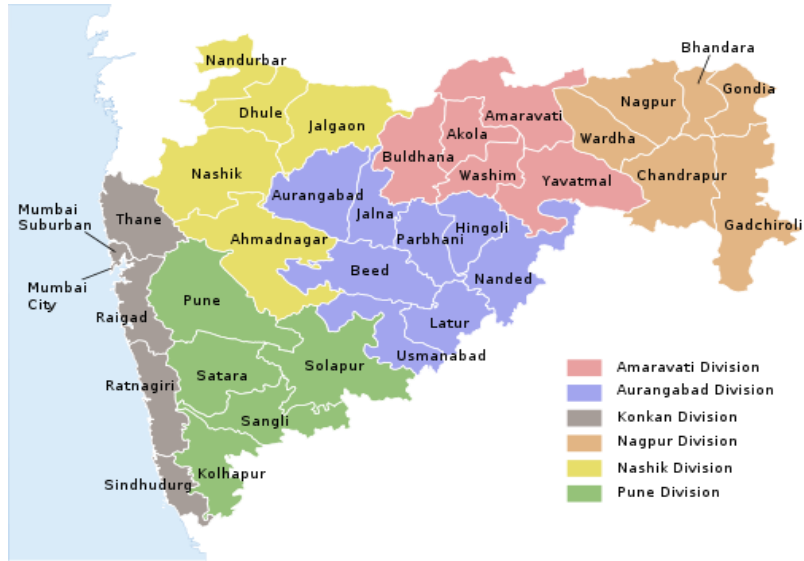


Figure 1.2: District Map of Maharashtra
 (Source: http://en.wikipedia.org/wiki/List_of_districts_of_Maharashtra)



Figure 1.3: Thane District and Blocks (Source: (CIFE, 2009))

Rest of Talukas like Thane, Kalyan, Ulhasnagar and Ambernath are considered as urbanized Talukas. Thane and Ulhasnagar Talukas are having no Panchayat Blocks and are considered fully urbanized Talukas. Hence out of 15 Talukas 13 Panchayat blocks are in existence for implementation of NREGA. The coastal Talukas comprise of Vasai, Palghar, Dhanu and Talasari while Bhiwandi, Wada, Jawahar, Vikramghad, Mokhada, Shahpur and Murbad fall under remote rural Talukas. The main occupation of Thane district is agriculture. The main cropping season is Kharif and the major crop is paddy. Other crops like Nagali, Varai, Oil seeds and pulses are also cultivated. The average rainfall in the district is about 2567 mm affecting yield of paddy and other crops. Rabi season crops are taken on very small area on residual soil moisture or where irrigation facilities are available. Due to this situation from December to May, there is demand from rural tribal Talukas for employment in Employment Guarantee Scheme (EGS). Some labours are also engaged in city construction works and on brick kilns for better wages. Demand for employment is more during the months of February to May. (CIFE, 2009)

1.4.2.3 Selection of Blocks (Mokhada, Jawhar, Palghar) and GPs

Out of 13 Panchayat Blocks which are in existence for implementation of NREGA, I selected Mokhada, Jawhar and Palghar panchayat blocks for study for the following reasons. The Mokhada and Jawhar block have tribal population of more than 90%, while the Palghar block is having less than 60% tribal population.(CIFE, 2009) Aroehan have worked extensively in Mokhada and Jawhar block on MGNREGS issues. The number of GPs in Mokhada and Jawhar are 28 and 50 respectively. Palghar is a huge block with 133 GPs in it. With these key attributes and inputs received during the discussion with experts¹⁷, the blocks were selected. The GPs in the selected blocks were selected based on various factors such as in coordination with Aroehan facilitators, availability of respondents and key informants, GPs considered for social audit, suggestions from field experts etc.

¹⁷ Discussion with Mrs. Seema Kakade, Prayas on 26-01-2012 (Refer Annexure 2)

1.4.3 Methodology

In order to realize the objectives of the study and keeping in mind the three aspects discussed in our rationale of the study, we adopt following methodology.

1.4.3.1 Literature review

A detailed literature review of the following documents is done:

- NREGA Act 2005¹⁸
- Official Operational Guideline and Manuals¹⁹
- Official government letters, circulars and memos
- Relevant reports and published papers
- Books on Panchyati Raj Institutes and Social Transfer programs

The literature review has prepared me with a thorough theoretical grounding of the ideal framework proposed for the implementation of MGNREGS, has given me insights of the identified problems associated with it and initiatives taken to tackle the identified problems. It basically has built my motivation and has channelized my efforts to focus on technical aspects associated with the implementation of MGNREGS.

1.4.3.2 Secondary data analysis available in public sphere

The secondary data in public sphere comprise of MIS data and official data from PRIs. The secondary data from PRIs offices revealed the available technical personnel at PRI levels. The MIS data was thoroughly scrutinized for estimating the works undertaken, demand projection analysis, work execution analysis, and yearly work completion rate for the sample district and blocks.

¹⁸ Available on NREGA website: <http://nrega.nic.in/rajaswa.pdf>

¹⁹ Available on NREGA website: <http://nrega.nic.in/guidelines.htm>

1.4.3.3 Interviews

Expert interviews, Semi-structured interview and Telephonic interviews were conducted with officials at various levels of PRI.

➤ Panchayat Samiti Offices

Interviews with Block Development Officers (BDOs)

A meeting with respective BDOs of selected blocks was arranged and discussion related to process of implementation of MGNREGS works. Their views and perspective were noted.

Interviews with Engineers from line departments

Few interviews could be arranged with engineers available from line departments regarding their role and responsibilities related of MGNREGS, work load, their field visiting schedule, and how they manage works in many GPs allotted to them. Some valuable suggestions were asked from them regarding the technical capacity building strategy at block and GP level.

➤ MGNREGS Cell in Panchayat Samiti Offices

Interviews with Assistant Program Officers (APOs)

APOs are responsible for managing MGNREGS activities in the block. All documents (Eg. Muster rolls, Measurement Books, various registers etc.) from all GPs under his block reach his office for evaluation as well as data entry into Management Information System (MIS). APO reports to BDO and hence is key informant in implementation process. APO could provide me with the list of available engineers and number GPs allotted to them. He also was a source of information related to GRS in each village. We could get a list of GRSs with name, telephone numbers and GP for which he is appointed.

Interviews with Technical Assistants (TAs)

Meeting with TAs was an important exercise as they assist Engineers from line department in the measurement of works, measurement calculation and visits to worksites. Interaction with TAs was to reveal the training needs for technical capacity building.

Interviews with Computer Operators

This discussion could highlight the problems faced by computer operators while digitizing the muster rolls, measurement book and other data in MIS.

➤ **Gram Panchayat Offices**

Interviews with Sarpanch

Sarpanch, the head of GP is key personnel in preparing the annual perspective plan for the GP. From resource mapping, analyzing the job demands, identification of works till ensuring the smooth functioning of implementation process, his role is critical. His duty is to ensure that the GP follows the development perspective of the scheme.

Interviews with Gram Sevaks (GS)

This was necessary to understand the process followed at GP level in implementation of MGNREGS as well as the maintenance of MGNREGS records in the office. The discussion also provided insight of the problems faced by GP officials at local level. Also GS pointed out that key person at GP level for carrying out the task of implementation of MGNREGS is GRS, and because of GRS's inadequate know-how and also inadequate/no training, GRS's tasks are performed by him which is added burden to his routine tasks.

Telephonic Interviews with GRSs

In order to bring in necessary recommendations for technical training of GRSs and preparing them for performing their task with clarity and confidence, it is compulsory

that we have adequate background of them. For the very reason, and also for the reason of difficulty of meeting many GRSs in the block, a telephonic interview with 17 GRSs from Mokhada and 12 GRSs from Jawhar was conducted and responses were noted down. The data collected comprise of their name, age, marital status, education qualification, working as GRS since, other works for earning, training provided, works presently in hand and any other remarks they want to state.

1.4.3.4 Social Audit

A social audit was scheduled from 3rd May 2012 to 10th May 2012 in Mokhada block for 6 GPs viz. Shivali, Gomghar, Palsunda-Saturli, Udhale-Vadpada, Chas, and Vashala. Aroehan was the key agency to conduct the audit. With Aroehan, we took part in analysis of Technical aspects of MGNREGS for social audit and attended the social audit. This activity has helped me understand, in details, the main documents of importance i.e. Muster roll and Measurement Book (MB) related to MGNREGS, on the basis of which the wage calculation is done. The exercise helped in identifying various flaws in MB recordings. As well as engineering analysis of works could be done based on the work sites visits in assistance with the field coordinators from Aroehan. This activity was to practically visit and see the works carried out under MGNREGS. The measurement of some works and assessment of the quality of works was possible based on this exercise. It had provided insights that how the system is flawed in its basic assumptions in carrying out the technical task of execution of works under MGNREGS i.e. from the identification of site till the commissioning of work. This cost of this basic flaw, is too huge, and is paid by environment in terms of degradation and loss of its rich natural resources.

1.4.4 Data Collection

Table 1.5 tabulates the data collection strategy and purpose of the collected data with respect to each method adopted for carrying out the study. As discussed earlier, the study relies on quantitative and qualitative analysis of collected data as well as engineering analysis of the works. At all levels of PRIs, the information regarding MGNREGS was collected from multiple sources and stakeholders. In this respect, detailed information regarding the

functioning of MGNREGS was collected in different modules. They were awareness about MGNREGS, procedures of planning and design of MGNREGS work, execution of the work, number of approved work, ongoing work and completed work in the current financial year, training regarding MGNREGS, monitoring of work and social audits, constraints faced, suggestions if any, etc. Similarly, interviews were conducted to record observations of the stakeholders on the facts regarding the records, cooperation from the functionaries and their comments and feedbacks, etc. In addition, help from facilitators was seek to make a transect walk at the MGNREGS work sites to assess the quality and usefulness of the works. Hence the study comprise of quantitative analysis, qualitative analysis of data and engineering analysis of works to present the weakness in the technical part of the implementation process.

Table 1.5: Data collection through various methods

Methods	Block (GPs)	Respondents (Number)	Purpose
Secondary Data Analysis (MIS and Official Documents)	All	Data available in public sphere i.e. MGNREGS website – web enabled MIS Official document from panchayat samitis and GPs	Quantitative data analysis, Demand projection, Work progress, work execution, yearly completion rate Initiatives by government authorities to improve the technical part of implementation process
Expert and Semi-structured	Mokhada, Jawhar (Shiroshi, Kasatwadi), Palghar (Boisar, Pasthal-Salgaon, Kurgaon)	BDO(1) ; Line Department Engineers(4); APO(4); TA(2); Computer Operator(1); Sarpanch(1) ; GS(3) ; GRS(1);	Qualitative data collection, perceptions, perspectives, know-how, technical support and training needs, problems faced, issues with process, recommendations
Telephonic	Mokhada (Khoch, Shivali, Khodala, Chas, Dolhara, Hirve, Morhanda, Vashala, Sakhari, Aase, Mokhada, Suryamaal, Dandhval, Beriste) Jawhar (Aapatale, Borale, Chambharshet, Dhanoshi, Hiradpada, Kogda, Kortad, khadkhad, Chouk, Shiroshi, Degacnhi-met)	GRS (26)	Awareness of entitlement, Role and responsibilities clarity, selection process, technical support expected, work site management issues, grievances,
Social Audit	Mokhada (Shivali, Gomghar, Palsunda-Saturli, Udhale-Vadpada, Chas, Vashala)	Attended by more than 100 people, with officials – Tehsildar, BDO, Engineers, Academicians	Assessment of implementation of scheme, worksite survey, evaluation of assets, problems of job seekers
Work site visits	Mokhada (Vashala, Palsunda, Chas)		Primary assessment of work (Engineering analysis of works), Measurement of works, feasibility of works

1.5 Structure of the report

Chapter 2 helps us understand the act, its institutional structure, the personnel associated and the implementation process. It also briefs us on important records related to MGNREGS to be maintained at panchayat levels. Before we proceed to assessment of technical aspects of implementation of MGNREGS, the chapter prepares us with the basic grounding in general governance framework of implementation of the scheme. The assessment of technical aspect of implementation of MGNREGS is done in Chapter 3. The assessment is based upon the quantitative, qualitative and secondary data analysis in context of the rationale of the study discussed in chapter 1. Chapter 4 presents the engineering analysis of the MGNREGS works and briefly describes the structure and problems associated with construction. The concluding observations emerging from the study and the recommendations are presented in Chapter 5.

Chapter 2 – Institutional Architecture of MGNREGS

This chapter introduces us to the act, the institutional arrangement for implementation of MGNREGS, the personnel associated, the implementation process and the important records related to MGNREGS to be maintained at panchayat levels. The chapter explains the above mentioned topics with illustrative block diagrams. Before we step into the technical aspects associated with MGNREGS implementation, it is necessary that we understand the general governance framework of MGNREGS.

2.1 The Act

The National Rural Employment Guarantee Act 2005 was published in “The Gazette of India” on September 7th, 2005. The act comprise of 6 chapters and 2 schedules. Starting with preliminary in chapter 1 which defines several terms used in the context of the act, the document, in subsequent chapter 2 and 3, makes us understand the Guarantee of rural employment to the households, instructs states to make scheme based on the act, define conditions for providing guaranteed employment, wage rate and unemployment allowance. Chapter 4 in the act focus our attention to the administrative structure for implementation and monitoring of the schemes designed under this act. It dictates the formation of councils at both central as well as State level with instructions for its functions and duties. Section 13 in chapter 4 of the act, defines the 3-tier Panchayat Raj Institutes as the principal authorities for planning and implementation of the schemes based upon this act. Subsequent sections 14 and 15 of chapter 4 describe the appointment of personnel at District and Block level responsible for implementation of the scheme. Finally in section 16 of chapter 4, the act comes to the lowest level of 3-tier Panchayat Raj Institutes - the Gram Panchayat. It envisages Gram panchayat’s responsibilities and stresses on conducting regular social audit for monitoring of work under scheme. Chapter 5 in the act details the establishment of National and State Employment Guarantee funds and funding pattern. It also brief on transparency, accountability and audit of accounts. The final chapter 6 in the act sums up miscellaneous rules for non compliance, power to delegate, power of central government to give directions, overriding effect of act, power to amend schedule, protection of action taken in good faith, power of central government and State government to make rules, laying of rules and schemes and power to remove difficulties.

Schedule 1 lists the minimum features of a rural employment guarantee scheme and Schedule 2 lists the conditions for guaranteed rural employment under a scheme and minimum entitlement of laborers.

Adhering to the rules specified by the above described act, the states are suppose to design the Rural Employment Guarantee Schemes (REGS) according the local conditions of their own with 3-tier PRI being the principal authority for planning and implementation. But it is observed that states were unsuccessful in gauging the capacity of 3 - tier PRI to handle the scheme as well as the technicality involved in the carrying out the works detailed in the schedules and hence faced difficulties in implementation of the act.

This is evident from the fact that the committee for revision of NREGA operational guideline has inflated the chapter on capacity building and awareness generation in their report released on 31-03-2012³¹. The chapter on capacity building which was naïve in original operational guideline now is in depth details with following sub sections:

- Training Arrangements
- Network of Capacity Building Institutes
- Trainees, their trainers and suggested training modules
 - Course I: Suggested training module for District Program Coordinators (DPCs) and Additional DPCs
 - Course II: Suggested training module for Program Officers (POs) and Assistant POs
 - Course III: Possible course on watershed related works under MGNREGS for Junior Engineers (JEs) and Technical Assistants (TAs)
 - Course IV: Suggested training module for GRS
- Appendix 5.1 lists the institutions for empanelment as National/State level training resource agencies

This chapter on capacity building in the revised operational guideline would be of particular help to us in developing the framework for capacity building of GRSs. Let us now focus our attention on the institutional structure for MGNREGS implementation.

³¹ Available on NREGA website: http://nrega.nic.in/circular/Report_Committee_Revision_guidelines.pdf

2.2 The Institutional Structure

Figure 2.1 depicts the macro view of the institutional structure for implementation of MGNREGS. The implementation of MGNREGS involves institutions at the central government and state level, and at all 3- tiers of local government in India, which includes the zilla panchayat at the district level, the taluka panchayat at the block level, and the gram panchayat at the village level. The most important agency at the central government is the Ministry of Rural Development (MoRD) and the ministry-founded Central Employment Guarantee Council (CEGC). The ministry is responsible for ensuring the adequate and timely delivery of resources to the states and for reviewing, monitoring, and evaluating the use of these resources, as well as MGNREGS processes and outcomes. The CEGC advises the central government on MGNREGS-related matters and monitors and evaluates the implementation of the Act. The council is mandated to prepare annual reports on the implementation of MGNREGS and submit these to the parliament.

The pivotal institution at the state level is the state government and Department of Rural Development (DoRD), which is required to formulate a Rural Employment Guarantee Scheme (REGS) that conforms to the minimum features specified under the Act. In addition, the state government must constitute the State Employment Guarantee Council (SEGC), whose main responsibility is to advise the state government on REGS-related matters and to monitor and evaluate the implementation of the Act. Finally, the state government is responsible for ensuring the adequate and timely release of the state share of the REGS budget and facilitates administrative, financial, and technical support for all implementing bodies at the zilla (district), taluka (block), and gram (village) panchayat level. Since NREGA foresees a decentralized implementation, the principal authorities for the implementation of the REGS are the local government (panchayat) institutions at the district, block, and village level. The technical support for MGNREGS implementation is provided by the Engineers (Section, Assistant and Junior) of line departments. The line departments comprise of Agriculture, Irrigation, Minor Irrigation, PWD, Forest, Social Forestry, Water Supply departments. Other stakeholder institutes involved in implementation of MGNREGS are banks, post offices, centrally and state sponsored training and support institutes, NGOs, SFGs, and Academic Institutes.

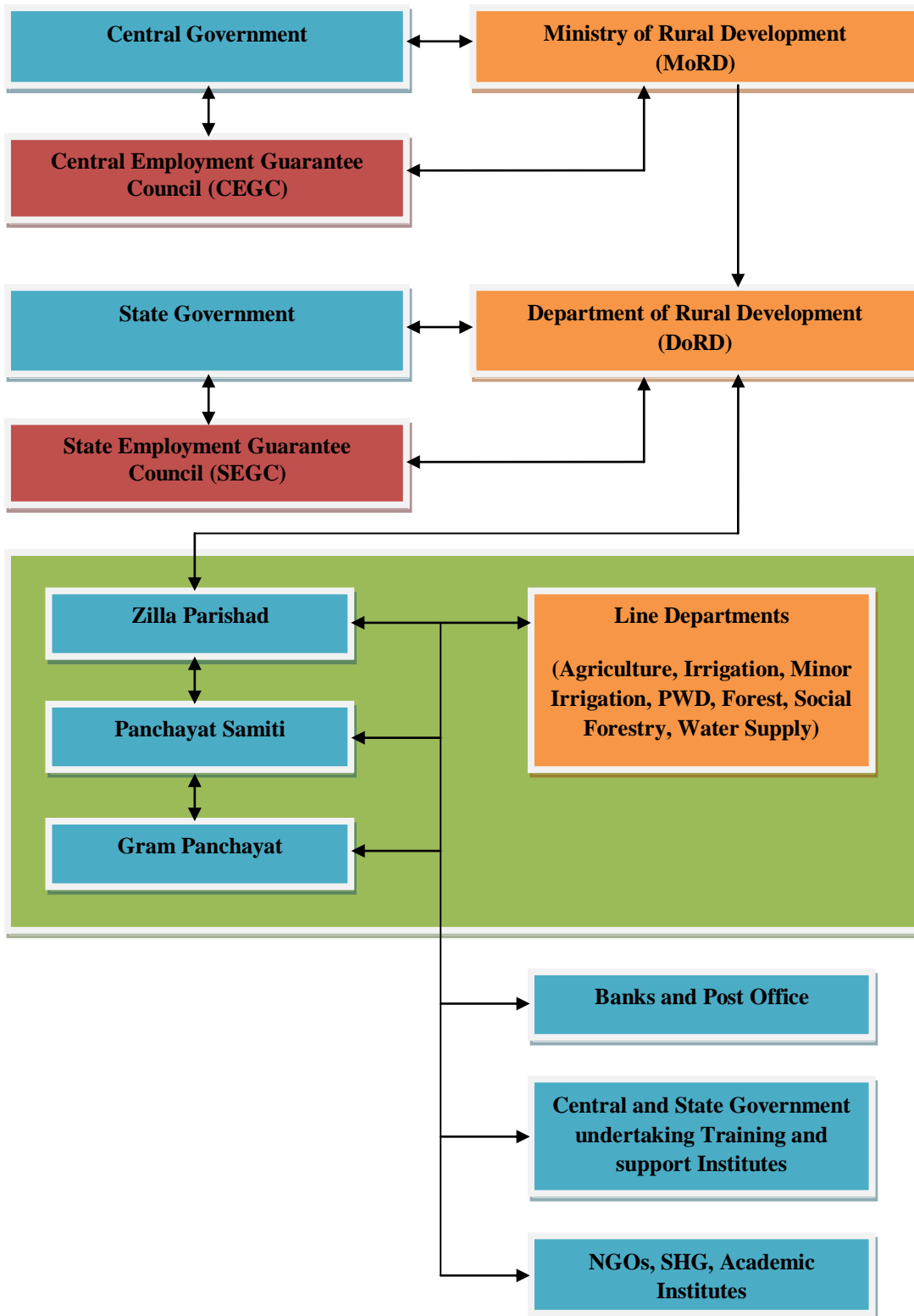


Figure 2.1: The Institutional Structure: A Macro view

Figure 2.2 depicts the institutional structure at PRI level. Gram Panchayats are central to the implementation of MGNREGS at the grassroots. The MGNREGS envisages that at least 50% of the total works (i.e. funds allocated) are to be executed by the Gram Panchayats. Remaining 50% jobs may be executed by other agencies such as the higher tier of panchayats, government line departments or voluntary organizations. To fulfill this requirement, two separate MGNREGS cells are established at Panchayat Samiti office. One cell (MGNREGS cell A as shown in Figure 2.2) under the control of BDO office managing GP undertaken works and the other cell (MGNREGS cell B as shown in Figure 2.2) under the control of Tehsil office managing line department undertaken works.

