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MGNREGA

A review of decent work and green jobs in Kaimur District in Bihar



MGNREGA

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in Kaimur District in Bihar**

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MGNREGA - A review of decent work and green jobs in Kaimur District in Bihar

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Foreword

Within the framework of the achievement of decent work for all, the International Labour Organization (ILO) has been supporting member countries, including India, to pursue the goal of productive employment and decent work. With the launch of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) by the Government of India in February 2006 in 200 districts and its extension to all districts since April 2008, India is currently implementing an ambitious programme that covers a rights-based approach to development, income security to rural households through guaranteed wage employment, some check on distress migration from rural to urban areas and creation of durable assets.

The ILO looks at MGNREGA as an opportunity for value addition with the aim of promoting sustainable livelihoods and decent work and addressing some key elements like gender issues, skills development, social security, equity, and improved quality of life of workers and their children. Another key emerging area of concern is environmental issues. ILO has launched the green jobs initiative to mobilise governments, employers and workers to engage in a dialogue on coherent policies and effective programmes leading to a green economy with green jobs that contribute to environmental sustainability and decent work for all. Jobs created under programmes such as MGNREGA fit well into the green jobs concept since majority of the works under this programme relate to development/regeneration of water bodies, bio-mass, water conservation, plantation and afforestation, horticulture and land development, and rehabilitation/maintenance of rural infrastructure. The Government of India has a National Action Plan on Climate Change (NAPCC). The Ministry of Labour and Employment, Government of India has set up a multi-stakeholder task force to look into employment issues relating to climate change and green jobs. The sub-group of this task force, in its meeting held in August 2009, suggested a more detailed review of the type of works undertaken, in particular of the social and environmental dimensions, as well as development of a systematic approach to identifying the extent of 'green' and decent work under MGNREGA. The ILO, therefore, collaborated with Development Alternatives (DA) to undertake a research study in Kaimur district, Bihar.

This study is the first attempt at quantification of decent work elements and environment-related aspects in the execution of MGNREGA works. The study reveals that the works in Kaimur district should be considered green and decent, although there is scope for improvement in the areas of social protection and social dialogue. Regarding environmental aspects, the study suggests improvement in land management planning from the point view of the source from where soil is excavated.

It is hoped that suggestions resulting from this study will be incorporated during future implementation of MGNREGA so as to improve the carbon footprint of the economy in the execution of such works on the one hand and transform work site conditions to enhance social security, welfare and safety of workers on the other.

Director
SRO, ILO New Delhi



Acronyms

AE	Assistant Engineer
AIDS	Acquired Immune Deficiency Syndrome
APL	Above Poverty Line
BPL	Below Poverty Line
BRGF	Backward Region Grant Fund
CBO	Community Based Organisation
CD Block	Community Development Block (referred to as Block)
DA	Development Alternatives
DDC	District Development Commissioner
DM	District Magistrate
DRDA	District Rural Development Authority
DWCP	Decent Work Country Programmes
EE	Executive Engineer
EIA	Environmental Impact Assessment
FGD	Focused Group Discussion
FY	Financial Year
GHG	Green House Gases
GoB	Government of Bihar
GoI	Government of India
HIV	Human Immunodeficiency Virus
IAY	Indira Awaas Yojana
ICDS	Integrated Child Development Scheme
IFMC	Integrated Finance Management Cell
ILO	International Labour Organization
INR	Indian Rupees
IOE	International Organisation of Employers
ITUC	International Trade Union Confederation
JE	Junior Engineer
JFMC	Joint Forest Management Committee

M & E	Monitoring and Evaluation
MIS	Management Information Systems
NAPCC	National Action Plan on Climate Change
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
OHS	Occupational Health and Safety
PHC/CHC	Primary Health Centre/Community Health Centre
PPE	Personal Protection Equipment
PRI	Panchayati Raj Institutions
PRS	Panchayat Rozgar Sewak
PTA	Panchayat Technical Assistant
RDD	Rural Development Department
SC	Scheduled Caste
SEA	Strategic Environment Assessments
SHG	Self-help Group
ST	Scheduled Tribe
TSC	Total Sanitation Campaign
UNEP	United Nations Environment Programme
ZP	Zilla Parishad

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We are grateful to the communities of the study area for their participation in the study.

We welcome feedback on this report from anyone who reads it.