Figure 2.3 shows the structure of a typical MGNREGS cell. The APO office manages three sections viz. Computer, Accounts and Technical. The MGNREGS cell is heavily backed by inverters as power problems persist in rural areas. The primary task of the computer section is to feed the data from Muster rolls, MB and various registers into MIS. Prior to feeding the MIS, the records are scrutinized and checked by the Account section as well as Technical section. The accounts section verifies the amount entries into Muster rolls with respect to MB. The technical section verifies the measurements calculations and wage calculations on the MB.

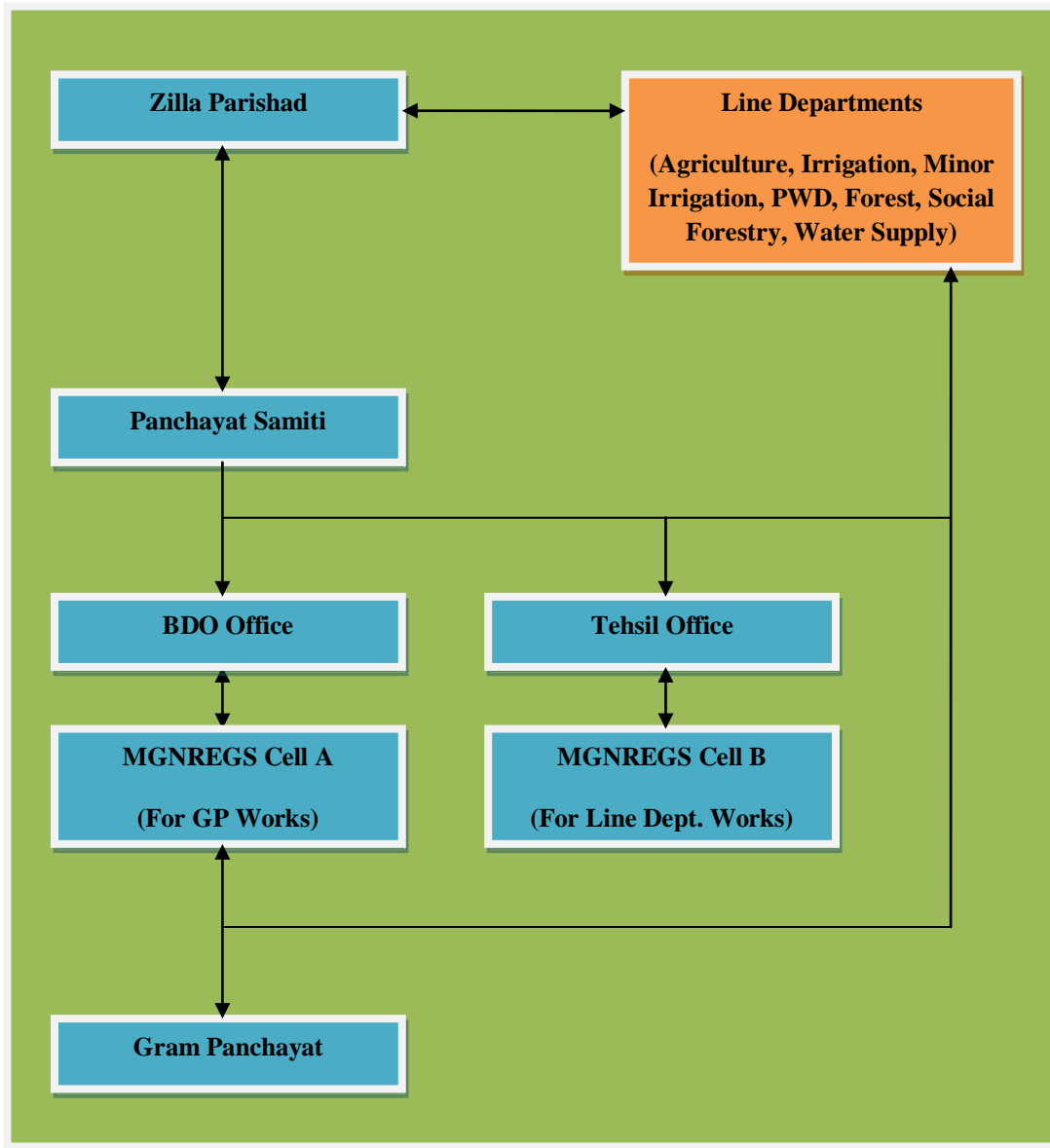


Figure 2.2: Institutional Arrangement at PRI level

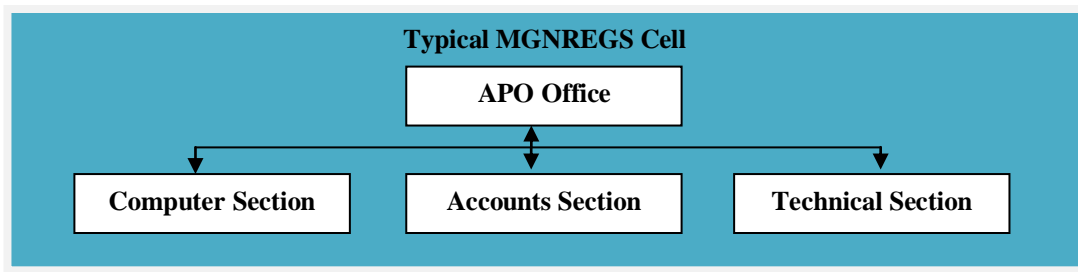


Figure 2.3: MGNREGS Cell at the Block Level

2.3 The Personnel at PRI level

The key success of MGNREGS is in provision of requisite personnel at all panchayat levels. The act makes it mandatory for State Governments to put in place the District Programme Coordinator and Programme Officer, along with staff and technical support as may be necessary for the effective implementation of the scheme. In this section, we would study the roles and responsibilities of key personnel at various panchayat levels. Figure 2.4 depicts the personnel within PRI frame for implementation of the act.

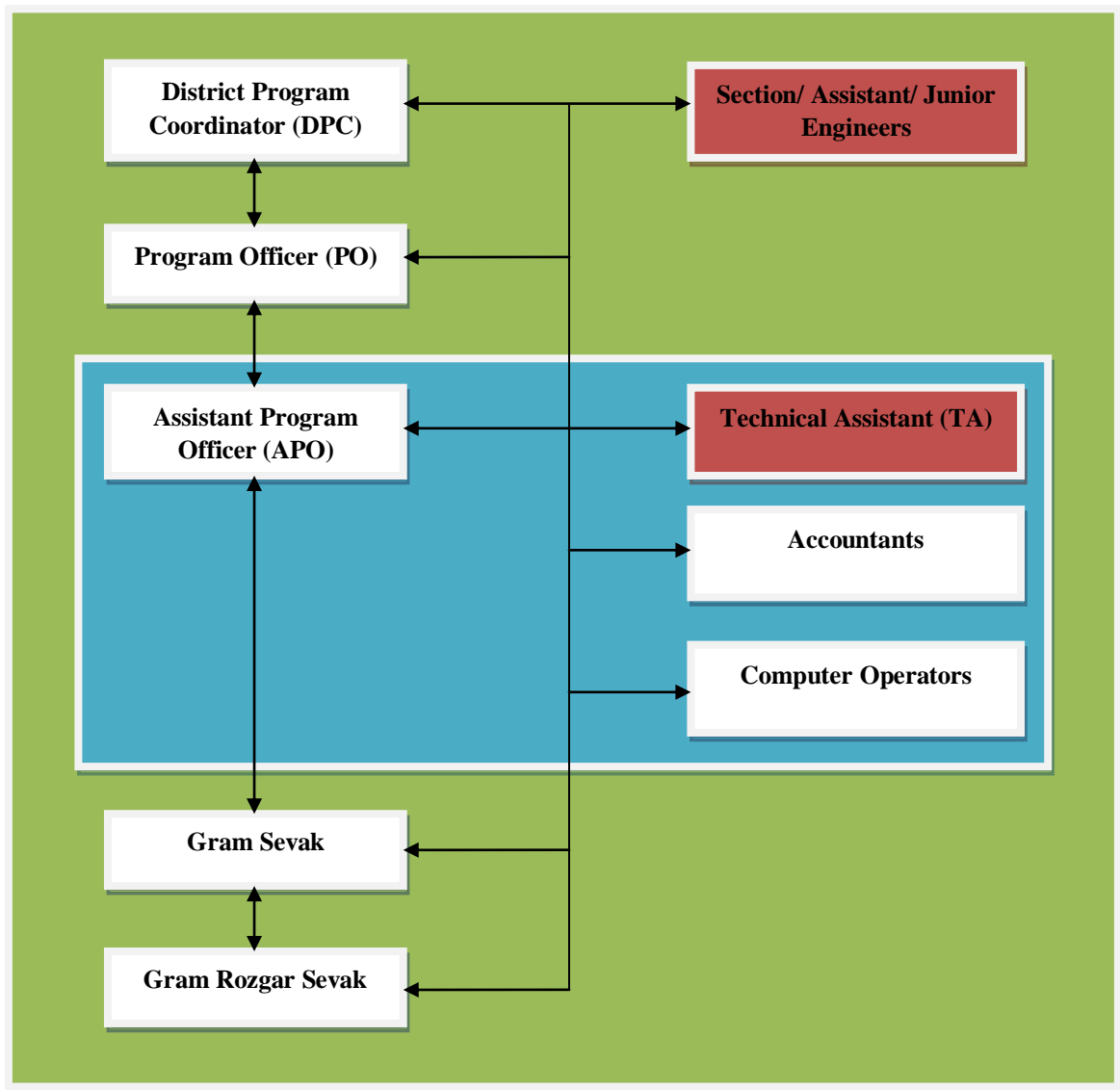


Figure 2.4: Personnel at the PRI Level

2.3.1 District Programme Coordinator (DPC)

The State Government designates a District Programme Coordinator, who can be either the Chief Executive Officer of the District Panchayat, or the District Collector, or any other District-level officer of appropriate rank. The overall responsibility for ensuring that the Scheme is implemented according to the Act is of the District Programme Coordinator (DPC).

The role and responsibilities of DPC are as follows:

- assist the District Panchayat in discharging its functions under the scheme
- prepare in the month of December every year a District Labour Budget for the next financial year containing the details of anticipated demand for unskilled manual work in the District and the consolidated shelf of projects for engagement of labourers and submit it to the District Panchayat for onward submission to the State Government
- accord timely technical and administrative sanction to shelf of projects
- ensure that projects added at block and district level are presented again for ratification and fixing priority by concerned Gram Sabha(s) before administrative approval is accorded to them
- ensure timely release and utilization of funds
- ensure wage-seekers are provided work as per their entitlements
- review, monitor and supervise the performance of the Programme Officers
- conduct and cause to be conducted periodic inspection of the works in progress and verification of muster rolls
- appoint Project Implementation Agencies (PIAs) throughout the district, keeping in mind that at least 50% PIAs need to be Gram Panchayats
- carry out responsibilities related to grievance redressal
- coordinate an IEC campaign for Mahatma Gandhi NREGA within the district
- develop annual plans for training and capacity building of various stakeholders within the district
- submit Monthly Progress Reports to the State Government

The District Programme Coordinators and staff under them are held responsible for not carrying out their responsibilities and will be liable for action under the provisions of Rule 25 of the Act.

2.3.2 Programme Officer (PO) and Assistant Program Officer (APO)

The Programme Officer is the overall in-charge of all MGNREGS works in the Block. The Programme Officer can be taken on deputation basis or recruited afresh. The Programme Officer is not below the rank of the Block Development Officer. In case of absence of such exclusive officer, the BDO can be the PO and an Assistant PO, exclusively for MGNREGS, assisting the BDO is deployed, on contractual basis or otherwise. The Programme Officer reports to DPC and Additional DPC of the district.

The role and responsibilities of PO/APO are as follows:

- provide wage employment to all the households who make a demand for unskilled manual work
- ensure that the rights and entitlements detailed out in the Act such as issue of Job cards, providing 100 days of work, weekly payments, work site facilities, medical and *ex gratia* related rights etc are delivered to wage seekers
- ensure the payment of unemployment allowance as per the provisions of the Act after due enquiry into the evidences leading to such payment
- prepare the Annual Labour Budget and maintain sufficient shelf of projects to match the labour demand
- assist the Block Panchayat in discharging its functions under the scheme
- receive GP plans, scrutinize and consolidate the plans
- ensure regular social audits and take follow up actions on findings / recommendations of Social Audit
- liaison between the GPs and the Block as also between Block and District for all purposes of correspondence and communication
- monitor and review implementation of the scheme

- inspect works and worksites at regular intervals and ensure that all workers have access to the scheme
- ensure timely payment and fair payment of wages to all labourers
- ensure transparency in implementation of the Scheme by strictly following provisions and the Right to Information Act
- collect Complaints/ grievances and redress the same

2.3.3 Engineer

The line department engineers (Section, Assistant and Junior) act as technical support at panchayat levels for implementation of MGNREGS. Since there is limitation on available number of engineers in line department that can be deputed for the MGNREGS works, they are allotted multiple GPs.

The role and responsibilities of Engineers are as follows:

- survey the area where the work is identified
- prepare estimation sheet of the works identified
- measure the works
- fill MB and calculate the wage according to the work
- approve the work

2.3.4 Technical Assistant

The Technical Assistant (TA) assists the GP in identifying and conducting measurement of works. TA is appointed for a cluster of villages, depending on the potential labor demand. A TA ought to have understanding of various MGNREGS works and must be trained in estimating and measuring works ranging from watershed development, natural resource management, agriculture, horticulture and so on. TA will report to PO/APO.

The role and responsibilities of TAs are as follows:

- identification of works as per the Gram Sabha resolution on works
- preparation of estimates for works up to Rs 5 lakh in standard templates
- capturing measurements on a weekly basis for all the works taken up within three days after muster rolls are closed
- mentoring GRSs on measurement and quality of works
- building technical capacities of GRSs
- be responsible for work quality
- maintenance of measurement books

2.3.5 Computer Operator and Accountant

The Computer Operator and Accountant operate at Block level and assist APO exclusively in data entry work and maintenance of MGNREGS accounts. State should ensure that at least 3 Computer Operators are deployed at the Block Computer Centre.

The role and responsibilities of Computer Operator and Accountant are as follows:

- Data entry and generation of Job Cards, work demand (registered), technical estimates, Work commencement letters, etc.
- Generation of pay orders and preparing necessary cheques
- Maintenance of Accounts, Registers, Files and other MGNREGS related correspondence.
- Generation of MIS and other review reports for Programme Officer

2.3.6 Gram Rozgar Sevak (GRS)

Gram Rozgar Sevak (GRS) assist the Gram Panchayat (GP) in conducting MGNREGS works at GP level. The GRS is engaged exclusively for MGNREGS. The

function of Gram Rozgar Sevak (GRS) and the Panchayat Secretary³² (also called as Gram Sevak (GS)) should be clearly distinguished. GRS is a dedicated staff under MGNREGS. The cost of GRS is the first charge on the administrative expenses under MGNREGS. The state must ensure that at least one GRS is deployed in every GP except in periurban or other panchayats where demand for work under MGNREGS is almost nonexistent. More than one GRS may be deployed in GPs that have high labour potential and GPs with scattered habitations and tribal areas. The GRS should be adequately trained in work-site management and measurement of works. Appropriate performance incentive-disincentive system has to be worked out for salary of GRS. The salary of GRS can be based on fixed pay or on performance basis.

The role and responsibilities of GRS are as follows:

- overseeing the process of registration, distribution of job cards, provision of dated receipts against job applications, allocation of work to applicants etc.
- ensuring that the requisite Gram Sabha meetings and social audit are held
- recording attendance of labour every day himself/ herself in the prescribed Muster rolls at worksite
- ensuring that Group mark outs are given at work site for every labour group so as to ensure minimum wages every day
- attending all review meeting called upon by Programme Officer
- ensuring worksite facilities at all worksites by engaging a person for drinking water and a person for Aaya services wherever required and by arranging a first aid box and shade at work site
- updating the job cards regularly
- maintaining all MGNREGS-related registers at the Gram Panchayat level, including prescribed accounts, and ensuring that these documents are conveniently available for public scrutiny

³² It is observed from the field study in selected blocks that GRS is assistant to GS. It is Gram sevak (i.e. the Panchayat Secretary) whom the local people of the village trust for their demands for jobs and grievances. Hence GRS is least bothered and is held less responsible for any issues related to MGNREGS, while GS who is already burdened with his routine tasks (discussed in further chapter) has to perform the tasks of GRS also. (Refer Annexure 2: Interviews with GS)

Table 2.1 summarizes the institutes and key personnel roles and responsibilities. With this understanding of the institutional structure and personnel available for implementation of MGNREGS at panchayat levels, we now move ahead to study the implementation process in section 2.4.

Table 2.1: Summary of Roles and Responsibilities

Institution		Personnel	Role at each level	Execution / Implementation
Central Government	Ministry of Rural Development (MoRD)		Nodal Ministry for MGNREGS implementation Timely delivery of resources to state, review, monitor and evaluate resources, MGNREGS process and outcomes Establish MIS	
	Central Employment Guarantee Council (CEGC)		Advise Central Government on MGNREGS matters, monitor, evaluate, Prepare annual reports	
State government	Department of Rural Development		Formulate Rural Employment Guarantee scheme (REGS) according to the act Designate State Rural Employment Guarantee Commissioner Ensure Timely release of state share of MGNREGS budget, wide dissemination, Facilitate Admin, Finance, Technical support for PRI	
	State Employment Guarantee Council (SEGC)		Advise State Government on MGNREGS matters, monitor, evaluate, Prepare annual reports	
3 – Tier Panchyati Raj Institute	District / Zilla	District Program Coordinator	Responsible for overall Coordination and implementation of scheme in district Make 5 years district perspective plans Prepare block wise SOP Indicate the time frame, person days of labour to be generated and full cost	-20% of approved work (works which involves multiple blocks) Eg. Road connectivity
		Technical Resource Support Group (Line departments)	Assess technical, feasibility, cost efficiency, monitor and evaluate	
	Block / Panchayat Samiti	MGNREGS Block Program officer	Technical Sanction/ Approval Make consolidated statements of approvals	-30% of the approved project (works which involves multiple GPs)
	Village / Gram Panchyat	Gram Sevak and Gram Rozgar Sevak	Identification of works through village council/ Gram Sabha or sub village council/ ward sabha Annual plan	-must execute 50% of the approved projects Monitor and audit implementation

2.4 The Implementation Process

In order to provide employment in a timely and adequate manner, the local government institutions at all levels must identify priority areas of employment-generating activities and propose, scrutinize, and approve the respective MGNREGS projects. At the district level, the identification of the MGNREGS projects is guided by the five-year District Perspective Plan, which specifies the long-term employment-generation and development perspectives of the district. In addition to the long-term plan, local government institutions at all levels must also identify the priority activities to be taken up in a year. At the gram panchayat level, these priority areas are decided during village council (gram sabha) and sub village council (ward sabha) meetings. Based on the recommendations formulated in the gram sabha and ward sabha, the gram panchayat prepares an annual plan and forwards it to the MGNREGS block program officer for technical sanction/approval.

The program officer scrutinizes the annual plans of the individual gram panchayats for technical feasibility and submits a consolidated statement of approved proposals at the block level to the taluka (or intermediate) panchayat. The taluka panchayat discusses and approves the plan and forwards it to the district program coordinator. The coordinator scrutinizes the plan proposals of all taluka panchayats and consolidates them into a district plan proposal with a block-wise shelf of projects (arranged by gram panchayat).

For each project, the district plan indicates

- the time frame
- the person-days of labor to be generated
- the full cost

This plan is discussed and approved by the zilla panchayat with the assistance of technical support available from line departments. The Engineers from line departments are asked to assess the technical feasibility and cost efficiency of projects and to monitor and evaluate work implementation. Following the approval of the development plans through the zilla panchayat, the gram panchayat must execute at least 50 percent of the projects as well as

monitor and audit the implementation of the MGNREGS at the gram panchayat level. The responsibility for these activities at the gram panchayat rests with the employment guarantee assistant, that is, the Gram Rozgar Sevak. Thirty percent of the development projects can be executed by the taluka panchayat and 20 percent can be realized through the zilla panchayat. Block- and district-level activities are expected to cover more than one gram panchayat and taluk panchayat, respectively. Examples are roads that connect several gram or taluka panchayats.

In addition to defining and implementing annual work plans that identify the priority activities to be taken up in a year, the gram panchayats are also responsible for verifying the household's registration for MGNREGS employment, registering households for job cards, issuing and distributing job cards, allocating employment, initiating MGNREGS -related projects, measuring and evaluating the completed work, and remunerating the MGNREGS wage workers. The gram panchayats are required to issue job cards free of cost within 14 days after the application for registration is submitted. Valid for a period of five years, job cards must carry the photographs of adult members.

Following the issuing of job cards, rural households have a right to seek employment from the gram panchayat or the program officer. Once the request for employment is submitted in writing to the gram panchayat or the program officer, stating the registration number of the job card, the date from which employment is required, and the number of days of employment required, work is to be provided within a radius of 5 kilometers of the village and within 15 days of the date of demand. If the state fails to provide work within the mandated period for whatever reason, the applicant is entitled to an unemployment allowance at pre-fixed rates, paid by the state government. If work cannot be provided within a radius of 5 kilometers of the village, the rural workers are entitled to a markup equal to 10 percent of their wages.

People who take up employment under MGNREGS are entitled to receive their wages between 7 and 15 days after the date on which the work was executed for a period of at least 14 days. The wage rate must be at least as high as the minimum wage rate set by the central

government or the state and must be paid according to a piece rate or daily rate and disbursed on a weekly or fortnightly basis. The minimum wage should not be less than Rs.145 per day³³. Besides setting minimum wages, the act also promotes livelihood security in rural areas by mandating a wage-to-material ratio of 60:40. To this end, the Act bans the use of machinery as well as contractors. The latter are perceived to exploit unskilled workers and to use capital- rather than labor-intensive production techniques.

In terms of funding, MGNREGS activities are financed with funds from the central as well as state government. The central government releases funds directly to the districts through the National Employment Guarantee Fund. The funds cover 75 percent of the MGNREGS - related material and wage expenses of semiskilled and skilled workers. The central government is required to fund 100 percent of the wage costs of unskilled workers. The state government is mandated to provide the funds for the remaining 25 percent of expenses as well as the funds for the unemployment allowance payments and the administrative expenses of the SEGC. To this end, the state government releases revolving funds under the REGS to the implementing agencies at the district, block, and village levels. At all levels, the implementation of the MGNREGS is facilitated by line departments, nongovernmental organizations (NGOs), central and state government undertakings, and self-help groups.(Raabe, Sekher, & Schiffer, 2010).

³³Present wage rate for Maharashtra effective from 01-04-2012. Available on NREGA website: http://nrega.nic.in/circular/revised_wage_rate_from_01042012.pdf

2.5 Important Records to be maintained at Panchayat levels

In the entire process of implementation of scheme, there are various records which are important to be maintained at various levels of panchayats. Proper maintenance of records is one of the critical success factors in the implementation of MGNREGS. Information on critical inputs, processes, outputs and outcomes have to be meticulously recorded in prescribed registers at the levels of District Programme Coordinator, Programme Officer, Gram Panchayat and other Implementing Agencies. The computer based Management Information System (MIS) will also capture the same information electronically. In order to facilitate systematic collection of information at various levels, following records are to be maintained under MGNREGS:

2.5.1 Muster Roll Issue Register

This register is maintained date-wise by the Programme Officer who is the Muster Roll issuing authority. This Register helps to correlate the Muster Rolls issued with the work and the agency for which it is issued. This Register will be maintained by the Programme Officer at the Block level.

2.5.2 Muster Roll Receipt Register for Gram Panchayats

This Register is maintained by the Gram Panchayat which receives the Muster Roll from the Programme Officers. This Register also contains the details of receipts of the used Muster Rolls given to the Gram Panchayats by other implementing agencies. This Register will be maintained by Gram Panchayat.

2.5.3 Job Card Application Register

In this Register the name of the applicant, date of receipt of application and the details of job cards issued are provided. It also contains reasons in case the job card is not issued. This Register will be maintained by Gram Panchayat/Programme Officer.

2.5.4 Job Card Register

In this Register the details of the members of the households who have been issued job cards are given. This Register will be maintained by Gram Panchayat/Programme Officer.

2.5.5 Employment Register

This contains the information on details of application for work, allotment of work, performance of work and the wages or unemployment allowance paid to the worker. This Register will be maintained by Gram Panchayat/ Programme Officer.

2.5.6 Works Register

This Register contains details of the work such as number. And date of sanction order, completion date, expenditure incurred, date of social audit, pre-mid-post-project condition of the work, etc. This Register will be maintained by Programme Officer/Gram Panchayat/other Implementing Agencies.

2.5.7 Assets Register

This Register contains details of the asset, its cost, location, current status, benefits derivable and the details of works which have been taken on the asset. This Register will be maintained by Programme Officer/Gram Panchayat/other Implementing Agencies. A distinction needs to be maintained between works and assets. Works are taken up on pre-existing assets or, they lead to creation of new assets. Whenever works are taken up, entries should be made not only in the works register but also in the assets register.

2.5.8 Complaints Register

This Register contains the date of receipt of the complaint, the details of the complainant, the action taken on the complaint and the date of final disposal. This Register will be maintained by Programme Officer/DPC/ Gram Panchayats/ other Implementing Agencies.

2.5.9 Monthly Allotment and Utilization Certificate Watch Register

This Register contains date-wise information on allotment, expenditure, balance available with the implementing agency and the details regarding submission and pendency of Utilization Certificate. This Register should be maintained by all agencies that receive funds for expenditure under NREGA. This Register will be maintained by DPC/ Programme Officer/ Gram Panchayat/Other Implementing Agencies.

Table 2.2: Summary of the records to be maintained and indication to reference to their format (Source: (MoRD, 2008))

Sl. No.	Annexure of Guideline	Name of Register	Level at which Register is to be maintained
1	B-4	Muster Roll Issue Register	Programme Officer at the Block level
2	B-5	Muster Roll Receipt Register	Gram Panchayat
3	B-6	Muster Roll Receipt Register	Implementing Agency other than Gram Panchayat
4	B-7	Job Card Application Register	Gram Panchayat/ Programme Officer
5	B-8	Job Card Register	Gram Panchayat/ Programme Officer
6	B-9	Employment Register	Gram Panchayat/ Programme Officer
7	B-10(i)	Works Register	Programme Officer/Gram Panchayat/ other Implementing Agencies
8	B-10(ii)	Assets Register	Programme Officer/Gram Panchayat/ other Implementing Agencies
9	B-11	Complaint Register	Programme Officer/DPC/ Gram Panchayats/ other Implementing Agencies
10	B-16(A)	Monthly Allotment and Utilization Certificate Watch Register	DPC/ Programme Officer/ Gram Panchayat/Other Implementing Agencies

Despite of the clear instructions in operational guidelines for maintenance of these records and their importance, the above mentioned records are very poorly maintained at all levels of Panchayats³⁴. Only records which seem to be adequately maintained at panchyats levels are the Muster rolls, the Measurement book and the Estimation sheet.

2.5.10 The Muster rolls:

Muster rolls contain the following information for each work: Name of the person on work; his or her job card number; days worked and days absent; wages paid; Unique identity number of the work; Signature or thumb impression of the payee. The payment made and the number of days worked will be entered in the household job card of every worker. The original muster roll forms part of the expenditure record of the Executing Agency. Muster Rolls are computerized at the Programme Officer level. Any Muster Roll that is not issued from the office of the Programme Officer is considered unauthorized.



Figure 2.5: Snapshots of Muster roll Format

³⁴ This was evident from the fact that none of the registers were presented by the Panchyats from Makhada block to Aroehan for scrutiny in the analysis for social audit which was held on 10th May 2012.

2.5.11 The Measurement Book (MB):

It is one of the important records which contain measurement of all works carried out under the MGNREGS. The implementation of all work can be justified through maintenance of the measurement of work done at the different stages of each work in Measurement book. After the completion of final measurement, value of that work can be calculated at any time by multiplying the quantity with the rate. For monitoring the work done at the different stages, it is necessary to maintain progressive measurement of the work at the time of completion of different stages of each activity. Payment at the completion of different stages can be justified through showing the output of the work done against the payment made. It is an important document to justify the work at the time of evaluation and audit and during other visits that it is completed as per the estimate. (Refer Figure 2.6)


PARISHAD MEASUREMENT BOOK									
Name of work : <u>बहोला वगरीद कंधारा 3</u>		Book No. <u>647</u>		Page <u>1</u>					
Agency by which is executed : <u>Shri.</u>									
Date of Measurement	Particulars of work	Details					Last Measurement		Total upto date
		No.	L.	B.	D.	Contents of area	Page No.	Quantity	
1	2	3	4	5	6	7	8	9	10
	प्रशासनिय मास्यता रु.								
	वाक्य 1 वाक्य नंबर छोरी करीस काका नंबर साधु कुवेर-पाना खोके 4 अंश								
	अनुवाद: 3x38.00 x 2.90 x 0.30								= 8.87 रु.मि
	वाक्य 2 वाक्य नंबर करीस करीस लजगरी रिडमी पेली स्केरि करीस								= 3.52 पेली
	कुवेर								
	वाक्य 3 वाक्य नंबर करीस करीस लजगरी रिडमी पेली स्केरि करीस								= 3.02 पेली
	कुवेर								
	8 रिडमी पेली करीस माडी वाक्य माती नंबर 1 रुक पेली करीस								
	अनुवाद								
	सारणी उती								
	0.00 3.20 3.50 0.80 3.00 0.80 2.50 0.30 2.32								
	8.00 3.20 3.50 0.80 3.00 0.80 2.50 0.30 2.32 2.32 8.00 1.82								
	16.00 3.20 3.50 0.80 3.00 0.80 2.50 0.30 2.32 2.32 16.00 3.64								
	24.00 3.20 3.50 0.80 3.00 0.80 2.50 0.30 2.32 2.32 24.00 5.46								
	32.00 3.20 3.50 0.80 3.00 0.80 2.50 0.30 2.32 2.32 32.00 7.28								
	40.00 3.20 3.50 0.80 3.00 0.80 2.50 0.30 2.32 2.32 40.00 9.10								
	माती माती रुक								28.82 रु.मि
	सगरी उती								
	9.20 3.20 3.50 3.20 3.20								9.20 मि
	उती								
	उती								
	9.20 x 0.30 x 3.20								4.08 रु.मि
	कुवेर उती								4.08 रु.मि

Figure 2.6: Snapshot of Page of MB

2.5.12 The Estimation Sheet:

The other important document is the Estimation sheet. The Estimate sheet contains following sections in it: Details of the work, Administrative sanction number with date, Technical sanction number with date, Approving authority, Labor and material component, Activities involved in work, Measurements, Rate analysis and Design diagram. It is important reference for carrying out the work at worksite. The final work is checked with respect to the Estimation sheet. The Estimation sheet is prepared by Engineers at ZP levels.

ZP - Roadside Gutter ESTIMATE M6-351-78

DIVISION : Jawhar Division, Zila Parishad Thane Sub Division, Jawhar.

FUND HEAD : Mahatma-Gandhi Rural Employment Guarantee Scheme 90-99

MAJOR HEAD : Mahatma-Gandhi Rural Employment Guarantee Scheme 90-99

SERVICE HEAD : Mahatma-Gandhi Rural Employment Guarantee Scheme 90-99

DEPARTMENTAL HEAD : Mahatma-Gandhi Rural Employment Guarantee Scheme 90-99

Estimate Framed in the office of the Deputy Engineer, ZP Sub-Division Mookhada, of the probable expenditure that will be incurred in following work.

Name of work - Excavation of roadside gutter to washala to pinpalgaon road Tel. Mochhadha 4/40070 6/400

Rs. 294744.00

Administratively Approved By the Under No. 130 Date 23.09.11

Technically Sanctioned by the Under No. 220 Date 21.09.11

Estimate Prepared by Shri S. A. Sawant, Sectional/Junior Engineer.

And checked by Shri. N. G. Kulkarni, Sectional/Junior Engineer

(Call or authority) Necessary

GENERAL DESCRIPTION

सदरचे काम महाराष्ट्र ग्रामिण रोजगार हमी योजने (सामवायन) च्या 2010-2011 च्या आराखड्यावर भरतू आहे. अंदाजपत्रकाला काही चर्चीत यामागे भरण्यात आला आहे.

1) रस्त्याची साइड वरती साधारणपणे 4 मी रुंदी घेण्यात आली आहे. या चर्चीत यामागे भरण्यात आलेले कामे खालीलप्रमाणे आहेत - 1) रस्त्याची साइड वरती साधारणपणे 4 मी रुंदी घेण्यात आली आहे. 2) रस्त्याच्या साइड वरती वरती साधारणपणे 4 मी रुंदी घेण्यात आली आहे. 3) रस्त्याच्या साइड वरती वरती साधारणपणे 4 मी रुंदी घेण्यात आली आहे. 4) रस्त्याच्या साइड वरती वरती साधारणपणे 4 मी रुंदी घेण्यात आली आहे.

अंदाजपत्रकाला भरण्यात आलेले दर हे महाराष्ट्र ग्रामिण रोजगार हमी योजने च्या 2010-2011 च्या आराखड्यावर भरतू आहे. अंदाजपत्रकाला काही चर्चीत यामागे भरण्यात आला आहे.

उपरोक्त अंदाजपत्रक श्रेणी - 9 च्या अंतर्गत, उपविभाग, मोकहाडा

Name of work - Excavation of roadside gutter to washala to pinpalgaon road

LABOUR AND MATERIAL COMPONENT (80 : 20 RATIO)

S/N	ITEM OF WORK	Qty	Unit	Rate	UNOSKI Amount	SKILL Rate	SKILL Amount	TOTAL
1	Cleaning the Road etc.	4000.00	2.80	11200.00	--	8.00	11200.00	11200.00
2	All Excavation in soft murum.	1620.00	68.17	110430.00	--	8.00	110430.00	110430.00
3	Spreading the Murum for bludge on over size metal layer and side	800.00	20.50	16400.00	--	--	--	16400.00
4	Compacting the hard murum side with static roller including artificial watering etc.	4000.00	--	0.00	4.40	17000.00	17000.00	17000.00
5	Providing & fixing name board.	0.27	--	0.00	7363.00	1988.01	1988.01	1988.01
Total Rs.				--	138930.00	--	1988.01	157618.01
6	Add for Providing labour facility, (tools, plants, shelter, first box etc.) 2.70% on labour component	--	--	3726.81	--	--	--	3726.81
7	Royalty Charges on item No. 2	1620.00	0	0	70.07	11405.40	114485.40	114485.40
8	Rate 12.00 for planning & Expenditure.	--	--	--	--	33098.83	18914.16	18914.16
Total Rs.				--	141756.81	--	167173.54	294744.35
						Say Rs.	294744.35	

Labour Component 138930.00 87.57

Material Component 19568.01 12.43

(Mandatory)

Sectional/Junior Engineer, Z.P. Sub Division Mookhada

Deputy Engineer (Class-III), Zila Parishad Sub-Division, Mookhada.

महाराष्ट्र शासन
ग्रामिण रोजगार हमी योजने
अंदाजपत्रक
श्रेणी - 9
उपविभाग, मोकहाडा

Figure 2.7a: Snapshot of Estimation Sheet

Pimpalgam road-Tal-mokhada

ABSTRACT				
Qty.	Item of work	Rate	Unit	Amount
14000.00	Item no 1 - Clearing the road side width including cutting bushes of trees etc. complete (MREGS 2r11)	2.80	Sqmt	11200.00
1620.00	Item no.2 - Excavation for road way and gutter source internal lead upto 10 m. and lift to 1.5 m including laying in layers of 20 cm. to 30 cm. and sectioning etc complete. (RA)	68.17	Cumt	110433.00
800.00	Item no.3 - Spreading Av. Murum for bludge on over size metal layer and side width including sectioning etc. complete (MREGS 1 No 10)	29.50	Cumt	23600.00
4000.00	Item No.4-Compacting the hard murum side width, layer wise on each side with static roller including artificial watering etc. complete (PWD DSR-121/30)	4.40	Sqmt	17600.00
0.27	Item no 12 - Providing and fixing information board with size and description including painting lettering etc. complete (PWD DSR 132/83)	7363.00	Sqmt	1988.01
			Total	157918.01
	Add 2.70% for Providing labour facility. (tools, plants, shelter listed box etc.) on labour amt.			4258.00
1620.00	Add Royalty Charges on Item No. 2	70.67	Cumt	114888.40
	Add 12 % for painting & Expenditure Total Amt			12854.18
			Total	224764.59
			Govt. Rs.	224764.59

Sanne
 Sub. Divisional Engineer Grade 1st
 Z.P.(P.W.) Sub. Division, Mokhada
Sanjay
 Sd/-
 2/1/23

Name of work - Excavation of roadside gutter to washala in Pimpalgam road Tal-mokhada

MEASUREMENT						
Item No.	Length	Width	Height	Qty	Unit	Sign
Item no.1 - Clearing the road side width including cutting bushes of trees etc. complete						
	1	2000.00	2.80	4000.00	Sqmt	
Item no.2 - Excavation for road way and gutter source internal lead upto 10 m. and lift to 1.5 m including laying in layers of 20 cm. to 30 cm. and sectioning etc complete						
	2	2000.00	(0.90 + 0.60) x 0.75	2250.00	Cumt	
	2	2000.00	(0.60 + 0.45) x 0.30	630.00	Cumt	
				1620.00	Cumt	
Item no.3 - Spreading Av. Murum and Hard murum for bludge on over size metal layer and hard murum side width including sectioning etc. complete.						
	2	2000.00	1.00	2000.00	Cumt	
Item no.5 - Watering and compacting Hard murum side shoulder layer including watering etc. complete.						
	2	2000.00	1.00	4000.00	Sqmt	
Item no.6 - Providing and fixing information board with size and description including painting lettering etc. complete.						
	1	0.60	0.40	0.27	Sqmt	

Sanne
 Sd/-
 2/1/23

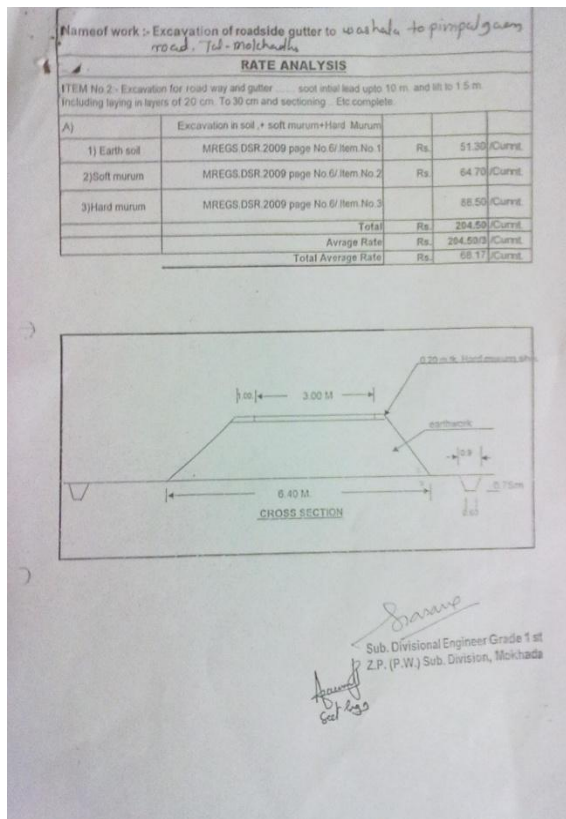


Figure 2.7b: Snapshot of Estimation Sheet

2.6 Summary

This chapter has explained the institutional setup, the associated personnel, the implementation process and the important records to be maintained in MGNREGS at the district, block and village levels. The institutional architecture reveals that it is very well interwoven and designed to be superimposed on the present administrative structure of India, right from central government to the lowest institution in the hierarchy – the gram panchayat. With the primary understanding of the general governance framework for implementation of the scheme, we can now focus our attention on technical aspects associated with it. The next chapter deals with assessment of technical aspects of implementation of MGNREGS.

Chapter 3 – Assessment of Technical aspects of Implementation of MGNREGS

This chapter presents the assessment of Technical aspects of implementation of MGNREGS in the studied block. The assessment is based on the secondary, quantitative and qualitative data and presented in the order in which the rationale of the study was described i.e. knowing capacities, i.e., technical personnel required at block and GP level, capabilities of these personnel to carry out the tasks (i.e. planning, designing, execution, monitoring and evaluation) mandated and the performance of the scheme considering the available capacities and support systems at national, state and district level for the technical capacities. In the initial sections, the chapter gives complete details of the available technical personnel and the workload they are handling. The qualitative data is used to derive the perception of various stakeholders with respect to the different components in the tasks. Through the qualitative data we also try to analyze the interdependence of various stakeholders in context of performing the technical tasks associated with the process of implementation of MGNREGS. Next to supplement the study with concrete base to argue upon the weakness of the technical aspects of implementation, a performance review of implementation of the scheme is done taking into consideration the work projection and progress, the work execution and the yearly work completion rate in three sample blocks. This analysis gives strong indication of deteriorating performance of MGNREGS due to absence of inadequate efforts in enhancement of the various technical aspects related to implementation. Before we move on to the analysis, we first briefly discuss the profiles of sample blocks.

3.1 Profile of the sample blocks

3.1.1 Mokhada block

Mokhada is a Taluka headquarters town in Thane District, situated in the mountain region of the Sahyadris. Located to the north-east of Jawhar, Mokhada is off the Khodala-Parsipada road. Mokhada has 28 GPs and 59 villages. Total population is 67,319, out of which 90.56% are Scheduled Tribe. The total area of Mokhada is 48,900 ha, out of which 13,600 ha is covered by forests and 27,600 ha is agricultural land. Paddy and Nachni are the main crops.

Mokhada block is reported to have a problem of malnutrition. (CIFE, 2009). Large number of water conservation and rural connectivity related works are been undertaken in this block under MGNREGS.