Kiran Sharma
Team Leader

Raghvesh Ranjan
Principal Investigator

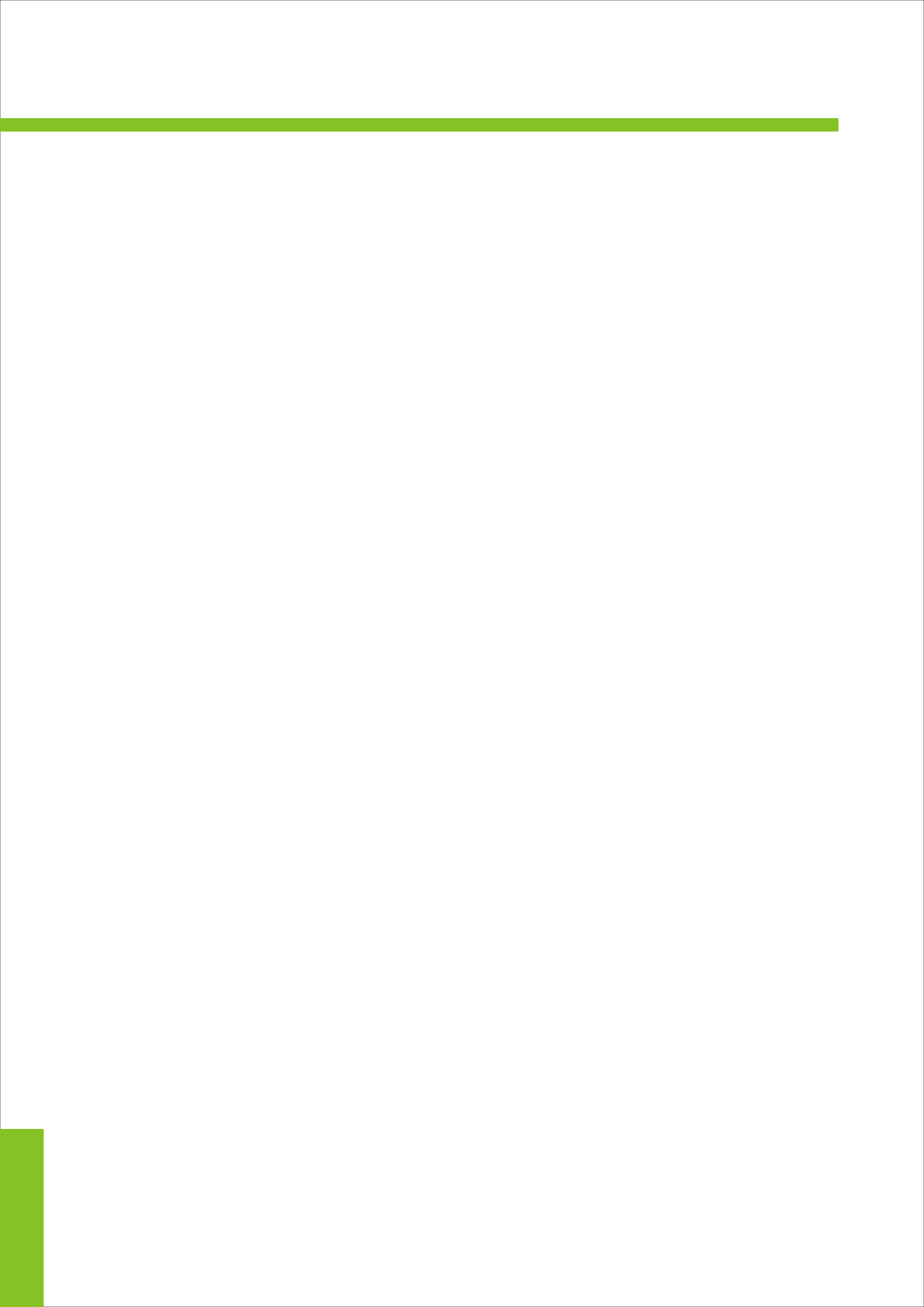


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BACKGROUND OF THE STUDY



Context

About MGNREGA

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) has been devised as a public works programme in India to address the issue of a rights-based approach to development; provide income security to rural households through guaranteed wage employment; reduce/check distress migration from rural to urban areas; and create durable community assets (in rural areas) to trigger the overall development of about 600,000 Indian villages.