3.1.2 Jawhar Block

Jawhar block lies in Sahyadri ranges in Thane district. Jawhar block is 100% tribal block with population of 1,31,346. It has 50 GPs comprising of 185 villages with 103175 hectare geographic area mostly covered by undulating terrains. The area has four significant rivers viz. Surya, Pinjali, Wagh and Deharji. Jawhar block also comprises of about 6800 ha reserved forest area. Natural forest cover is fast dwindling and accordingly income from forest produce is also reducing. This has compelled the native tribal communities to contemplate over other sources of income. (Deshpande, n d). Similar to Mokhada block the prime focus is on water conservation and rural connectivity related works in this block under MGNREGS.

3.1.3 Palghar Block

Palghar block lies on the coastal region of Maharashtra. It has 133 GPs within its boundaries. The total population of Palghar block is 4,66,913³⁵ and the block comprise of less than 60% of tribal population. The block is intermediately developed and the main occupation of the people of Palghar is employment in factories and farming. The block abounds in personnels - skilled and unskilled. Apart from the government promoted MIDC situated at Tarapur, Palghar block is also home to a number of industrial townships where there are many small scale industries such as engineering, pharmaceutical, plastics, textile, notebook industries. Maharashtra's biggest fishing center, Satpati, is located in this block. There are farms growing chикоos, coconuts, palm dotted all around villages in Palghar block. Rice is grown on agricultural lands during the monsoon. A large part of the population commutes to Mumbai daily to make a living³⁶. Because of the above mentioned alternative income sources available in the region, the response to MGNREGS in this block is not appreciable.

³⁵ Refer:

http://gateway.cdac.in:7113/aspnet/citizens/NAT/01NCH/Form2Habitation_localization.aspx?state=MH&district=30&block=3&status=0&pop=0&language=en&OrderBy=Asc&sortBy=4&value=c3ddbc24fe9c96f764928becb2b19fb4

³⁶ Information through website: <http://en.wikipedia.org/wiki/Palghar>

3.2 Quantitative Analysis of Data

We start our assessment of technical aspects of implementation of MGNREGS with the quantitative analysis of data. In section 3.2.1, we first look upon the availability of technical personnel at block and GP level to handle the technical tasks associated with the implementation of the scheme. Next in the subsequent section 3.2.2, we also try to evaluate the amount of workload on the available technical personnel. The analysis gives us clear insight of the problems associated with first technical aspect which we have considered for our study i.e. the technical personnel at block and GP level.

3.2.1 Technical Capacity at Block and GP Level

Before we try to present the figures on available number of dedicated engineers deployed for the implementation of MGNREGS, we would first refer to what the guideline says about the deployment of dedicated engineers. The report of the committee for revision of MGNREGS operational guideline in its chapter 4 on Institutional Architecture and Personnel in section 4.2.4 says – to ensure the timely measurement of work and adherence to technical standards in the execution of work, all States have been directed to deploy 2 engineers per 6000 population of rural households. In North Eastern states and hill states (J&K, Himachal Pradesh and Uttaranchal), 2 engineers may be deployed per 3000 population of rural households.” (Shah, 2012). Based on these guidelines, we tried to compute the required number of engineers needed in the three blocks for carrying out the technical task in implementation of the scheme. The observations are presented in table 3.1.

Table 3.1: Dedicated Number of Engineers required and available in 3 blocks

Block	Population ³⁷	Rural/Tribal population	Required No. of Dedicated Engineers need as per guideline	Available No. of Engineers	Technical personnel
Mokhada	67,319	60,587 (90%)	20	8	40
Jawhar	1,31,346	1,18,211 (90%)	39	7	18
Palghar	4,66,913	2,80,147 (60%)	93	14	15

³⁷ The population figures are taken from CIFE report published in 2009 hence are based on census 2001

Referring to table 3.1, we find that 20 engineers, 39 engineers and 93 engineers are needed in Mokhada, Jawhar and Palghar block respectively, to manage the work execution. However, only 40%, 18% and 15% of the required number of engineers in above three blocks, respectively, are available for deployment for the work execution. The technical personnel deficit is clearly visible in table 3.1. With merely 15% to 40% of technical personnel available at block level, it can be observed that how the process of implementation of the scheme is hampered due to the very first technical aspect of implementation i.e. adequate number of technical personnel. At GP level, there are no engineers. So even though GPs are the key implementation agency in MGNREGS, the technical capacity of GPs in terms of technical personnel is nil. GPs have to fully depend on block level technical personnel for performing their technical tasks in implementation of the scheme. Already when there is technical personnel deficit at block level, the dependency of GPs come as an added burden on the block level technical personnel. This inadequacy of technical personnel at block level and absence of technical personnel at GP level is the first primary reason for the deteriorating performance of MGNREGS over the period of time. Here we also notice that the MGNREGS operational guideline have not put sufficient condition for deployment of dedicated engineers. It should be noted that the deployment of dedicated engineers must be based on the demand of jobs in the blocks which must be the additional condition in line with the condition of the population of rural household. We now try to evaluate, in section 3.2.2, the workload on the available number of engineers in the three blocks. We also try to see the available number of technical and non technical supporting staff deployed under these engineers.

3.2.2 Workload evaluation and support staff

Table 3.2 tabulates the number of GPs, the available number of engineers, TAs, GS, and GRS, total number of works proposed in for financial year 2012-13, and the total cost of works. Based on the figures available from the secondary data, we computed two approximate parameters viz. per engineer work load and cost of those work.

Table 3.2: Technical personnels (Engineers and TA), GS and GRS available in 3 blocks³⁸

Block	GP	Engineers ³⁹	TAs ⁴⁰	GS	GRS	Total No. of New works proposed for financial year 2012-13	Total Cost (Rs.) Lakhs	Per engineer work load	Per engineer work cost (Rs.) Lakhs
Mokhada	28	8	2	28	29	560	1395.41	70	174
Jawhar	50	7	1	50	39	1039	2559.2	148	365
Palghar	133	14	3	133	118	2420	546.16	172	39

It can be seen from the table 3.2 that in Mokhada block 8 Engineers with 2 Technical Assistants handle 28 GPs and manage 560 works with the total cost of Rs. 1395.41 lakhs. In Jawhar block, the situation is worse as compared to Mokhada block. Here 7 Engineers with 1 Technical Assistant handle 50 GPs and manage 1039 works worth total cost of Rs. 2559.20 lakhs. In Palghar block, 14 Engineers with 3 Technical Assistants are handling 2420 works worth total cost of Rs. 546.16 lakhs in 133 GPs. In Mokhada block, figure for allotment of GPs to engineer is 3-4 GPs/Engineer, in Jawhar block the allotment lies between 5-9 GPs/Engineer while in Palghar block the figure lies in between 6-16 GPs/Engineer. Looking at the per engineer workload figure, in Mokhada each is engineer is handling 70 works worth Rs. 174 lakhs. In Jawhar, the each engineer is burdened with workload of 148 works and is accountable for Rs. 365 lakhs. While, in Palghar the situation is bit easy for engineers. Each engineer in Palghar is accountable for Rs. 39 lakhs though each one of them keeps track of 172 works. There exists no thumb rule for how many works worth what amount should an engineer handle and neither it is clearly defined anywhere. The data also reveals that the engineers handling tribal blocks are burdened heavily than the block which has lesser tribal population which ultimately points to lesser job demand under the scheme in the block. It is evident from the data that adequate dedicated engineers and support to them need to be deployed in the blocks with higher job demand in order fill in the demand supply gap.

³⁸ Table is derived from Annexures 3, 4 and 5

³⁹ Engineers from line departments

⁴⁰ Number of Technical Assistants (TAs) in MGNREGS Cell A which manages 50% of work undertaken by GP

Now we shall discuss about the technical and non technical support staff deployed under these available engineers. The only technical staff available to support engineers in the execution of the MGNREGS works is Technical Assistant. The non technical staff is Gram Sevak and Gram Rozgar Sevak. TA is at block level and available in MGNREGS cell in Panchyat Samiti Office, while GS and GRS are at GP level. As seen from table 3.2, looking at the figures of number of TAs available it is evident that engineers do not have independent TA to assist them in their work. It seems that TA is shared by engineers as and when required. In the previous section we found that there are inadequate number of key technical personnels at block level i.e. engineers, but now it is observed that even the technical support staff available under the key technical personnel is also inadequate in number. As seen from table 3.2, GS and GRS, though adequate in number i.e. at least one per GP, is unable to assist and support engineers in their routine work due to the non technical background. During the discussions and interactions with TAs in Panchayat Samiti offices in all 3 sample blocks, it was observed that the basic qualification of a TA is either B.Sc in Agriculture or he holds a Diploma in Civil Engineering. Also no prior training is provided to them regarding the civil and earth work associated with MGNREGS. The point worth noting is since all of them are recruited on contractual basis, the TAs keeps on changing. A new TA again takes his time to cope-up with the situation, the works under MGNREGS and coordination with GPs. This vicious loop continues and hence the available technical personnel capacity does not mature and remain stagnant over the period of time. At each GP level, two people are the key to implementation of MGNREGS viz. the Gram Sevak (GS) and the Gram Rozgar Sevak (GRS). They exist in about equal numbers as those of number of GPs in each block. GRSs, also on contractual basis, are the dedicated person for MGNREGS. The only constraint is they have a non-technical background. With inadequacy in the number of Engineers, the inadequate number of TAs working on contractual basis without thorough know-how of the civil and earth work associated with MGNREGS and GRSs, though available in each GP and hence adequate in number but having a non-technical background, we say here that there persists a “Technical Capacity Deficit” at block and GP levels for execution of MGNREGS works. With this detailed discussion on the first aspect of our study i.e. technical personnel at block and GP level, we now move ahead with qualitative data analysis in section 3.3

3.3 Qualitative analysis of Data

In this section of qualitative analysis of data, we represent the qualitative data with three different discussions. In section 3.3.1, we try to analyze the perceptions of various stakeholders, the interdependence of these stakeholders is discussed in section 3.3.2 and lastly we note their views on technical support institutes in section 3.3.3. Recalling the second aspect of our study, we in this section of qualitative analysis try to note the understanding of various stakeholders and their engagement with each other in order to perform the technical tasks i.e. planning, designing, execution, monitoring and evaluation associated with process of implementation of scheme. Lastly their views on problems regarding the technical support institutes are discussed.

3.3.1 Perceptions of Stakeholders

In an attempt to understand the problems associated with technical capacity in the implementation process, we first try to understand the perception of various stakeholders at various levels of PRI. The perceptions give us an insight on how each stakeholder has understood their role, how they are performing their tasks, which steps are omitted in carrying out the necessary task and how this omission hampers the process of implementation of the scheme and ultimately its performance. Table 3.3 summarizes the perceptions of various stakeholders in context of variety of components involved in the technical tasks. We focus mainly on the tasks such as job demand analysis, planning of works, design and estimates of the work, execution of the work, monitoring and evaluation of the works.

Table 3.3: Perceptions of Stakeholders

Task	Component	Stakeholders	Perceptions	Remarks
Job Demand Analysis		Sarpanch, Gram Sevaks, Gram Rozgar sevaks	Basically done on the basis of number of job applications we get. Don't know how to utilize MIS	For annual perspective plan, job demand analysis has to done for previous year using MIS and then a forecast of the job demand for current

				year has to be made
Planning	Resource mapping	Sarpanch, Gram Sevaks, Gram Rozgar sevaks	Do not estimate and do resource mapping Jobs discussed in Gram sabha are considered and included in plan	Estimation of natural resource under the GP has to be made Resource mapping activity with the help of transect walk Identifying the works which will be an asset as well as enhance the natural resource base of the GP
Design and Estimates	Survey of the location Initial measurement as inputs to design parameter Design of structure Material and labour component Labor and material component, Activities involved in work, Measurements, Rate analysis and Design diagram	Line department engineers, TAs	All Locations are not visited for survey Rely on the inputs from Sarpanch, GS and GRS Previous design and estimation sheets are used as reference Have standard design diagram for each type of works, only dimensions change	Initial survey of the work sites identified for the work is to be done in order to prepare the design for the proposed structure Progressive measurement of work must come in measurement book as well as the problems faced while carrying out the work must also be noted in the measurement book Photograph of the worksite before starting of work and after completion of work must be taken and uploaded in MIS

Execution	<p>Work site management</p> <p>Initiation of works</p> <p>Technical support in handling the work</p> <p>Measurement of works</p> <p>Approving the work</p>	<p>Line department Engineers, TAs, GRS, GS</p>	<p>Worksite is visited initially before the execution starts for guiding how the work should be done</p> <p>Work site is visited finally when work gets completed for measurement of works</p> <p>Difficult to keep progressive track of all the works</p> <p>GRS or mate keeps track of work and inform on regular basis.</p> <p>Concentrate on highly technical works like construction of road</p>	<p>Worksite provision as mentioned in guideline must be provided at each worksite.</p> <p>Regular visits to site has to made in order to keep progressive track of the work and hence in order to maintain the quality of work.</p> <p>Measurement must be taken by engineers, TAs or trained professional only and then noted in measurement books on field itself</p>
Monitoring & Evaluation	<p>Asset Creation</p>	<p>All</p>	<p>Mostly not done as overburdened with workload</p> <p>Generally rely on MIS results for monitoring and evaluation reports</p>	<p>Monitoring and evaluation must be on the basis of work sites visits</p> <p>Must rely on the data available in various MGNREGS registers maintained at GP levels.</p> <p>Must also be able to act as grievances redressal system</p>

Starting with the task of job demand analysis, for annual perspective plan the job demand analysis has to be done from the previous year data using MIS and then a forecast of the job demand for current year has to be made. The key stakeholders in this activity are Sarpanch, Gram Sevaks, Gram Rozgar sevaks. But on interaction with them, it came to notice that such procedure is not followed and the job demand is plainly done on the basis of number of job applications the GP gets. On asking about MIS, they admit that they don't know MIS and how to use it. It points towards lack of technical know-how of advanced method of record keeping and data retrieval from it. It is necessary that each stakeholder is technically trained on this front so that the MIS is utilized to its full potential. Regarding planning, the ideal way to do so is to estimate the natural resource base under the GP and the resource mapping activity with the help of transect walk is to be carried out. It is necessary to identify the works which will be an asset over the period of time as well as enhance the natural resource base of the GP. But it is observed that such estimate and resource mapping is not done at GP level. Only the jobs discussed in Gram Sabha are considered and included in plan. Here it becomes evident that technical knowledge of participatory methods for planning is lacking with the stakeholders associated with the planning process. The key stakeholders in design and Estimates of the approved works are line department engineers and technical assistants. It is expected that before design the initial survey of the work sites identified for the work is to be done in order to prepare the design for the proposed structure. Also photograph of the worksite before starting of work and after completion of work must be taken and uploaded in MIS. It was clear from the interaction with engineers that all locations are not visited for survey. They rely on the inputs from Sarpanch, GS and GRS. The previous design and estimation sheets are used as reference and the departments have standard design diagram for each type of works. The only components that change are dimensions. Hence it becomes quite obvious that following such procedures for designing and estimates, it is not an asset which is design but just the structure in anticipation of job provision. There are number of technicalities involved in the execution of the work. The key stakeholders in execution process are engineers, TAs, GS and GRS. Worksite provision as mentioned in guideline must be provided at each worksite. Regular visits to site has to be made in order to keep progressive track of the work and hence in order to maintain the quality of work. Also progressive measurement of work must come in measurement book as well as the problems faced while

carrying out the work must also be noted in the measurement book. Measurement must be taken by engineer, TAs or trained professional only and then noted in measurement books on field itself. Worksite must be visited initially by engineers before the execution starts for guiding how the work should be done. But all these processes are hampered due to inadequate technical capacity to handle the ongoing works. Work site is visited finally when work gets completed for measurement of works. It becomes difficult for engineers to keep progressive track of all the works. The technical personnel then rely on GRS or mate to keep track of work and inform them on regular basis. Until and unless the technical capacity in terms of technical personnel at block and GP level increase, the procedure for execution of work will be hampered. The monitoring and evaluation of processes involved in the implementation of the scheme is usually not done by any stakeholders. If it has to be done for some audit or so, the stakeholders generally rely on reports from MIS. Given the perceptions of all stakeholders, it can be seen that how the various tasks associated with the implementation of the MGNREGS are poorly performed due to various technical constraints; be it inadequate technical personnel, lack of technical knowledge about tools used for participatory resource mapping, measurement of structure and know-how in using MIS. It is evident that each stakeholder needs specific technical training and support in context of the roles they play in the process of implementation. Due to lack of know-how and role clarity, one stakeholder's weakness becomes other stakeholder's burden. It will be interesting to analyze the interdependence of various stakeholders on each other in context of the technical tasks associated with process of implementation. Section 3.3.2 discusses this interdependence in details.

3.3.2 Interdependence of Stakeholders

Figure 3.1 illustrates the interdependence of various stakeholders in the process of implementation of the scheme. As seen from the figure, we try to analyze and discuss the interdependence of various stakeholders at district, block and GP level in context of the tasks associated with implementation of MGNREGS.

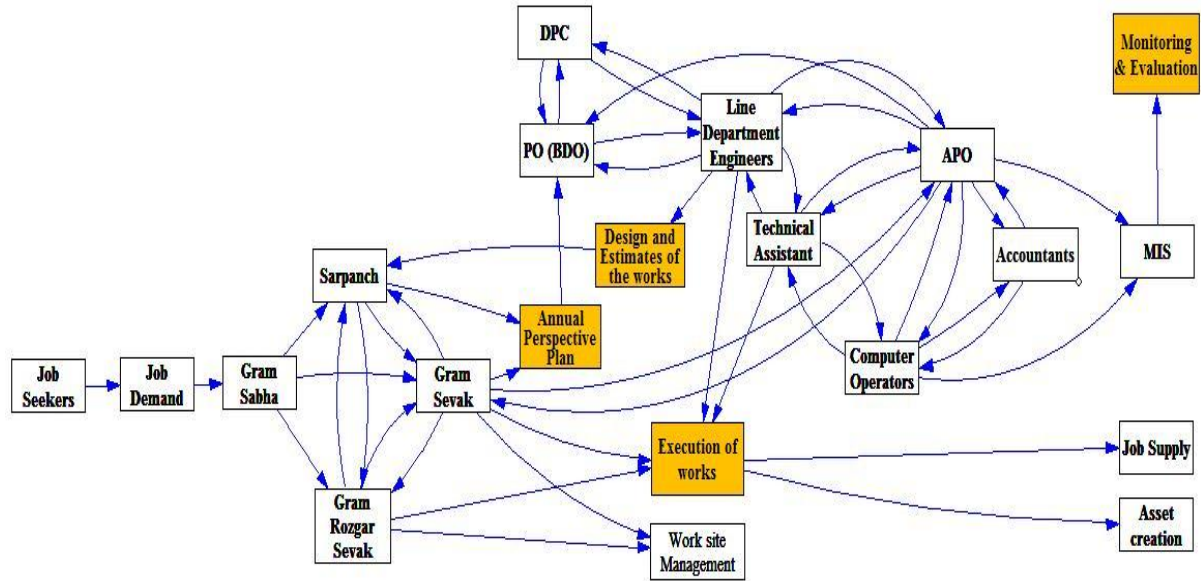


Figure 3.1: Interdependence of Stakeholders

Coping with the workload and paperwork at the panchayat level, the Sarpanch, Gram Sevak, and Gram Rozgar Sevak are overstretched. At the block level, the engineers and technical assistants are so preoccupied with the measurement of works and the preparation of wage payment orders that they do not have time to supervise works and provide technical guidance at the design or implementation stage. Even measurement is delayed, which holds up the payment of wages. In some cases it is not done by TAs at all, but is left to the non-technical staff. Similarly, computer data entry operators are not able to keep pace with the task of uploading muster rolls and other data into the MIS system. Inadequacy of personnel in the panchayats has been the major cause of delays in work execution, measurements and payments; poor quality of works; absence of genuinely bottom-up participatory planning; and social audit. There is a need for detailed appraisal of process to see if paper-work requirements can be simplified, stages eliminated, and the work flow streamlined. The scheme suffers from a general technical deficit because of shortage in the number and capacity of technical personnel, and arrangements to guide and supervise them. The latter could have been partly provided by the line departments such as the Public Works Department (PWD), Minor Irrigation and Forests, but the line departments have been generally reluctant to take on responsibilities under MGNREGS unless they are reimbursed for extra administrative. The GPs are too dependent on the Block Development Officers and

Engineers in the preparation of plan and estimates, measurement of works etc. GPs would, therefore, need not only competent GRSs, but also technical assistants and work site supervisors, selected and trained at the GP level within the State guidelines and accountable to the GSs. Urgent steps need be taken to deploy essential staff such as accountants, “barefoot engineers”, data entry operators, coordinators for social audit and grievance redressal etc. according to the need/size/terrain etc. of the panchayats. The interdependence diagram thus suggests that for all the tasks associated with implementation of the scheme the stakeholders at GP level are too dependent on the stakeholders at block level. Along with poor perception of the component involved in the tasks and the forced dependency is the result of lack of technical training and support which these stakeholders seek from the technical support institutes. The role of technical support institutes in enhancing the technical capability of various stakeholders at block and GP level is the least bothered in context of implementation of MGNREGS. Let us now understand the views of various stakeholders on technical support institutes in section 3.3.3.

3.3.3 Views on Technical support institutions

It is clear from the above discussions that bogged down by outdated models of pedagogy and usual bureaucratic inertia National Institutes of Rural development (NIRD) and State Institutes of Rural development (SIRD) have not been able to bridge the demand-supply gap in training needs of MGNREGS staff. There exist a huge gap in training system, characterized by the following: Training institutions has very little practical experience of doing what they are training in and have very little touch with the intricacies of ground-level realities, implementation and social engineering; Training institutions are located at a geographical distance, far removed from where the actual development intervention is scheduled to take place; These institutes are run by personnel who speak a language which is largely incomprehensible to the people and whose attitude is didactic rather than dialogic, and who seem to lack the passion for the work which their training will enable; and There is little follow-up in the field to ensure that the benefits of training are materialized at the field-level for which it was meant; and there is near absence of any kind of role assigned to Civil Society Organizations (CSOs) in this crucial area. (CEGC, 2010). Considering the studied blocks, presently, inadequate or no training is provided to GRSs. In Mokhada block, training

in Mokhada Panchayat Samiti in Aug 2008 was conducted (Refer Annexure 8). It is observed from the interaction with GRSs that it was just a mere meeting in Panchyat Samiti office and discussion in meeting was considered as training. Similar is the situation in Jawhar block. A one day training at Jawhar Shramik Janta Sahakar was organized which obviously do not count as training. Recently, MKCL e-learning Training in Success Computer institute (in Mokhada) and Siddhi computer institute (in Jawhar) for e-Governance is live which merely trains them in online e-muster filling. This training doesn't complement to the role and responsibilities of GRS. Rest during the interaction, Sarpanch and TAs could not cite any kind of training to them in context of MGNREGS implementation. At this point of discussion it is worth referring to the working group report of CEGC on capacity building, which says, the so-called crisis of 'capacity building' has, in part, been caused by "demand over load" and in part caused by "supply- side -distortions' due to the complexity of multilevel implementation from the Centre to GP. This has further been aggravated by 'astronomical numbers of stakeholders' that demand not only a robust structure of personnels but also a well defined strategy to develop the capabilities of these stakeholders to perform the assigned tasks efficiently and effectively. According to a note submitted to the Working Group by NIRD, the tentative estimate of the number of stakeholders in the implementation is more than seven millions. And a tentative training estimate informs that the current coverage is about 1.5 to 2.0 millions. A note by Ministry of Panchyati Raj on the Capacity Building for PRIs also comments that "the 28.5 lakh elected representatives including Sarpanch and eight lakh key officials who deal with or work under the Panchayats, are all poorly trained.". In this the role of SIRDs and NIRD become crucial. However, considering the lack of cutting-edge research environment that NIRD suffers from and the comatose in which SIRDs have entered into, it is almost impossible to think that training needs of key Officials/Staff of MGNREGS and PRIs functionaries could be undertaken without an innovative "government-civil society' partnership. (CEGC, 2010). Having discussed the first two aspect of study in details i.e. the technical personnel at block and GP level and their capabilities along with their training needs and inefficiencies of technical support institutes, we now move ahead to section 3.4 discussing the performance analysis of implementation of MGNREGS in the sample blocks.

3.4 Performance Analysis of implementation of MGNREGS

After studying the available personnel and their capabilities in handling the technical tasks through quantitative and qualitative analysis, we now appraise the performance of MGNREGS in the sample blocks through the analysis of secondary data available in public sphere i.e. MIS. The performance analysis is done for three parameters viz. work projection and progress, work execution and yearly work completion rate. These parameters for performance analysis are chosen because the outcomes of these parameters depend on the technical aspects associated with implementation of the MGNREGS that we have considered for our study. Section 3.4.1 gives us insight of the work projection and progress with argument on percentage spill over works in the sample blocks for past two financial years. The work execution analysis presented in section 3.4.2 details the percentage share of work which GPs in the sample blocks are able to handle. Lastly, in section 3.4.3, the yearly work completion rate in the sample blocks for past three financial years is compared. The results from the analysis of the above three parameters clearly indicates the inherit weakness of technical aspects associated with the implementation process of MGNREGS.

3.4.1 Work projection and Progress

Table 3.4 tabulates the total number of spill over work from previous year, total number of new works taken up in current financial year, total number of work in current year, percentage spill over and number of new works proposed in next financial year for the three blocks for three consecutive financial years. The figures for financial year 2012-13 are tentative. By spillover we mean the work which was started but was not completed in the same financial and was carry forward in the next financial year. This non completion and carry forward of works reflects inefficiencies at ground levels. Higher the percentage spillover higher the problems the authorities are facing in execution of works. There can be many factors affecting the completion of work, but the primary problem seems to be non availability of full complement of technical staff for execution of the works. The lack of adequate technical personnel at block and GP leads to poor management of the execution of works thus affecting its timely completion. Such incomplete works then accumulates in the spillover works.

Table 3.4: Work projection and progress**Jawhar block**

Shelf of works Through Which Employment to be Provided	FY	Total No. of Spill over Works From Previous year	Total No. of New Works Taken up in Current Year	Total No.of work in current year	% of spill over	No. of New Works Proposed for next financial year
All Works	2010-11	2265	577	2842	--	2895
	2011-12	929	1997	2926	32.68	1648
	2012-13	3146	128	3274	107.51	1039

Mokhada block

Shelf of works Through Which Employment to be Provided	FY	Total No. of Spill over Works From Previous year	Total No. of New Works Taken up in Current Year	Total No.of work in current year	% of spill over	No. of New Works Proposed for next financial year
All Works	2010-11	1446	255	1701	--	1715
	2011-12	431	1236	1667	25.33	787
	2012-13	995	25	1020	59.68	560

Palghar block

Shelf of works Through Which Employment to be Provided	FY	Total No. of Spill over Works From Previous year	Total No. of New Works Taken up in Current Year	Total No.of work in current year	% of spill over	No. of New Works Proposed for next financial year
All Works	2010-11	42	228	270	--	2544
	2011-12	218	1199	1417	80.74	358
	2012-13	923	104	1027	65.13	2660

As shown in table 3.4, it is evident that while the total number of works in current year increased in financial year 2011-12, there is also an increase in the percentage spillover of works in Mokhada and Jawhar in the subsequent financial year 2012-13. Though the Palghar block shows the decreased percentage spillover of the works, the number is still high as

around 65% of the undertaken works are not complete in financial year 2011-12. The spillover percentage till the financial year 2010-11 was below 50% in all Mokhada and Jawhar, while in Palghar it was around 80%. The situation is reversed after the financial year 2010-11. This sudden increase in percentage spillover in Mokhada and Jawhar raises concern over the inefficiencies of the PRIs in these blocks to handle the number of works taken up for execution. Looking at the data in the table 3.4, it can be seen that the total number of works for Jawhar remains around average 3000 number of works while for mokhada it remains around average 1462 number of works. Similarly, for Palghar, the total number of works remains around average 1222 number of works considering last two financial years. The figure for total number of work for a particular financial year comes from addition of new works taken up and spillover from previous financial year. It can be seen from data that due to increased spill over in the financial year 2012-13, there is reduction in the new works taken up in all the three blocks in order to keep the total work within the manageable limits of available technical personnel.

3.4.2 Work Execution Analysis

It is by guidelines that 50% of the MGNREGS works are to be implemented by GP and 50% by other implementing agencies. Referring to the table 3.5, it can be seen that MGNREGS implementations have even failed on this front in all the three blocks. While the figures for the Palghar block are little bit appreciating compared to other two blocks, it is still questionable that how the block which has low MGNREGS activities due to availability of other job options is performing fairly. The question surely does not deny the possibility of the inefficiencies persisting in the Palghar block. The works execution analysis data for Mokhada and Jawhar clearly shows that GPs still have a long way to go to be capable of handling and executing 50% of MGNREGS with full efficiency. This is quite evident that absence of any kind of technical staff in GP as well as its dependence on the block level technical staff hampers the performance of GP to its fullest in the process of implementation of the scheme. Also these inefficiencies which persist with GPs add to the burden of execution of works at block level. The block level agencies i.e. the line department has to perform for GPs share of work in addition to its own 50% allotted works. The whole process of implementation has become so concentrated at the block level that it is seems that it is

wrong to say that GPs are the key implementation agency in MGNREGS. The average work execution level under GP in Jawhar and Mokhada block is 11.77% and 12.03% respectively. For Palghar block, the average work execution level under GP is 26.74% which is appreciable compared to the other two blocks. Also it can be seen that the number of works executed under GP shows increasing trend but at an unnoticeably slow pace.

Table 3.5: Work execution level analysis

Jawhar block

Shelf of works Through Which Employment to be Provided	FY	GP		Other Impl. Agency	
		No. of works (%)	Expenditure (In lakhs) (%)	No. of works (%)	Expenditure (In lakhs) (%)
All Works	2009-10	213(6.5)	2.03(7.69)	3066(93.5)	24.32(92.31)
	2010-11	370(11.35)	23.66(5.3)	2891(88.65)	429.73(94.92)
	2011-12	741(17.47)	113.87(10.59)	3500(82.53)	962.47(89.41)

Mokhada block

Shelf of works Through Which Employment to be Provided	FY	GP		Other Impl. Agency	
		No. of works (%)	Expenditure (In lakhs) (%)	No. of works (%)	Expenditure (In lakhs) (%)
All Works	2009-10	212(12.61)	6.65(3.24)	1469(87.39)	209.28(96.76)
	2010-11	274(16.09)	27.04(22.13)	1429(83.91)	94.86(77.87)
	2011-12	123(7.41)	11.42(22.13)	1538(92.59)	247.79(95.75)

Palghar block

Shelf of works Through Which Employment to be Provided	FY	GP		Other Impl. Agency	
		No. of works (%)	Expenditure (In lakhs) (%)	No. of works (%)	Expenditure (In lakhs) (%)
All Works	2009-10	55(25.94)	0.84(20)	157(74.06)	3.75(80)
	2010-11	76(17.71)	NA	353(82.28)	NA*
	2011-12	519(36.58)	61.37(20.96)	900(63.42)	229.46(78.69)

*Not Available

3.4.3 Yearly Work Completion rate

The third parameter which we look upon in order to quantify the performance of the scheme in the selected three blocks is the yearly work completion rate. It is simply the ratio of completed works to the works started in a particular financial year. It is not surprising that hampered performance in work projection and progress analysis and work execution level analysis will reflect poor results in yearly work completion rate analysis. As seen from table 3.6, the work completion rate in all the three blocks is decreasing consistently from past three financial years. The work completion rate has significantly gone below 50% in the last financial year both blocks and district levels. It is quite evident from the data table 3.6 that the completion of works is not able to keep pace with the rate at which the numbers of work are initiated. This situation reflects serious problems associated with the implementation of MGNREGS at PRI levels which are implicating these results. The most important is the inadequacy of the technical personnel and support to them. The heart of MGNREGS is execution of planned works which only can be completed with the help of full complement of availability of technical personnel at all PRI levels and support of technical institutes to them. Without the completion of works, the wage cannot be computed. This affects the job seeker who may not get his wage which hampers the main objective of the scheme which is augmentation of wage employment.

Table 3.6: Yearly work completion rate

Region	FY	No. of Works started	No. of Works completed	Work Completion Rate (%)
Mokhada	2009-10	420	299	71.19
	2010-11	273	190	69.59
	2011-12	1410	644	45.67
Jawhar	2009-10	614	535	87.13
	2010-11	641	390	60.84
	2011-12	2234	650	29.09
Palghar	2009-10	199	184	92.46
	2010-11	257	192	74.70
	2011-12	1330	323	24.28
Thane	2009-10	2671	2174	81.39
	2010-11	2829	1879	66.41
	2011-12	15288	4043	26.44

3.5 Summary

This chapter has presented the assessment of technical aspects of implementation of MGNREGS through quantitative, qualitative and performance analysis of the data for three sample blocks. With inadequate number of technical personnel, there persists a “Technical Capacity Deficit” problem at the block and GP levels for execution of MGNREGS works. Due to the non availability of trained technical personnel at the GP level (that is supposed to be the main implementer) the GPs are dependent on higher levels of Block and District levels for technical know-how. The role of technical support institutions in enhancing the technical capability of these stakeholders at block and GP level is the least discussed agenda in context of implementation of MGNREGS. The success of MGNREGS banks on the timely execution of planned works which can only be completed by ensuring availability of technical personnel at all PRI levels with support from technical institutions. The complete assessment gives strong indication of deteriorating performance of MGNREGS over the period of time due to absence of inadequate efforts in enhancement of the various technical aspects related to implementation.

Chapter 4 –Engineering Analysis of MGNREGS Works

The chapter on engineering analysis of the MGNREGS works is included to evaluate status of the works and discuss the problems associated with it. This analysis focuses on the usefulness of the works which can be defined based on the factors such as purpose for which the structure is created and benefits emerging out of the structure for the community. For this we need to evaluate the status of the work on work sites and see whether the structure is constructed in adherence to the guidelines and as per the specifications in the estimation sheet. The chapter provides insights of how the process is flawed in its basic assumptions in carrying out the technical task of execution of works i.e. from the identification of site till the commissioning of work. This cost of this basic flaw, is too huge, and is paid by environment in terms of degradation and loss of its rich natural resources. We first discuss the status of works in six sample GPs in section 4.1 and in subsequent sections, discuss three structures, one from each category of rural connectivity (i.e. kutchha road and road side gutter), water conservation (i.e. vanrai bhandhara) and land development (i.e. mazgi). The problems associated with these structures which were identified on the worksites are also discussed in corresponding sections. The data was collected by the author as part of the social audit process conducted by Aroehan from 3rd May 2012 to 10th May 2012 in Mokhada block for 6 GPs viz. Shivali, Gomghar, Palsunda-Saturli, Udhale-Vadpada, Chas, and Vashala.

4.1 Status of MGNREGS works in 6 GPs

Table 4.1 tabulates the MGNREGS works in the financial year 2011-12 for 6 GPs. A total of 250 works were taken up in these sample GPs. The works can be classified under following categories viz. rural connectivity (road, road side gutter and patti), water conservation (well, vanrai bhandhara, stone bund, nalla bund, farm pond), land development (mazgi) and social forestry (nursery, tree plantation). The engineering analysis of few works comprise of measurement of works and assessment of the quality of works. Most works which are taken up are related to water conservation, land development and rural connectivity. We choose one structure from each category to discuss briefly about it ands and problems associated with it. Table 4.2 tabulates the completed work, amount spend on completed work and useful works based on the work site survey.

Table 4.1: MGNREGS works in the financial year 2011-12 in 6 GPs (Source: (Aroehan, 2012))

GPs/Works	Mazgi	Nursery	Roadside Gutter	Roadside Patti	Well	Tree plantation	Road	Vanrai Bhandhari	Stone Bund	Nalla Bund	Farm pond	Total Works
Saturli	8	2	5	0	14	0	1	14	14	0	0	58
Vashala	3	1	2	0	1	0	5	14	0	0	0	26
Chas	5	1	2	1	1	1	3	14	4	1	0	33
Shivali	0	2	1	0	2	0	2	25	0	0	0	32
Gomghar	21	1	0	1	0	1	11	36	0	0	1	72
Udhale	0	1	3	1	0	1	3	3	0	0	17	29
Total works	37	8	13	3	18	3	25	106	18	1	18	250

Table 4.2: Completed works and useful works in 6 GPs (Source: (Aroehan, 2012))

GPs/works	Total Works	Completed works	Amount (Rs.) (skilled and unskilled)	Useful Works	% of useful works
Saturli	58	44	3348368	Cannot determine	Cannot determine
Vashala	26	26	4235316	14	53.8
Chas	33	32	2771924	5	15.6
Shivali	32	32	817611	25	78.1
Gomghar	72	63	59950016	26	41.2
Udhale	29	28	1757836	3	10.7

It can be seen from the table 4.2, for 5 GPs taken together, on an average only 40% of works can be called as useful works, rest 60% of works are done to provide jobs. It is also difficult to call these useful works as an asset, since the scope of word 'asset' is broad in terms of its definition. An asset is anything that has productive value. The work which has a defined purpose with benefits to community can be called an asset. A work can be counted under asset only after time based monitoring and evaluation and hence a matrix for quantification of benefits of the work has to be defined. Hence, not all useful work can be counted under asset which means the number of assets lies below the 40% of the completed useful works.

This again points to that the MGNREGS implementation majorly focus on job creation without understanding the core guidelines of the scheme which stresses on creating ‘durable assets’ which creates sustainable livelihood for communities. The cost of this basic flaw in implementation of MGNREGS works, is too huge, and shall be paid by environment in terms of degradation and loss of its rich natural resources. In sections 4.2, 4.3 and 4.4, we now discuss three structures and the problems associated with them.

4.2 Kutcha Road and Road side gutter

Kutcha road and road side gutter falls under the category of rural connectivity. According to the guideline the kutcha road must be a gravel road or water bound macadam road. Section 4.2.1 briefly discusses the structure of kutcha road and road side gutter. In section 4.2.2, the problems identified on the worksites are discussed.

4.2.1 Brief description

Figure 4.1 and 4.2 provides the design diagram for the kutcha road and road side gutter. Typical dimensions are put in the diagram. The kutcha road has a 3 layer viz. soft murum layer, stone layer and hard murum. Figure 4.2 illustrates activities involved in construction of road in irregular terrain and a hilly slope. The simple parameters which need to be measured in context of road constructions are length, width and height. Other parameter is the slope which is measure of change in elevation. It is a crucial parameter in several well-known predictive models used for environmental management, including the Universal Soil Loss Equation and agricultural non-point source pollution models. One way to express slope is as a percentage. To calculate percent slope, divide the difference between the elevations of two points by the distance between them and then multiply the quotient by 100. The difference in elevation between points is called the rise. The distance between the points is called the run. Thus, percent slope equals $(\text{rise} / \text{run}) \times 100$. The activities involved in construction of road and road side gutter are:

- Clearing the road side width including the cutting of bushes, removing the small and medium size stones and boulders
- In case of irregular terrain, cutting and filling activities are involved

- Excavation for road way gutter lead upto 10 m and lift upto 1.5 m
- Bandaging the metal layer
- Watering and compacting hard murum for leveling
- Tools, shelter, first aid, water etc = 2.7% of labour component
- 12% on planning and execution of total mount
- Providing and fixing boards
- Wage calculation:
 - Total Amount of work = Volume of work X Schedule of rates (SoR)
 - Mandays generated= Number of labours * Number of days
 - Wage = Total Amount of work/ Mandays generated

4.2.2 Problems

The most important thing to understand in building and maintaining roads are drainage. But, too often, this critical issue is ignored when building and maintaining local roads. When drainage is poor, the best efforts to rehabilitate or maintain roads will bring disappointing results. When water can be drained off of road surfaces and out of roadbed soils, the road will invariably become easier to maintain. Lack of a roadside gutter has caused major drainage problems on this road. The most important and common drainage structure needed is the roadside gutter. Every effort must be made to maintain a minimal gutter. If the gutter becomes obstructed from eroded soil or debris, it must be cleaned. Figure 4.4 clearly shows that roadside gutter lies above the road. It can be seen that no technical guideline is followed while carrying out the work. The rain will wash off the soil present on the open end of kuccha road in figure 4.5 as no shielding (see figure 4.3) with stones and small boulders is provided to the soil on the open end. The structure will be damaged in monsoon and will stand useless for commuting, but will ensure loss of natural resource i.e. soil.