- **Socio-economic context**

The jobless growth of the 1990s, stagnation or even decline in the growth of agricultural productivity, suicides by distressed farmers in various parts of the country and increased migration from rural to urban areas were the larger socio-economic context of the MGNREGA. Lack of mandate for the 'India Shining' slogan and some icons of economic reforms in the 2004 Parliamentary and Assembly elections formed the immediate political context of the Act¹. It was also an attempt to moderate the consequences of economic reforms, which have increased income and regional inequalities in the reform phase².

There is a constitutional context as well. Article 41 of the Indian constitution provides a non-justiciable right to work under the Directive Principles of State Policy and proclaims: 'The State shall, within the limits of its economic capacity and development, make effective provision for securing the right to work in case of unemployment³.' This Article remained dormant for fifty-five years until the MGNREGA in 2005. However, the MGNREGA is a partial fulfilment of the right to work, as it assures employment at the household and not at the individual level and guarantees a maximum of 100 days of wage employment. Nevertheless, it is a landmark development in the sense that it highlights the confidence of the state in its economic capacity to convert non-justiciable rights provided in Part IV of the Indian constitution into justiciable ones.

The MGNREGA was passed by the Parliament of India in its monsoon session of 2005. The Act received the assent of the President on 5 September 2005 and was notified in the Gazette of India on 7 September 2005. It came into force in 200 selected (backward) districts of the country on 2 February 2006 and was extended to 130 more districts from 1 April 2007 onwards. It has since been extended to all districts in the country from 1 April 2008, achieving universal coverage in three years, a bold step indeed.

- **Objectives of MGNREGA**

The main objective of the Act is: 'To provide for the enhancement of livelihood security of the households in rural areas by providing at least 100 days of guaranteed wage employment in every

1. See Ashok K. Pankaj: "NREGA: Guaranteeing the Right to Livelihood", in *India Social Development Report 2008* (Delhi, Oxford University Press, 2008), pp. 22123.
2. See M.S. Ahluwalia: "Economic performance of states in post-reforms period", in *Economic and Political Weekly*, Vol. XXXV, No. 19, pp. 163748; N.J. Kurian: "Widening regional disparities in India", *Economic and Political Weekly*, Vol. XXXV, No. 7, pp. 53850; Angus Deaton and Jean Dreze: "Poverty and inequality in India: A re-examination", *Economic and Political Weekly*, Vol. 37, No. 36, pp. 372948; Nirvikar Singhet al.: "Regional inequality in India: A fresh look", *Economic and Political Weekly*, Vol. 38, No. 1, pp. 106973; Sabyasachi Kar and S. Saktivel: "Reforms and regional inequality in India", *Economic and Political Weekly*, Vol. 42, No. 47, pp. 6977.
3. V.N. Shukla, *The Constitution of India* (Lucknow: Eastern Law Company, 2004), p. 305.

financial year to every household whose adult members volunteer to do unskilled manual work.⁴¹

Other objectives include:

- Reduction of distress migration from rural to urban and from one part of rural to another rural area;
- Creation of durable assets in villages;
- Invigoration of civic and community life and enlivening of Panchayati Raj Institutions (PRIs), as they have been entrusted to formulate, implement and monitor the scheme;
- Empowerment of rural women by providing them the opportunity to earn income independently and participate in social groups (workers);
- Overall development of the rural economy;
- Promotion of inclusive growth and development; and
- Facilitation of multiplier effects on the economy.

The categories of works permissible under MGNREGA are water conservation, drought proofing (including plantation and afforestation), flood protection, land development, minor irrigation, horticulture and land development on the land owned by scheduled caste (SC)/scheduled tribe (ST)/below poverty line (BPL)/Indira Awas Yojna (IAY) families and land reform beneficiaries, and rural connectivity.

The Green Jobs Initiative and MGNREGA

The Green Jobs Initiative formulated in 2007 is a joint initiative by the United Nations Environment Programme (UNEP), the International Labour Organization (ILO), the International Organisation of Employers (IOE) and the International Trade Union Confederation (ITUC). The initiative was launched to mobilise governments, employers and workers to engage in a dialogue on coherent policies and effective programmes, leading to a green economy with green jobs and decent work for all.