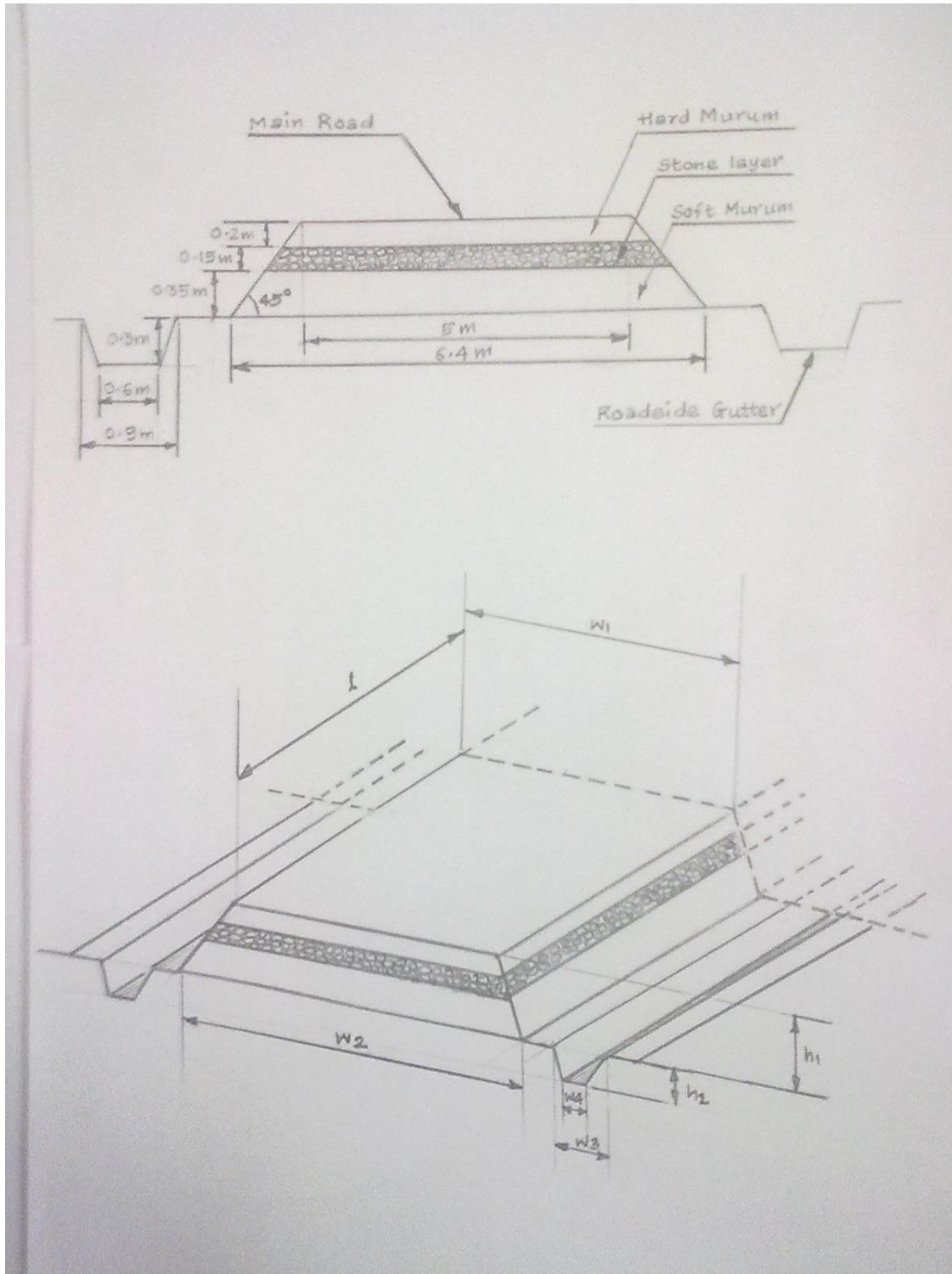


Figure 4.1: Design of kutch road and road side gutter

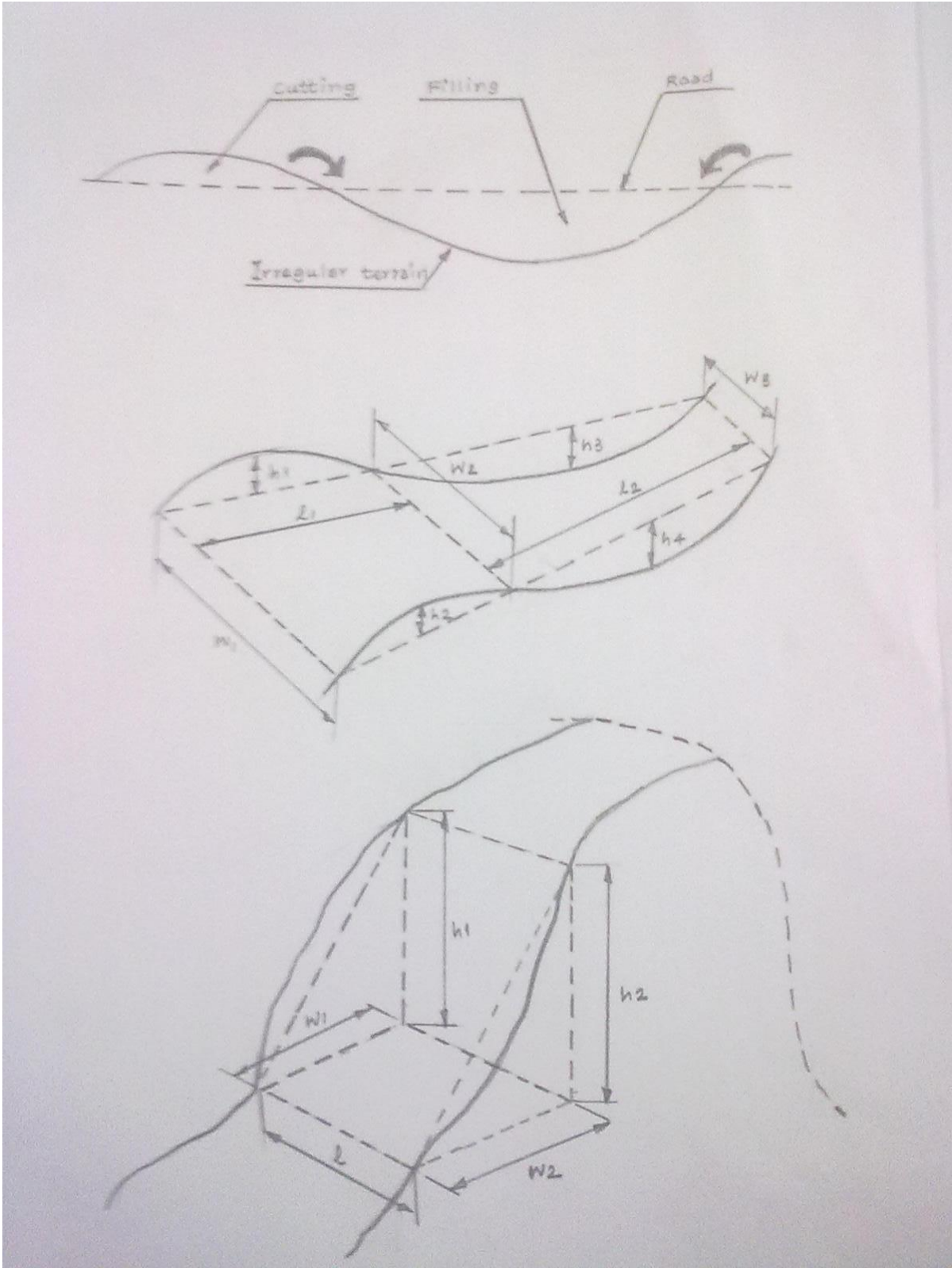


Figure 4.2: Activities and measurement of dimensions in irregular terrain

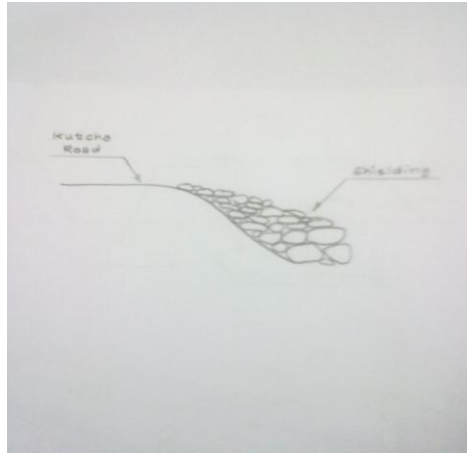


Figure 4.3: Shielding to kutchha road



Figure 4.4: Kaccha road and road side gutter constructed in Washala



Figure 4.5: Other Kaccha road constructed in Washala

4.3 Vanrai Bandhara

Vanrai bandhara falls under the category of water conservation of activity. Section 4.3.1 briefly discusses the structure and the problems are shown in section 4.3.2.

4.3.1 Brief description

Vanarai bandhara or Bunds are constructed across a stream or small river using gunny bags refilled with locally available soil or sand. These bags are sealed properly and are arranged in the form of a wall barrier. This is a temporary structure built across water course to collect the water as well as to reduce the velocity of stream so that infiltration rate of water increases. It helps in replenishing the aquifer below the river bed resulting in increase in ground water level in the surrounding area. Normally Vanarai Bandhara is constructed at the end of monsoon period and it lasts till the onset of the next monsoon. (<http://www.jalvardhini.org/vanarai-bandhara.php>). Figure 4.6 and 4.7 illustrate the design of Vanrai bandhara and expected construction of structure respectively.

4.3.2 Problems

In comparison to the expected structure in Figure 4.7, it clear from Figure 4.8, 4.9, and 4.10 how the system is flawed in its basic assumptions in carrying out the technical part of MGNREGS i.e. from the identification of site till the commissioning of work. In no way these structures are useful in increasing the infiltration rate of water and replenishing the aquifer below the river bed resulting in increase in ground water level in the surrounding area. But such works are adding to the cause of soil erosion⁴¹. This is evident from the figure 4.8. Also construction of Vanrai bandhara at inappropriate sites such as shown in figure 4.9 and 4.10 would lead to soil loss as well as siltation in the concrete bandhara constructed on same river.

⁴¹ As per a documentary video by Ministry of Rural Development and SPS production released in 2007, in India 6.6 billion tonnes of top soil which corresponds to about 5-8 million tonnes of soil nutrients is lost every year due to soil erosion. Soil loss is 30-40 times faster than natural replenishment rate. It takes around 10000 years to form 2.5cm of soil.

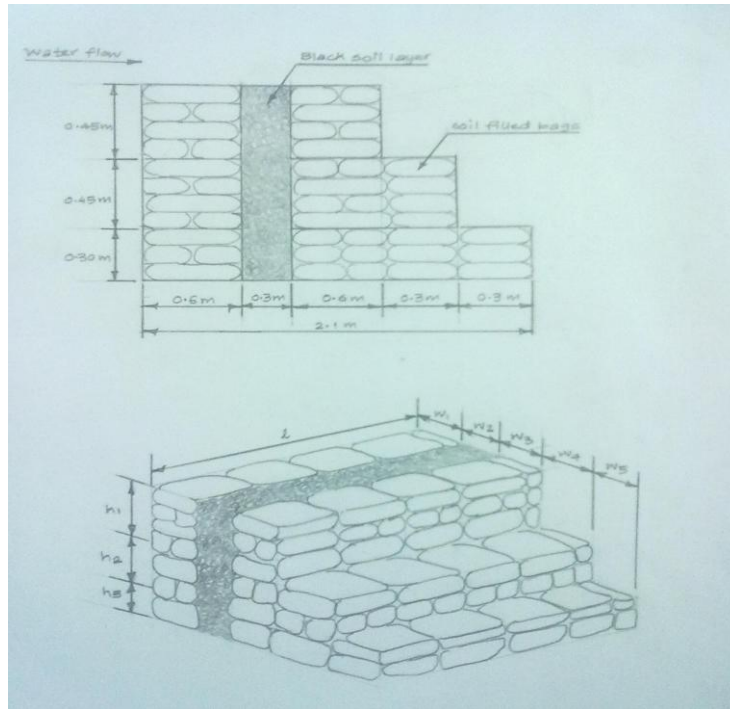


Figure 4.6: Design of Vanrai Bandhara



Figure 4.7: Expected structure (Source: <http://www.jalvardhini.org/vanarai-bandhara.php>)



Figure 4.8: Vanrai Bandhara in Washala, Mokhada



Figure 4.9: Vanrai Bandhara in Palsunda, Mokhada



Figure 4.10: Another Vanrai Bandhara in Palsunda, Mokhada

4.4 Mazgi

Mazgi fall under the category of land development. The structure is described briefly in section 4.4.1 and problems are discussed in section 4.4.2.

4.4.1 Brief description

‘Mazgi’ means terracing of land. In the course of terracing the land, the original slope of the land is flattened and converted into fields for farming. The purpose of adopting this method is to arrest soil erosion. This also helps farmers to add fertilizers uniformly throughout the fields and irrigate the fields properly. Such fields are generally used for paddy cultivation. Three main type of Mazgi are Level Bench Terrace, Inward slopping Bench Terrace and Outward slopping Bench Terrace. Mazgi can be adopted only if following conditions exists: slope of land must be less than 8%, the area must be receiving annual average rainfall greater than 1250 mm, slope of land and depth of soil must be as per shown in following table 4.3:

Table 4.3: Slope of land and Minimum soil depth expected

Slope of land (%)	Minimum soil depth expected (cm)
1	30
2	37.5
3	45
4	52.5
5	60
6	67.5
7	75
8	75

This condition is of utmost importance. If depth of soil is not considered while conducting Mazgi, the converted field would be unusable as it would be bed of stones. Figure 4.11 illustrates the design of mazgi.

4.4.2 Problems

A sample field was measured in Palsunda village (see figure 4.12). The dimensions are shown in figure 4.13. We also measured soil bund height and slope surrounding the sample

field. The dimension of the soil bund is shown in figure 4.14. The measurements were taken with the intention to calculate the volume of soil used in forming bund.

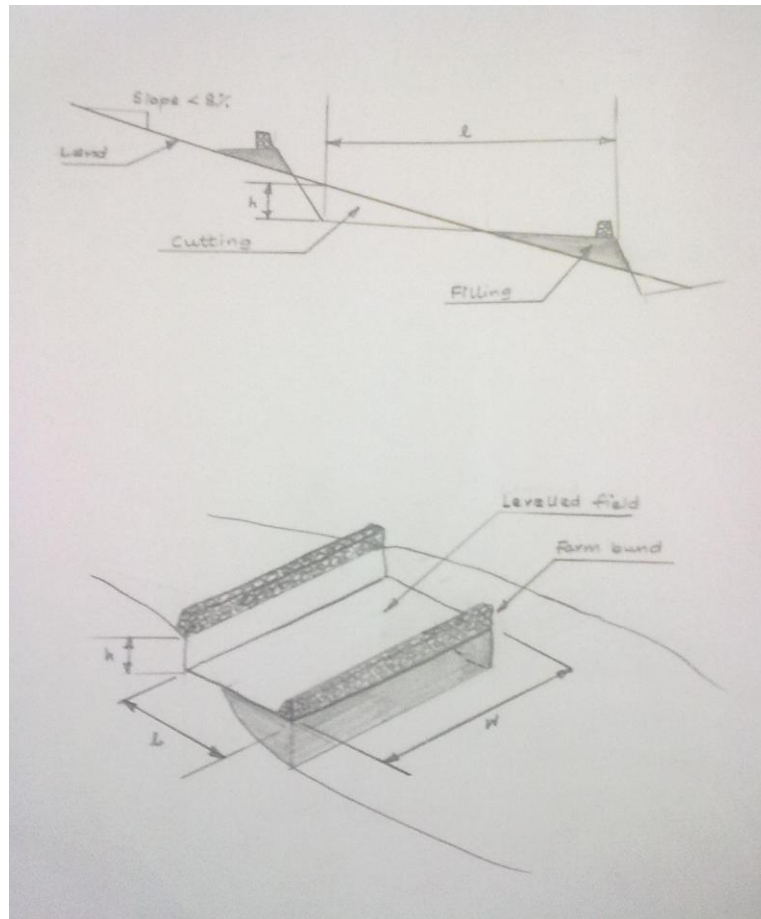


Figure 4.11: Design of Mazgi



Figure 4.12: Mazgi in Palsunda

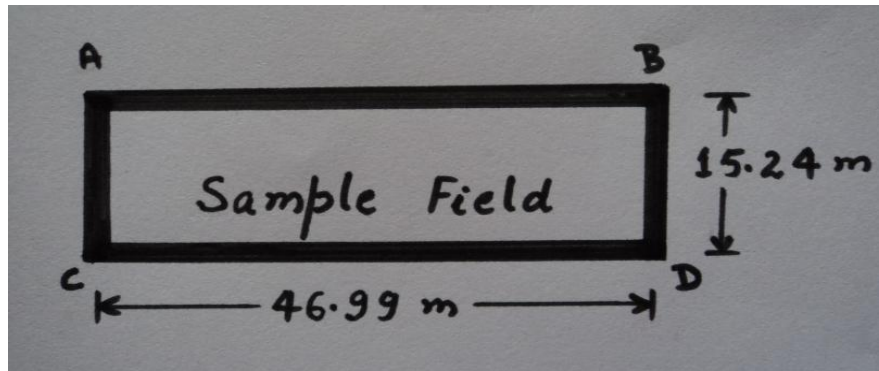


Figure 4.13: Typical sample field measured at Palsunda village

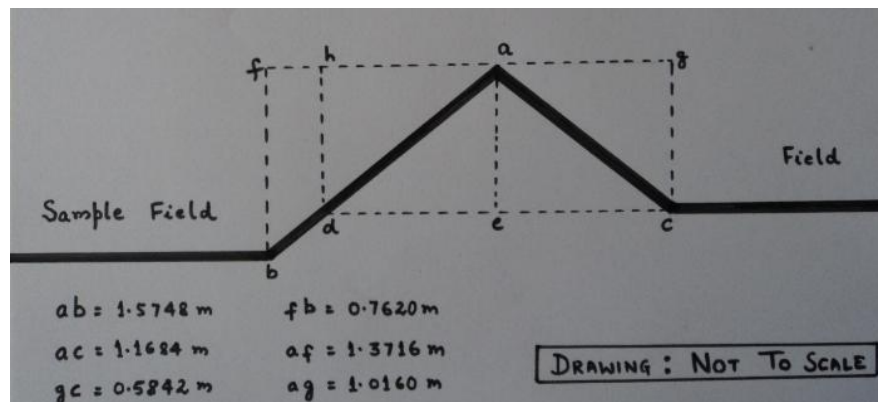


Figure 4.14: Typical measurement of soil bund made around the sample field

Calculation:

- ab, ac, gc, fb, af, ag are in-situ measurements
- For soil calculation in the bund, triangular portion adc is considered here
- ad, hd and ah was not possible to measure so assumption is $ad = ac, hd = gc$ and $ah = ag$
- So area of bund cross section adc

$$= \frac{1}{2} * ae * de + \frac{1}{2} * ae * ec$$

$$= \frac{1}{2} * ae (de + ec)$$

$$= \frac{1}{2} * ae * 2 * ec$$

$$= ae * ec = 0.5842 \text{ m} * 1.0160 \text{ m} = 0.59 \text{ m}^2$$
- Area of sample field = $46.99 \text{ m} * 15.24 \text{ m} = 716 \text{ m}^2 = 0.0716 \text{ ha}$
- Perimeter of sample field = 124.46 m

- Volume of bund soil in sample field = $124.46 \text{ m} * 0.59 \text{ m}^2 = 73.43 \text{ m}^3$
- Assuming that the sample field shares its bund with other two fields at sides CD and BD, the actual volume of the bund soil only for the sample field will be the soil in AB, AC and half of the soil in CD, BD.
- So, actual volume of soil in bund for the sample field only
 $= 73.43 \text{ m}^3 / 2$ (for AB and AC) + $73.43 \text{ m}^3 / 4$ (for CD and BD)
 $= 36.72 \text{ m}^3 + 18.36 \text{ m}^3 = 55.08 \text{ m}^3$
- Thus, height of the above soil if in the field
 $= 55.08 \text{ m}^3 / 716 \text{ m}^2 = 0.077 \text{ m} = 7.7 \text{ cm}$

It can be observed from the calculation that the upper fertile layer of soil which is necessary for cultivation is removed from the field for forming the soil bund around the field. The soil bund in absence of enough strength gets washed away due to rain. Hence the top fertile layer of soil which takes thousands of years to form, as discussed earlier, gets washed away due to rain. This soil then accumulates as silt in the river bed downhill which affects the life of dam. This is huge loss of precious natural resource i.e. soil. The MGNREGS includes various soil conservation works, but due to improper planning of work and execution of works, it leads to heavy soil losses.

4.5 Summary

This chapter on engineering analysis of the MGNREGS works has briefly discussed the status of the works in 6 GPs and then discussed the problems associated with the three structures. Through the identified problems it is evident that the implementation of scheme majorly focuses on job creation without understanding the true spirit of MGNREGS which is creation of durable assets to generate sustainable livelihoods among rural communities. Most of the works are non useable and there is heavy loss of soil every financial year under the name of MGNREGS works. From planning till commissioning of the work many of the technicalities associated with the works are bypassed or neglected in anticipation of completing the work and generating records to update MIS. Thus whole process is paralyzed due to the weakness in technical aspect associated with the implementation of MGNREGS.

Chapter 5 – Concluding Observations and Recommendations

We present our concluding observations of the assessment of technical aspects in implementation of MGNREGS in 3 blocks of Maharashtra viz. Mokhada, Jawhar and Palghar. First, we tried to estimate the required and available number of technical personnel at block and GP levels. Second, we tried to assess the capacity of the available personnel in effectively implementing the works. For this, the perception of various stakeholders in context of technical tasks and their interdependence on each other along with their views about technical support institutions for training, capacity building, monitoring and evaluation were studied. Third, a performance analysis of 3 sample blocks was done taking into consideration those parameters which presents clear picture of the implementation status at block and GP levels. Fourth, an in-depth engineering analysis of some of the works completed show that it is very inadequate without the long term goal of asset creation but just done with an immediate goal of job provision. We now present our concluding observations in section 5.1 and try to formulate some recommendations, discussed in section 5.2, in order to strengthen the studied technical aspects of implementation of the scheme.

5.1 Concluding observations

- Through the quantitative analysis it is clearly evident that there is inadequate number of technical personnel at block level and absence of technical personnel at GP level. Even the inadequate number of technical support staff available are on contractual basis and hence with a large turn over.
- The deployment of engineers must be based on the demand of jobs over the current condition of the population of rural household as specified in the operational guideline of MGNREGS.
- The ratio of work/amount an engineer should handle is not clearly defined anywhere. The data also reveals that the engineers handling blocks with larger tribal population are burdened heavily with the number of works making them more accountable than the engineers in block which has lesser tribal population.

- The qualitative analysis clarified that there is lack of technical know-how to take advantage of the benefits of the MIS. The soft skills needed for planning (like knowledge of participatory methods i.e. resource mapping through transect walk0 is lacking with the GP personnel.
- The design and estimates for similar structures are done based on previous experience without even visiting the site for checking the feasibility and specificity of worksite for a particular structure. Following such procedures for design and estimates clearly indicate that it is not an asset which is designed but just a structure for job provision.
- Monitoring and evaluation of processes involved in the implementation of the schemes are neglected. If it has to be done for some audit or reporting, the Block personnel generally rely on reports from MIS.
- National Institutes of Rural development (NIRD) and State Institutes of Rural development (SIRD) have not been able to bridge the capacity gap in MGNREGS implementation.
- The lack of adequate technical personnel at block and GP levels lead to poor quality of works and timely completion leading to sill over and a vicious circle of deteriorating performance.
- The engineering analysis of the works clarified that the implementation of schemes majorly focuses on job creation without understanding the true spirit of MGNREGS which is creation of durable assets to generate sustainable livelihoods among rural communities. Most of the soil and water conservation works are failing leading to heavy loss of soil.