Green jobs can be generically defined as the direct employment created in economic sectors and activities which reduce their environmental impact and ultimately bring it down to levels that are sustainable. Green jobs are decent jobs that contribute to environmental sustainability. These jobs can be found in all economic sectors and help protect ecosystems and biodiversity; reduce the need for energy and natural resources, such as materials and water; de-carbonise the economy and minimise all forms of waste and pollution. Green jobs are therefore directly related to climate change mitigation and adaptation activities and also to other environmental issues, such as natural risk management, biodiversity conservation, prevention of desertification, pollution control and prevention, etc. Climate change and climate variability have a major socio-economic impact, in particular in countries which rely largely on environment-based incomes and livelihoods. For these reasons, responses to climate change need to be mainstreamed into national, sectoral and local development strategies. The ILO constituents and the ILO (as an office) play an important role at the international and national levels in a system-wide approach, including through the development of the Decent Work Country Programmes (DWCP).

Jobs created under employment intensive, environmentally sustainable public programmes such as the MGNREGA would in principle fall under the definition of green jobs, should these jobs be considered decent and the contribution of these programmes to reducing environmental impact or maintaining

4. *Gazette of India*, Extraordinary, Part II, No. 48, Delhi, 7 September 2006, p. 1.

environmental capital be demonstrated. By definition, such programmes have an economic and social function, which are linked to the broader sustainable development agenda. The Government of India (GoI) has an active policy in support of sustainable development, which includes the adopted National Action Plan on Climate Change (NAPCC). The GoI has also constituted a task force to deal with employment issues relating to climate change and green jobs. The choice of works executed under MGNREGA fits well into the green jobs initiative as majority of them contribute to development/regeneration of water bodies and biomass. The focus on natural resource management is already built into MGNREGA through its high priority to work related to land development, water conservation and micro irrigation. The new ILO initiative on green jobs would further support the national effort towards promoting sustainable cultivation practices and livelihood opportunities in natural resource management while leading to a more sustainable environment at the local level through MGNREGA.

The sub-group constituted by the GoI's Task Force on Climate Change and Green Jobs in its meeting held on 31 August 2009 suggested a more detailed review of the type of jobs created under MGNREGA, in particular their social and environmental dimensions, as well as development of a systematic approach to identifying those green jobs under MGNREGA in different sectors such as:

- Food production and agriculture
- Rehabilitation and maintenance of rural infrastructure
- Natural resource management (forests and fisheries)
- Alternative energy and energy efficiency
- Construction and irrigation, watershed development and rural access.

By using the same methodology, the study should also assist in identifying those jobs (and actions) which are seen as contributing to environmental degradation. By furthering this analytical work, one could aim at the development of a model for assessing the employment profile of those green sectors contributing to environmental outcomes and potential for job creation.

This is the context in which ILO commissioned Development Alternatives (DA) to undertake this study. ILO has been working with DA on several assessment projects pertaining to green jobs, decent work and skill mapping in prominent sectors in India. DA's previous experience in diverse facets of MGNREGA in Bihar, Uttar Pradesh and Madhya Pradesh was considered an asset for the undertaking of this study, which required a fairly thorough understanding, both of the operational modalities of the Act as well as the green jobs concept. The study, it was agreed, would be undertaken only in the state of Bihar.

Objectives of the Study

The main objective of the study was to assess the decent work and environmental dimensions of the existing jobs created under MGNREGA in one particular district, with a view to promoting green jobs through the creation of new jobs and the enhancement of existing jobs. In this context, the specific objectives of the study were:

- To develop a systematic approach for identifying and reviewing the decent work and environmental dimensions of existing jobs under MGNREGA;
- To apply this methodology to existing jobs under MGNREGA in several areas in Bihar through field research and analysis;
- To make recommendations for the further enhancement of the decent work and environmental dimensions of existing and future jobs under MGNREGA, including skills development; and

Scope of the Study

By using the criteria of soil characterisation, rainfall, temperature and terrain, three main agro-climatic zones have been identified in the state of Bihar: Zone I (North-west Alluvial Plains), Zone II (North-east Alluvial Plains), Zone III (South Bihar Plains) each with its own unique prospects (Table 1).

Table 1. Agro-climatic zones of Bihar

Agro-climatic zone	Districts	Area ('000 ha)	Average rainfall (mm)	Soil and topography	Main crops
Zone I: North-west Alluvial Plains	Bettiah, Motihari, Gopalganj, Siwan, Vaishali, Seohar, Muzaffarpur, Samastipur, Sitamarhi, Madhubani, Darbhanga, West & East Champaran	Net cultivated: 2281 Gross cultivated: 3260	1234.7	Medium acidic, heavy textured, sandy loam to clayey, flood prone. (Large area remains under water called Chaur, Maun and Tal lands.)	Rice; wheat; maize; arhar; horticultural crops like litchi, mango, makhana, water chestnut.
Zone II: North-east Alluvial Plains	Purnea, Katihar, Saharsa, Madhepura, Araria, Kishanganj, Supaul, Khagaria, Begusarai	Net cultivated: 1147 Gross cultivated: 1677	1382.2	Light to medium textured, slightly acidic, sandy to silty loam. (Large area comprises Tal and Diara lands.)	Maize; mustard; jute; sugarcane; horticultural crops like mango, bael, banana, papaya, cucurbit, chillies, turmeric, potato.
Zone III : South Bihar Plains	Patna, Gaya, Buxar, Jehanabad, Nawada, Nalanda, Rohtas, Bhojpur, Aurangabad, Kaimur , Banka, Munger, Jamui, Lakhisarai, Shekhpura, Bhagalpur	Net cultivated: 241 Gross cultivated: 3408	1102.1	Old alluvial to sandy loam.	Rice; gram; wheat; horticultural crops like mango, guava, banana, bael, jackfruit, onion, potato, chillies, marigold.

Source: <http://krishi.bih.nic.in/pdf/zones.pdf>

The study was conducted between October and December 2009 in the district of Kaimur with facilitation from ILO and the Government of Bihar (GoB).



MATERIAL AND METHOD



Rationale for Selection of the Study Area

Bihar, a predominantly agricultural state situated in eastern India, has plenty of plain and fertile land with alluvial soil and abundance of water courses and groundwater, but continues to remain economically backward. Floods and droughts are regular features of the state, notwithstanding significant developments in water resource management including measures for flood prevention and control and the development of irrigation systems.

Bihar accounts for 16.5 per cent of the flood-prone area and 22.1 per cent of the flood-affected population of India. The rivers that regularly inundate the state are the Ganga, Kosi, Gandak and Son.

In south and central Bihar, drought situations are well documented. In September 1988, when the whole of north Bihar was flooded, south and central Bihar suffered from severe drought. The great famine of Bihar is still well within memory. During that year, Purnia was the only district (out of the 38 districts in Bihar) that received nearly normal rainfall. Districts like Buxar, Bhojpur, Kaimur, Aurangabad, Samastipur, Khagaria and Begusarai received almost negligible rains.

In this backdrop, it should have been logical to undertake the study in two districts, representing the diverse contexts of Bihar, i.e., flood and drought. However, from a green jobs perspective, it was important to be able to identify a district which could offer the widest range of possible types of work and activities under MGNREGA. Considering the experience and information obtained on droughts and floods in Kaimur and Kishanganj districts as a part of a recently concluded scoping study on MGNREGA, the district of Kaimur was selected for the purposes of this particular study.

Profile of Kaimur District

History: The present district of Kaimur was a part of Shahabad district till 1972, after which it became part of Rohtas district. It was in 1992 that Kaimur emerged as an independent district in the state of Bihar.

Area: Kaimur district encompasses an area of 335,501 hectares of which 54 per cent is used for agriculture and 31 per cent is under forest. Area not fit for cultivation is 11 per cent of the total area of the district, whereas the remaining 4 per cent of the area is designated as culturable waste land. Seventy three per cent of the land under cultivation is irrigated. The main source of irrigation is canal irrigation that accounts for 50 per cent of the irrigated area in the district. The other sources of irrigation include wells and tube wells (31 per cent), tanks and lakes (5 per cent), rivers and water falls (1 per cent) and other sources (13 per cent).

Geography: Geographically, Kaimur can be divided into two parts: (i) hilly area and (ii) plain area. The hilly area comprises the Kaimur plateau. The plain area on the western side is flanked by the rivers Karmanasha and Durgawati. The Kudra river lies on its eastern side. The districts of Buxar (Bihar) and Ghazipur (Uttar



Pradesh) bound it to the north. To the south is the district of Garhwa (Jharkhand) and to the west are the districts of Chandauli and Mirzapur (Uttar Pradesh). To the east is the district of Rohtas (Bihar).