Based on the above discussed concluding observations, we now present some recommendations in section 5.2 in order to mitigate problems identified and strengthen the technical aspects of implementation of MGNREGS.

5.2 Recommendations

- Ensuring adequate number of technical personnel at PRI levels and providing them with adequate capacities to execute the works are the priorities in ensuring successful implementation of MGNREGS to fulfill the twin goals of assuring rural employment along with creation of durable assets.
- A comprehensive HR policy must be formulated for lowest level contract staff like TA at the Block Level and GRS at the GP level with attractive work conditions to arrest the current high turnover rates affecting sustainable skill building.
- To overcome the problem of shortage of technical support staff at the field level the authorities at the GP level must be allowed to recruit locally qualified people and train them under the line department engineers/TAs and employ them as technical mates or barefoot engineers for measurement and technical supervision of MGNREGS works.
- For successful implementation of MGNREGS it is necessary to clearly define the workload and responsibilities (with role clarity) to ensure accountability of engineers and lower level staff for handling the execution, monitoring and evaluation of works thus ensuring durability of the assets created.
- Technical capacity building material already available on MGNREGS website⁵¹ should be referred to design the appropriate technical capacity building modules for technical personnel at various level of PRI.
- Specific training modules as per the roles and responsibilities of each stakeholder must to be designed by training institutions ensuring perspectives to internalize the philosophy and skills to execute the expected responsibilities to the fullest.

⁵¹ http://nrega.nic.in/Netnrega/Data/SPS_Watershed_Works_Manual_Eng.pdf

References

- Aggarwal, A., Gupta, A., & Kumar, A. (2011). Evaluation of NREGA Wells. *EPW*, XLVII(35), 24-27.
- Ambasta, P., Shankar, P. S. V., & Shah, M. (2008). Two Years of NREGA: The Road Ahead, 41-50.
- Aroehan. (2012). Report on Social Audit Pilot process in Mokhada , Dist : Thane, (May), 1-9.
- CEGC. (2010). *Final Report of the Working Group on Capacity Building* (Vol. 1).
- CIFE. (2009). *A Study Report on Appraisal of NREGA Programme in Thane and Akola District of Maharashtra. Development.*
- Deshpande, P. (n.d.). *Report on BAIF Mitra's efforts for promoting Tribal livelihoods in Jawhar taluka by Intensifying Agriculture using water.*
- Kumar, M. D., Bassi, N., Sivamohan, M. V. K., & Niranjana, V. (2011). Employment Guarantee and Its Environmental Impact - Are the Claims Valid? *EPW*, 69-71.
- Lokhande, N. A. (2011). *Evaluation of the Performance of MGNREGS in Maharashtra – A Multi-Criteria Analysis.*
- MoRD. (2008). *The National Rural Employment Guarantee Act, 2005 - Operational Guideline* (Vol. 2005).
- NCAER - PIF. (2009). *Evaluating Performance of NREGA.*
- Raabe, K., Sekher, M., & Schiffer, E. (2010). How to Overcome the Governance Challenges of Implementing NREGA Insights from Bihar Using Process-Influence Mapping.
- Shah, A., & Mehta, A. K. (2008). Experience of the Maharashtra Employment Guarantee Scheme: Are there lessons for NREGS?
- Shah, M. (2012). *Report of the Committee for Revision of MGNREGA Operational Guidelines.*

Annexure 1: Important Letters and Circulars

S. No.	Reference	Subject	Content
1	No.M-11011/128/2008-P&C	NREGA and the Role of Panchayati Raj Institutions (PRIs).	<p>(B) Enabling Panchayats through essential Staffing and Infrastructure:</p> <p>(i) Staffing: Inadequacy of personnel in the Panchayats has been the major cause of delays in work execution, measurements and payments; poor quality of works; absence of genuinely bottom-up participatory planning; and social audit. Ministry of Rural Development (MoRD) provides under NREGA (a) for each Gram Panchayat, a Gram Rozgar Sewak, (b) for each Block, One programme Officer, Computer Assistants (CAs), Accountant and a pool of Technical Assistants (TAs) to service GPs, and (c) for each District; Works Manager with TAs, IT Manager with CAs, Accounts Manager with Account Assistants, Training Coordinator and Social Audit Coordinator. MoRD has enhanced the limit of administrative expenditure from 4% to 6% to enable expansion of such technical and administrative support. Similarly, BRGF and TFC funds could be used for engaging general support staff to GPs within the respective guidelines. Urgent steps need be taken to deploy essential staff such as Accountants, Gram Rozgar Sewaks, “Barefoot Engineers”, Data Entry Operators, Coordinators for social audit and grievance redressal etc. according to the need/size/terrain etc. of the Panchayats.</p> <p>(ii) Role clarity: Key GP functionaries should be familiarized with their roles and responsibilities along with precise accountability. This may be facilitated through clear “Job Charts”.</p> <p>(iii) Gram Rozgar Sewaks (GRSs): Being the linchpin of NREGA at the GP level, active and accountable GRSs can make a major difference. Their quality, motivation and skills need to be developed and sustained through careful selection, training, technical support, incentives and clear accountability.</p> <p>(iv) Technical Manpower, etc: The GPs are too dependent on the Block Development Officers (BDOs) and Junior Engineers (JEs) in the preparation of plan and estimates, measurement of works etc. GPs would, therefore, need</p>

			<p>not only competent GRSs, but also Technical Assistants and work site supervisors (Mates), selected and trained at the GP level within the State guidelines and accountable to the GSs through GPs.</p> <p>(v) ICT and Office Management: The key role of ICT in the full cycle of NREGA is universally recognized. We already have schemes of e-governance in Panchayats (e- PRI) and Common. Service Centres (CSCs) to provide a range of ICT services to the Panchayats & NREGA. e-PRI has in fact the potential to revolutionize the PRIs as symbols of modernity, efficiency and accountability and also induce mass ICT culture. Gujarat, West Bengal etc. have implemented ICT in Panchayats very successfully. AP has done particularly well in using ICT for NREGA. Further, Panchayat offices should be equipped with telephones, photocopiers, fax machines etc. Records need to be maintained properly and shared with public, NGOs, etc. as & when needed. This will also serve the requirements of RTI Act including the proactive disclosure of essential documents.</p> <p>(vi) Technical Manuals: Technical manuals for NREGA works need to be developed in a user-friendly format to facilitate GPs and GSs in the planning and implementation of NREGA works. Some useful technical booklets, films, posters, etc., have already been developed by reputed NGOs such as PRADAN and Samaj Pragati Sahayog.</p> <p>These can be made available to you in requisite quantity on demand. State may also develop similar material, disseminate it on a large scale, and promote its use through training programmes and other means.</p>
2	File.No. M-13015/3/2010-NREGA	Dedicated Manpower for GP	<p>PDO = schedule 1 = Rs. 12000 Panchayat Development Officer</p> <p>JE = Schedule 2 = Rs. 10000</p> <p>Gram Rozgar Sahayak = Accounting + PRIASoft (PRI Accounting software)</p>

			Additional Personnel =Accounts of GP
3	<p>D.O. No. M-12015/1/2010-NREGA (Part) Dated: 16th February, 2010</p> <p>Dear Shri Kumar,</p> <p>Under the Mahatma Gandhi National Rural Employment Guarantee Act technical personnel engaged in the implementation of the Act facilitate in estimation and measurement of works. Inadequate deployment of technical personnel has led to delayed measurement of works and consequent delayed payment of wages to the workers.</p>		

Annexure 2: Discussion, Meetings, Interview Notes

S.No.	Name, Location & Date	Details of meetings
1.	<p>Mrs. Seema Kakade, Prayas (Telephonic Discussion)</p> <p>Date: 20-01-2012</p>	<p>Maharashtra – 5-10 GPs – 1 Technical Assistant District Level – 1 Technical resource panel Maharashtra – Block level outsource JP – Appointment Why the system is not working – Block, GP, Cluster levels - Planning process GP - Resources – Block – Planning process – Gram Rozgar Sevak Line department – water conservation activities handling departments 50% - GP (Funds Allocation for works) 50% - Line Department Planning department – Mantralaya - MGNREGA Principal Secretary – Mah. EGS - Mr. V. Giriraj – Mantralay – 6th floor Nodal Agency EGS Ministry EGS Secretary / Assistant Policy Level – EGS Vibhag – Planning Technical Aspect – Understanding precisely GR, Circulars, GP Documents Mah EGS – Mah. version of NREGA = key strength – throughout year Shelf of Projects if created – Mah. Potential – Inherent strength</p>
2.	<p>Mr. Kalyan Tanksale, M.Tech(TD)</p> <p>(IITB)</p> <p>Date: 25-01-2012</p>	<p>Reform Document – Study – Adequacy – Examine the ground study of Seema Kakade. Is Village level analysis necessary – No – Technical manual What is mean by technical competency? What kind of technical competency a Person working in GP should have? Rural Society Ecology-Environment of Village Natural resource <-> Village –GP Competence – Designing development plan – Manual of Shelf of Project (SOP) – Long/Mid/Short MGNREGS – Should end someday – Poverty alleviation – exit policy Village to village variation Block Development Officer (BDO) – Planning</p>

		<p>Know how levels – Technical, Managerial – Black box What manual should include? Time motion study of work – Meet Ms. Ashwini Kulkarni from Nashik Best and worst practices – Industrial –Human automation- micro detailing of activities Expert – Enquiries So filling gap is technical manual Water conservation – Impact and activities – Practices – Expert comment – Improvement factor – FGD in villages – Minute details – Peoples level of acceptance – What percentage of acceptance – Influence on environment Research Map is first step</p>
3.	<p>Mrs. Seema Kakade, Prayas (S. M. Joshi Foundation, Pune) Date: 26-01-2012</p>	<p>To look into Thane district visit Jawahar through Arohan – Adv. Rahul Tivrekar 9969032497 Meet Mr. Nagesh Hatkar Palghar Data gathering – Block level Visit Yashada – Pune, Baner rd. Nodal agency capacity – Visit V. S. Paage cell GRS are technically weak. A technical training for GRS will be of sure help to enhance the deliverability from system end.</p>
4.	<p>Prof. Subodh Wagle, CTARA – IITB (IITB) Date: 27-01-2012</p>	<p>Work based technical design and administration approach GP identify work – how? Complete documents, procedures, terms and conditions. GP needs technical and economic capability. Can ITI personnel be utilized for the purpose? They can be paid from administrative expense. But study need to judge ITI capability. Assessment to design the training for ITI regarding MGNREGA</p>
5.	<p>Prof. N. C. Narayanan, CTARA – IITB (CTARA office, IITB) Date: 07-02-2012</p>	<p>Have the works identified by panchayats in line with the guideline? At panchayat level: How is demand created? Who creates it? How is demand converted to SOP? Constraints in implementation Capacity gap Technical know-how and managerial</p>

		Quantum of work handled
6.	<p>Mr. Ganesh Gharat, Deputy Sarpanch – Pasthal-Salgaon GP</p> <p>(GP office, Pasthal-Salgaon) Date: 30-03-2012</p>	<p>Monthly meeting is taken – Participants are Sarpanch, Deputy Sarpanch, Gram Sevak, Other members Minimum 50% attendance is compulsory Works for MGNREGS are identified and discussed in the meeting People are not willing to come for the work Reasons: The area is surrounded by industries and connectivity to nearby places is also good. People prefer to do other jobs as they get more earning than the minimum wage ensured in the scheme. We try to hold meetings and bring awareness for those who are in real need of the scheme. But the response of people is not appreciable.</p>
7.	<p>Mr. Sada, Junior Clerk – Boisar GP</p> <p>(GP office, Boisar) Date: 30-03-2012</p>	<p>Not too much of work is undertaken in this GP Nursery was undertaken in Lokhandipada which benefitted 74 families from Dandipada People easily have other options for earning in the area as industry and markets are available locally.</p>
8.	<p>Mrs. Ashwini Raut, Gram Sevika – Kurgaon GP</p> <p>(GP office, Kurgaon) Date: 30-03-2012</p>	<p>We need to show some work on records. Hence some small work like Vanrai Bhandhara, Kuccha road etc. is taken up. People are not keen to work under MGNREGS</p>
9.	<p>Mr. Vithal Malli, Gram Sevak – Shiroshi and Kasatwadi GPs</p> <p>(Panchyat Samiti office, Jawhar) Date: 03-04-2012</p>	<p>Gram sevak since 2007. The entire process of the scheme can be explained using Form No. 1 to 16. Form No. 1: Registration for Job card Form No. 1A: Receipt Form No. 2: Noting in register Form No. 3: Job card with Photo Form No. 4: Job demand form Form No. 5: Receipt (Job to be allotted within 15 days from the date on receipt) Form No. 6: Noting in Job demand register</p>

		<p>Form No. 7: Letter of Job allocation (the worker requested to report to the reporting officer for work within 7 days from the receipt of this letter)</p> <p>Form No. 8: Application for Unemployment Allowance</p> <p>Form No. 9: Approval letter for Unemployment Allowance</p> <p>Form No. 10: Non-Approval letter for Unemployment Allowance</p> <p>Form No. 11: Noting in Unemployment Allowance Register</p> <p>Form No. 12: Monthly Unemployment Allowance Report</p> <p>Form No. 13: Work register</p> <p>Form No. 14: Asset register</p> <p>Form No. 15: Labour budget</p> <p>Form No. 16: Form for claiming central funds and Monthly allotment and utilization certificate watch register</p> <p>A gram rozgar sevak is appointed for every GP who assist work site management and in filling muster rolls. In absence of gram rozgar sevak, a person from the workers is assigned the job. He is then designated as “Mukadam”.</p> <p>In November 2008, a 15 days training was provided from Krishi Vibhag in Nashik. The training was for 67 Gram sevaks from 6 blocks in Thane district viz. Jawhar(15), Talasari(10), Wada(15), Dahanu(15), Mokhada(10) and Vikramgad(12). The course covered: Identification of works and commissioning, Measurement, Trial pit (1m X 1m X 3m) and its estimation.</p> <p>But the training didn't help us alot. It took almost 2 years to understand the process and formulate a strategy on how to implement the scheme in our local setting.</p> <p>Experience speaks: GP must have atleast 1 Technical person for MB recording and Estimation of wages. Presently the Technical person is Engineer from Panchayat Samiti. The Engineer is already overburdened with the work from his parent department and this acts as added responsibility to him. Also a single engineer has to manage multiple GP under the scheme.</p> <p>Most Important: (Muster roll entry + MB recording) => Panchayat Samiti for approval => if approved, worker's wage gets sanctioned.</p>
10.	Mr. Rahul Raut, APO – Mokhada	<p>Working on contract basis</p> <p>Only 1 Engineer from ZP line department for 10 GPs</p> <p>This is added burden on ZP line department engineers. It is not practical for the engineer to visit all works</p>

	(Panchyat Samiti office, Mokhada) Date: 04-04-2012	site in all assigned GPs.
11.	Ms. Shraddha Shringarpure, Project Head – Aroehan (Aroehan office, Mokhada) Date: 01-05-2012	Line departments include Agriculture (Krishi), Irrigation, Minor Irrigation, PWD, Forest and Social forestry. 50 % of fund allocation is to line department and 50% to GP for carrying out the works under MGNREGS. Typical works taken by various departments are: Agriculture (Krishi) – Mazgi, Seth Talav Irrigation and Minor Irrigation - Concrete bhandhara PWD – Pucca and Kuccha Road (Inter-village) Forest – Van Talav, Dagdi Bandh, Nala Bandh Social forestry – Nursery, Tree plantation GP – Kuccha road within village, Well, Earthen bunds, Seth Talav, Vanrai bhandhara
12.	Prof. N. C. Narayanan, CTARA – IITB (CTARA office, IITB) Date: 25-06-2012	Identify the capacity gap: Number of Engineers, TA Assistants and GRS at block and GP level Also identify the works under taken by them number and amount wise Proposal for designing the strategy for enhancing technical capacity at GP level
13.	Mr. A. V. Thule, BDO – Mokhada (Panchyat Samiti office, Mokhada) Date: 26-06-2012	BDO is the Program officer for implementation of MGNREGS under GP. For technical assistance, presently, 8 Engineers from various line departments (PWD(6), Irrigation(1), Water supply(1)) monitor the works carried out in 28 GPs in Mokhada block. On block level, the personnel in MGNREGS cell are on 11 months contract. Training for GRS will commence from 1 st July in Success computers institute in Mokhada. The basic course curriculum is to train GRS in e-muster roll filling.
14.	Mr. Girish Patil, APO – Mokhada;	GRS is selected through Gram Sabha with approval from elected representatives and people. GRS is an assistant to GS. GRS is important person who need to be technical empowered through training. He should be made responsible for the works he carries out. All the people in MGNREGS cell are on contract

	<p>Mr. Deepak Bhole, TA – Mokhada;</p> <p>Ms. Monica Patil, TA – Mokhada;</p> <p>Mr. Azhar Sheikh, Computer Op. – Mokhada</p> <p>(MGNREGS cell – Panchyat Samiti office, Mokhada) Date: 26-06-2012</p>	<p>basis and hence no one can be held responsible in case of any lapses.</p> <p>TAs appointed in MGNREGS cell for assisting Engineers are graduates in Agriculture. They assist Engineers in site selection, measurements, MB recording and MB calculations. No TA/DA are provided. Manpower is less.</p> <p>GRS must be trained. Technical training of GRS must include Soil strata classification, Soil type identification, Basic measurement calculation, Communication skills for reporting and must be provided guideline for solving problems on the site. Make him responsible. Must be minimum qualified as well as experienced. He/she must be recruited on terms of 3 years of contract and then must be made permanent based on performance appraisal.</p>
15.	<p>Mr. Vipul Salunkhe, APO – Jawhar;</p> <p>Mr. A. J. Deevan, JE(PWD) – Jawhar;</p> <p>Mr. M. M. Sheikh, Gram Sevak – Sarsun GP</p> <p>(Panchyat Samiti office, Jawhar) Date: 27-06-2012</p>	<p>GRS needs help from GS. Main tasks of GRS are Attendance, work site management and muster roll entry and deliver it to APO office for data entry into MIS. GS is very much overloaded with his routine work.</p> <p>Primary tasks of GS are: Arranging Monthly Sabha and Gram Sabha Issue Birth, Death, BPL, Nationality certificate School, Health and Infrastructure related activities Tax – Residential, Water Grievance redresal and Social Audits Works of various schemes – Total Sanitation, Indira Awas, Samaj Kalyan, SGYS, Agriculture 13th finance amendment – Central Government – Implementation for development of GP GRS are of no good help as we need to explain them everything and even if they perform their task we need to recheck it.</p> <p>GS is held responsible finally in social audits for any mistakes in the documentation.</p> <p>The problem is presently GRS is just a person appointed in Gram sabha and is paid 2.25% of the amount for the works he monitors. He stands outside the system and hence is held least responsible and accountable. If the GRS is made official government employee in GP then he would do his job with diligence and can be held responsible as well as accountable for the work he does. This will also ensure that he get monthly salary and other government facilities and hence would contribute towards his duties with responsibility.</p> <p>A minimum basic qualification has to be the criteria and the candidate must undergo 3-6 months rigorous training course before he takes in charge. GP ⇔ GRS ⇔ MGNREGS Cell</p>

16.	Mr. Paritosh Sankhe, APO – Palghar (Panchyat Samiti office, Palghar) Date: 28-06-2012	Palghar block is industrialized hence less work is undertaken as people don't demand jobs. Also capacity building has to be based on the population of areas as well as demand for jobs.
-----	--	---

S.No.	Event & References	Details
1.	Social Audit Mokhada Date: 10-05-2012	Social Audit was conducted for 6 villages – Shivali, Gomghar, Chas, Washala, Palsunda-Saturli, Udhale-Vadpada Attendance > 100 people Official present – Tehsildar, BDO, Engineers, Academicians No officials from Post office Issues identified: GRS – 2 Jobcards in his name Bogus muster roll Work not done – still measurement exists in MB People didn't work, but names appears in muster Online data entry fault Software problems – limits the entry after stiputed time??? MB book measurement issues – entry issues MB book incomplete entries (i.e. header of MB book) Widow was denied to work Incomplete work Identification of work site is an issue Post office passbook not issued to people Asset not durable Recommendations: Formats needed for filling MB

		<p>General awareness of people Unresponsiveness of GRS to people Appropriate and unique names (instead of numbers) to be provided to the structures to avoid ambiguity – a simple and uniform coding system may be developed Specifications to be included while writing the Measurement Book</p>
2.	Notes from Books and papers	
A.	Issues in local governance – S. N. Singh	<p>History of local governance is from 1870 – Lord Mayo’s resolution Local governance – Structure, financial resources, powers, attitude PRI – directly associated with programmes of National reconstruction as 80% of population is still in villages Challenges: Evolving a system for equipping the local leadership in art of management Associating political parties in larger measures with definite local programs Improving image of local bodies Making local government efficient and effective</p>
B.	GP Organisation – Effective management for Rural development – G. L. Ray and Sagar Mondal	<p>GP – Local self government at lowest level Organisational management – key to effective rural development Indicators – Effective management of people – Effective management of work</p> <p>Management problems – planning, financing, organising, leading, controlling</p>
C.	Political Economy of Development in India – Pranab Bardhan	<p>India – poorest country – poverty alleviation – primary goal – to achieve through planning – 5 years plan. Several programs through planning – Mah. EGS etc. But facilities < Total minimum required Also funds for programs = Significant fraction of government budget</p>

		<p>Problems</p> <ul style="list-style-type: none"> - Development of adequate administrative delivery infrastructure - Associated managerial and organizational bottlenecks - Finance - Leakages of funds and benefits => political weakness of intended beneficiaries <p>Categories of poors – Small farmers, Agricultural labourers, Artisans, Petty traders, Casual non agricultural workers</p> <p>Benefits of economic growth => Does it trickle down to poor?</p> <p>Income inequality – high in India – more oppressive on poors in India.</p>
<p>D.</p>	<p>NREGA – Will it reduce poverty and boost economy? – Disa Sjoblom and John Farrington</p>	<p>International scenario:</p> <p>Finding the missing link between employment schemes and poverty reduction goals</p> <p>Need of exit policy in employment schemes. Eg.</p> <p>Argentina – compulsory enrollment to schools and immunization of children</p> <p>South Africa – help individuals to seek employment after they have done public works</p>

Annexure 3: List of Engineers from various line department, assigned GPs and works (Number and Amount wise) handled by them in Mokhada Block

S. No.	Name	Designation	Department	No. of GP Assigned	GP Assigned	No. of New works proposed for financial year 2012-13	Persondays to be generated	Total Cost (Rs.) Lakhs
1	N. G. Kokate	Section Engineer	PWD	3	DANDVAL	20	11160	23.61
					HIRVE	20	30033	63.56
					POSHERA	20	62020	131.28
2	S. A. Sawant	Section Engineer	PWD	3	KURLOD	20	27669	58.56
					SHIVALI	20	7045	14.92
					VASHALA	20	23040	48.76
3	S. S. Daberao	Section Engineer	PWD	3	GOMGHAR	20	35381	74.9
					KHODALA	20	3395	7.19
					KINISTE	20	8590	18.19
4	V. P. Borse	Section Engineer	PWD	4	AASE	20	75342	159.47
					BERISTE	20	21189	44.85
					CHAS	20	31370	66.4
					MOKHADA	20	19440	41.15
5	S. G. Chavan	Assistant Engineer	PWD	4	KASHTI	20	18101	38.3
					SAYADE	20	27256	57.7
					SURYAMAL	20	16661	35.26
					UDHALE	20	14144	29.94
6	R. D. Pandit	Junior Engineer	PWD	4	DHAMANSHET	20	33120	70.1
					KAREGAON	20	15156	32
					KAROL	20	18308	38.75
					SATURLI	20	25817	54.65
7	S. S. Khadri	Junior Engineer	Water Supply	4	ADOSHI	20	14708	31.14
					BOTOSHI	20	32555	68.9

					KHOCH	20	23811	50.4
					NASHERA	20	14915	31.56
8	S. V. Kambait	Junior Engineer	Irrigation	3	DOLARA	20	8280	17.53
					MORHANDA	20	22576	47.8
					SAKHARI	20	18205	38.54

Annexure 4: List of Engineers from various line department, assigned GPs and works (Number and Amount wise) handled by them in Jawhar Block

S. No.	Name	Designation	Department	No. of GP Assigned	GP Assigned	No. of New works proposed for financial year 2012-13	Persondays to be generated	Total Cost (Rs.) in Lakhs
1	N. N. Runmale	Section Engineer	PWD	7	BHURITEK	24	12959	27.44
					KELGHAR	21	12495	26.45
					KOGADA	20	31220	66.08
					NANDGAON	19	41094	86.99
					NYAHALE (K)	20	24325	51.5
					NYAHALE(B)	21	32192	68.15
					RAYTALE	21	8380	17.75
2	N. S. Mohite	Section Engineer	Minor Irrigation	5	AAKARE	20	41550	87.95
					CHAMBHARSHET	21	41864	88.6
					DENGACHIMET	19	26949	57.05
					PIMPALSHET	19	60476	128
					TILONDA	18	15119	32
3	U. S. Aandhle	Section Engineer	Irrigation	7	DABHERI	24	33222	70.31
					DEHRE	24	15894	33.65
					DHADHARI	20	30294	64.11
					KAYARI	20	3345	7.08
					RUIGHAR BOPDARI	19	41961	88.81
					VADOLI	19	8949	18.95
					VAVAR VANGNI	19	95400	201.94
4	Waghmare	Section Engineer	PWD	8	BARWADPADA	24	10441	22.1
					DABHALON	23	6020	12.65
					DABHOSA	24	12136	25.7
					DASKOD	24	22578	47.8

					KIRMIRA	21	3392	7.19
					KORTAD	20	13475	28.51
					OZAR	20	13780	29.17
					TALASARI	19	6736	14.25
5	A. J. Deevan	Junior Engineer	PWD	9	BORALE	21	16355	34.61
					DHIVANDA	20	15222	32.22
					GORTHAN	20	39033	82.61
					HATERI	18	23967	50.74
					HIRADPADA	20	13780	29.17
					JAMSAR	20	13681	28.95
					KHADKHAD	21	15119	32
					SARSUN	19	40319	85.34
					VINVAL	20	12396	26.25
6	D. S. Pawar	Junior Engineer	PWD	7	APTALE	27	26792	56.71
					DHANOSHI	20	22422	47.45
					KAVLALE	20	15119	32
					PATHARDI	20	28076	59.44
					SAKHARSHET	17	17792	37.66
					SAKUR	17	19645	41.58
					ZAP	20	30033	63.56
7	S. M. Vani	Junior Engineer	PWD	7	AINE	27	22167	46.92
					AYARE	29	19955	42.25
					CHOWK	25	15530	32.86
					JUNJAWHAR	19	27306	57.8
					KASATWADI	19	67010	141.84
					SHIROSHI	18	23864	50.5
VALVANDA	19	17276	36.56					

Annexure 5: List of Engineers from various line department, assigned GPs and works (Number and Amount wise) handled by them in Palghar Block

S. No.	Name	Designation	Department	No. of GP Assigned	GP Assigned	No. of New works proposed for financial year 2012-13	Persondays to be generated	Total Cost (Rs.) in Lakhs
1	B. N. Patil	Section Engineer	PWD	9	DAPOLI	20	410	0.86
					DHANSAR	20	567	1.2
					KAMARE	20	5655	11.97
					MAHIM	20	515	1.09
					NANDORE - DEVKHOPE	0	2367	5
					PADGHE	20	3549	7.5
					SATPATI	20	1030	2.19
					SHIRGAON	20	2778	5.89
					UMROLI	0	0	0
2	D. Borde	Section Engineer	Water Supply	6	GANJE	20	2881	6.1
					HALOLI-BOT	20	5759	12.2
					KARAL GAON	20	1596	3.39
					KHADKOLI	20	4270	9.05
					KHAMLOLI	20	1030	2.19
					SATIVALI	20	1180	2.5
3	J. T. Mahajan	Section Engineer	Minor Irrigation	9	BAHADOLI	20	1030	2.19
					DANDI	0	0	0
					DHUKTAN	20	4525	9.58
					KOSBAD	20	3241	6.85
					MANOR	20	2008	4.25
					NAVI DAPACHRI	20	5810	12.3
					POLE	20	3600	7.61
					SHELAVALI	20	2055	4.35

					TEN	20	3705	7.84
4	R. S. Lahor	Section Engineer	PWD	6	AVDHANI	20	1905	4.03
					DURVES	20	3392	7.19
					MENDHVAN	20	1285	2.72
					NANDGAON TARPHE MANOR	20	1233	2.6
					SAVARE-ENBUR	20	4578	9.7
					WADA KHADKONA	20	4115	8.7
5	S. B. Shirsir	Section Engineer	Water Supply	16	BETEGAON	20	1081	2.3
					BIRWADI	20	4115	8.7
					HANUMAN NAGAR	20	1851	3.92
					KELVA ROAD	20	2367	5
					KHANIVADE	20	770	1.64
					KOLVADE	0	0	0
					KONDHAN	20	7251	15.35
					KURGAON	20	1390	2.95
					MOREKURAN	20	208	0.45
					NEWALE	20	1285	2.72
					PANCHALI	20	51	0.1
					POPHARAN	20	822	1.75
					SARAVALI	0	0	0
					SHIGAON	20	2106	4.45
TARAPUR	20	306	0.65					
UNBHAT	20	208	0.45					
6	S. M. Shinde	Section Engineer	PWD	14	DATIWARE	20	4525	9.58
					DONGRE	20	208	0.45
					EDVAN	0	0	0
					JALSAR	20	1851	3.92
					KARVALE	20	1030	2.19
					KHARDI	20	4370	9.25
					KHAREKURAN	20	2934	6.2
KHERE GROUP	20	1390	2.95					

					KORE	20	1441	3.05
					SHILTE	20	3549	7.5
					TEMBHIKHODAVE	20	260	0.55
					TIGHARE AMBODE	20	410	0.86
					USRANI	20	1030	2.19
					VEDHI MANJURLI	20	1130	2.4
7	S. R. Jadhav	Section Engineer	PWD	10	ALEWADI	20	2315	4.9
					GUNDALE	20	464	0.99
					KHERA PADA	20	8230	17.42
					KUMBHAVLI	0	0	0
					LALONDE	20	3241	6.85
					MAN	20	51	0.1
					MURBE	0	0	0
					NANDGAON TARPHE TARAPUR	0	0	0
					NAVAPUR	20	978	2.06
					TEMBHI	0	0	0
8	V. Sutar	Section Engineer	Minor Irrigation	12	DAHISAR TARPHE MANOR	20	1545	3.26
					DANDA KHATALI	20	155	0.33
					GIRALE	20	1030	2.19
					KATALE	20	2420	5.11
					KELVA	20	1030	2.19
					MAKNE	20	1596	3.39
					MATHANE	20	410	0.86
					PARGAON	20	567	1.2
					SALWAD	20	306	0.65
					SAPHALA	20	2778	5.89
					VIRATHAN BUDRUK	20	719	1.51
					VIRATHAN KHURD	20	770	1.64
9	C. Sau	Assistant Engineer	PWD	6	JAYSET	20	1130	2.4
					NAVGHAR - GHATIM	20	4370	9.25
					NAVJHE	20	2622	5.55

					POCHADE	20	4525	9.58
					SAKHARE	20	822	1.75
					SONAVE	20	1596	3.39
10	H. D. Bhoir	Assistant Engineer	PWD	11	BOISAR	20	359	0.75
					GOVADE	20	4990	10.55
					KIRAT	20	2675	5.66
					LOVARE	20	1081	2.3
					MAHAGAON	20	2980	6.3
					MASVAN	20	1955	4.15
					NAGJHARI	20	1851	3.92
					NIHE	20	2725	5.76
					PAM	20	208	0.45
					PASTHAL	20	51	0.1
					WARSOLI KHARSHET	20	8536	18.06
11	R. R. Padhye	Assistant Engineer	PWD	8	AAGARVADI	20	2725	5.76
					CHATALE	20	208	0.45
					KANDREBHURE	20	1030	2.19
					KAPASE	20	410	0.86
					MAIKHOP	20	3392	7.19
					MANDE	20	2106	4.45
					NAGAVE	20	719	1.51
WILANGI	20	410	0.86					
12	V. D. Birade	Assistant Engineer	PWD	9	AKKARPATTI	0	0	0
					DAHISAR TARPHE			
					TARAPUR	20	1494	3.16
					GHIVALI	20	306	0.65
					KUDAN	20	155	0.33
					NAVI DELWADI	0	0	0
					PARNALI	20	567	1.2
					PATHRALI	20	105	0.22
UCHHELI	20	359	0.75					
VENGANI	20	462	0.99					

13	G. S. Gaikwad	Junior Engineer	Water Supply	9	BARHANPUR	20	12085	25.58
					BORSHETI	20	515	1.09
					CHINCHARE	20	1695	3.59
					GIRNOLI	20	3136	6.65
					KOKNER	20	2830	6
					KOLGAON	20	670	1.42
					NANIVALI	20	5094	10.78
					RAVATE	20	515	1.09
					SAGAWA	20	2725	5.76
14	P. N. Sonusade	Junior Engineer	PWD	8	BHADWAY	20	208	0.45
					CHAHADE	20	4936	10.45
					DARSHET	20	4780	10.11
					KARDAL	20	978	2.06
					LALTHANE	20	2850	6
					MAKUNSAR	20	670	1.42
					TANDULWADI	20	4115	8.7
					WADHIV SARAVALI	20	670	1.42

Annexure 6: GRS from Mokhada – Telephonic Interview data dated 29-06-2012

S. No.	GP	Name	Age	Marital Status	Qualification	Working Since	Any other work	Training remarks	Other remarks
1	Khoch	Jairam Yeshu Ghangar	28	Y	S.Y. B.Com	2006	Nil	MKCL e-learning Training in Success computer institute(Mokhada) from 1st July 2012 for e-Governance	
2	Shivali	Ravindra Devram Thalekar	22	Y	MA (History)	2012	Nil	MKCL e-learning Training in Success computer institute(Mokhada) from 1st July 2012 for e-Governance	
3	Khodala	Sandip Thalekar	29	Y	M.Com (1st year)	2008	Self business	Training in Mokhada Panchayat Samiti in Aug 2008	Training on Vanrai Bhandhara, Mazgi, Seth Talav
4	Chas	Kashinath Dakhane	39	Y	11th Std.	2011	Social Work	Don't knw	
5	Dolhara	Suresh Laxman Jadhav	30	Y	S.Y. B.Com	2006	Agriculture	Don't knw	

6	Hirve	Sadashiv Yeshwant Ghum	38	Y	BA (History & Economics)	2006	Documentati on work in GP	Training in Mokhada Panchayat Samiti in Aug 2008	Training on procedures of filling forms and muster rolls
7	Morhanda	Ramesh Pandurang Warghade	40	Y	BA (History & Economics)	2012	Agriculture	MKCL e-learning Training in Success computer institute(Mokhada) from 1st July 2012 for e-Governance	
8	Vashala	Devidas Dagle	33	Y	11th Std.	2007	Mukadum in Krishi Karyalay	MKCL e-learning Training in Success computer institute(Mokhada) from 1st July 2012 for e-Governance	
9	Sakhari	Laxman Ganga Maali	36	Y	11th Std.	2007	Agriculture	MKCL e-learning Training in Success computer institute(Mokhada) from 1st July 2012 for e-Governance	
10	Aase	Raju Ram Vaje	25	N	MA (Political Science)	2011	Nil	MKCL e-learning Training in Success computer institute(Mokhada) from 1st July 2012 for e-Governance	

11	Mokhada	Bhaskar Prabhakar Pawar	23	N	12th Std.	2009	Nil	MKCL e-learning Training in Success computer institute(Mokhada) from 1st July 2012 for e-Governance	
12	Suryamaal	Bhagirath Sadu Hamare	28	Y	12th Std.	2011	Agriculture	MKCL e-learning Training in Success computer institute(Mokhada) from 1st July 2012 for e-Governance	Received Rs. 2500/- in March 2012 for Vanrai Bhandhara. No Payment for other works done till date. It takes around 6-7 months for payment sanction.
13	Dandhval	Vilas Devram Pahu	31	Y	S.Y. B.Com	2012	Works in Navodhya Gramin Sansthan	Training in Mokhada Panchayat Samiti in Aug 2008	Training on procedures of filling forms and muster rolls. Received Rs. 7308/- till date. It is takes 6-7 months for payment sanction.
14	Beriste	Devram Gangaram Bhamne	30	Y	9th Std.	2008	Agriculture	MKCL e-learning Training in Success computer institute(Mokhada) from 1st July 2012 for e-Governance	Received Rs. 5000/- till date. Pending amount of about Rs. 40000/- yet to be received. It takes very long time for payment sanction.

Annexure 7: GRS from Jawhar – Telephonic Interview data dated 29-06-2012

S. No.	GP	Name	Age	Marital Status	Qualification	Working Since	Any other work	Training remarks	Other remarks
1	Aapatale	Shivram Bhau Modak	31	Y	B.Com	2006	Agriculture	1 day training at Jawhar Shramik Janta Sahakar & MKCL e-learning Training in Siddhi computer institute(Jawhar) in April 2012 for e-Governance	Training on filling forms and muster rolls
2	Borale	Sandip Arjun Khutade	26	Y	12th Std.	2006	Agriculture labourer	MKCL e-learning Training in Siddhi computer institute(Jawhar) in April 2012 for e-Governance	
3	Chambhars het	Jayendra Anata Dole	26	Y	BA(Journalism)	2006	Agriculture	MKCL e-learning Training in Siddhi computer institute(Jawhar) in April 2012 for e-Governance	
4	Dhanoshi	Shantaram Ravji Pilana	35	Y	10th Std.	2007	Agriculture	MKCL e-learning Training in Siddhi computer institute(Jawhar) from 1st July 2012 for e-Governance	

5	Hiradpada	Atul Baban Damte	24	Y	BA(Marathi)	2007	Agriculture labourer	2 days training in BAIF & MKCL e-learning Training in Siddhi computer institute(Jawhar) from 1st July 2012 for e-Governance	Training on filling forms and muster rolls
6	Kogda	Jayram Doke	31	Y	12th Std.	2008	Agriculture	Don't Know	Resigned due to irregular & long payment delays
7	Kortad	Laxman Baban Bhusara	40	Y	11th Std.	2009	Agriculture	1 day training at Jawhar Shramik Janta Sahakar & MKCL e-learning Training in Siddhi computer institute(Jawhar) in April 2012 for e-Governance	
8	Khadkhad	Vijay Gunaji Ghatal	32	Y	12th Std.	2010	Agriculture	Don't Know	
9	Chouk	Chandrakant Tulshiram Pardhi	25	Y	B.Com	2011	Agriculture	MKCL e-learning Training in Siddhi computer institute(Jawhar) in April 2012 for e-Governance	

10	Shiroshi	Chandrak and Mahadu Madha	30	Y	BA(Rural Development)	2011	Agriculture	MKCL e-learning Training in Siddhi computer institute(Jawhar) from 1st July 2012 for e-Governance	Don't wish to work as no payment received till date. Also no adequate training is provided.
11	Degacni-met	Dilip Bacchu Malgavi	23	N	BA(Marathi)	2012	Nil	MKCL e-learning Training in Siddhi computer institute(Jawhar) in April 2012 for e-Governance	
12	Kogda	Mahesh Buthar	20	N	10th Std.	2012	Nil	Don't Know	Newly Appointed, Don't know procedures, need training

Annexure 8: GRSs data collected from telephonic interviews on 29-06-2012¹

Block	GRSs		Age group (years)	Qualification	Training status	Remarks
	Total	Interviewed				
Mokhada	29	14	22-40	9 th std. = 1 10 th std. = NIL 11 th std. = 3 12 th std. = 5 Graduates = 3 Postgraduates = 2 (Generally from Arts and Commerce background)	Training in Mokhada Panchayat Samiti in Aug 2008 MKCL e-learning ² Training in Success computer institute(Mokhada) from 1st July 2012 for e-Governance	Inadequate or no training provided. Delayed payment
Jawhar	39	12	20- 40	9 th std. = NIL 10 th std. = 2 11 th std. = 1 12 th std. = 3 Graduates = 6 Postgraduates = NIL (Generally from Arts and Commerce background)	1 day training at Jawhar Shramik Janta Sahakar & MKCL e-learning Training in Siddhi computer institute(Jawhar) in April 2012 for e-Governance	Inadequate or no training provided. Delayed payment

¹ Refer Annexure 6 and 7 for more details

² MKCL e-learning: Pragati Abhiyan is actively associated with YASHADA the State Training Institute for MGNREGS functionaries in designing training and also being Resource persons during the trainings. Maharashtra Knowledge Corporation Limited (MKCL) an autonomous Government Agency with expertise in e-Governance was awarded the task of creating an E-Learning training content for the Gram Rozgar Sevak.

Acknowledgements

When you attempt to endeavor your ambitions, the first people you expect to stand by your side in tough times are your parents and I can say I am blessed to have them standing firmly by my side all time. I owe sincere thanks to them and also to my younger brothers, Jayesh and Rajesh, who have morally supported me and, in my absence, taken care of our parents and other responsibilities at home without harboring any kind of discontent thoughts against me in their mind and heart. I express my sincere gratitude to my guide, Prof. N. C. Narayanan, who through all odds kept me motivated and walked with me till the end, until I finished my report. He took enough pains to read my report thoroughly, guiding and triggering me to dive to extreme depth of the subject matter of the study. I also owe sincere thanks to Prof. Subodh Wagle who dissected my report word by word, line by line and proved me, during my defense, how I was inadequate and poor in my analysis and report writing. It was then I realized my fault of delaying my research work during the peak days of the final semester and then hastily writing a report just few days before my defense. I am glad that my guide, though unhappy with my draft report, allowed me to defend my work. I took an official one month extension for writing my report in depth and it was during this period, my guide patiently worked with me and guided me minutely in my research. I thank all other faculty members of CTARA for their teachings and support and for always treating me with high esteem. I thank the CTARA office staff whose support was uncompromising all along through these two years. I am thankful to Ms. Shraddha Shringarpure, the project coordinator from Aroehan, and Aroehan support staff who helped me in all respect to conduct my research in Mokhada and Jawhar. I also thank Mrs. Seema Kakade of Prayas for providing me initial inputs to my research work. I thank all government officials including Sarpanch, Block Development Officer, Assistant Program Officers, Gram Sevaks and Gram Rozgar Sevaks and Line Department Engineers in Mokhada, Jawhar and Palghar blocks, who helped me through secondary data and interviews. Lastly, I owe thanks to all my batchmates who always showed concern in problem times and extended their support. I especially thank, Jayakrishnan and Sabu K. T., who accommodated me in their hostel room during last few days of my report completion and helped me with all the resources needed.