Climate: The climate of the district is somewhat extreme, i.e., quite hot during the summer and fairly cold during the winter. January is the coldest month when the mean minimum temperature comes down to approximately 4°C. The temperature starts rising from March and reaches its peak in May, when the mercury touches about 45°C. Rains start sometime in mid-June and last till mid-September. The district gets easterly winds from June to September and from October to May, the wind direction reverses. Maximum rains occur during the months of July and August (289 mm). Sometimes, winter rains occur in January and February.

River system: Originating from the Kaimur plateau the Karmanasha river passes through Mirzapur district of Uttar Pradesh and forms the western boundary of the district for about 170 km. The River Kudra, which forms the eastern boundary, separating Rohtas district, is a branch of the River Dhoba rising in the Kaimur plateau, south-west of Tilauthu, and ultimately joins the Karmanasha. River Durgawati also originates in the Kaimur plateau and flows in a northern direction. It is joined by the Kudra river before it merges with the Karmanasha. Durgawati is perennial in nature and inundates a large area of land during the season of heavy rains.

Table 2. Demography and other important social indicators of Kaimur district

Parameters	
Population (lakh)	12.47
Population density (per sq. km)	382
Population growth rate (1991-2001)	30.64%
Sex ratio	940
% of SC population to total population	22.21
% of ST population to total population	2.77
Literacy (male)	70.57%
Literacy (female)	39.90%

Population: Kaimur has a population of 12.47 lakh persons of which 97 per cent reside in rural areas. The only urban area of the district is the district headquarters, Bhabua, which accounts for 3 per cent of the urban population of the district. SCs comprise 22 per cent of the district's population and STs 3 per cent. The average household size in Kaimur is seven.

Working population: Kaimur has a rural working population of 66 per cent, of which 70 per cent are main workers. Among the main workers, 39 per cent are cultivators and 44 per cent are agricultural labourers. A small proportion (3 per cent) is engaged in household industry and 11 per cent are engaged in other activities. Among the marginal workers in rural areas, 62 per cent are engaged as agricultural labourers and 25 per cent as cultivators.

Literacy: Kaimur has a literacy rate of 44 per cent with a gender literacy gap of 31 per cent. Male literacy rate is 70 per cent and female literacy rate is 39 per cent. One of the major reasons for the low level of literacy is the lack of educational infrastructure in the district. According to the 2001 Census, one primary school caters to 321 children (below the age of six years). In 2001, 21 per cent of the villages in the district had no education facility.

Infrastructure: There is one hospital for every 5,955 persons in the district. There is one post office for 1,440

households and one bank for every 2,881 rural households in the district.

Status of MGNREGA in Kaimur District

The total number of rural households in Kaimur district, as per the 2001 Census, was 178,669 and average household size was seven. There were 203,280 job card holders in Kaimur district as on October 2009. Till the end of October 2009, only 26,507 households had been provided jobs and 562,000 person-days were generated in the district in which the share of women was 29.88 per cent. Cumulative number of households that completed 100 days of employment till March 2010 was two. Therefore, it can be inferred that Kaimur is yet to achieve significant milestones as far as MGNREGA is concerned. The outreach of MGNREGA is limited to only 14 per cent of the total rural households in the district and the resource projections are underestimated.

The current scenario (as on 16 December 2009) of MGNREGA in Kaimur district against the state of Bihar has been summarised in Table 3.

Table 3. Status of MGNREGA: Bihar and Kaimur

	Kaimur (0.26507 lakh households)	Bihar (27.11177 lakh households)
<i>Person-days (in lakhs)</i>		
Total	5.62	684.96
SCs	3 [53.4%]	331.49 [48.4%]
STs	0.39 [6.99%]	14.9 [2.18%]
Women	1.68 [29.88%]	192.01 [28.03%]
Others	2.23 [39.61%]	338.57 [49.43%]
Total fund (INR)	7.34 crore	1598.7 crore
Expenditure	3.57 crore	1025.24 crore
Total works	1,371	126,542
Works completed	409	43,198
Works in progress	962	83,344

Note: Figures in brackets indicate percentage to the total.

Dimensions of the Study: Material and Method

Setting Indicators for Decent Work and Environmental Sustainability

MGNREGA created jobs, worksite conditions and social security provisions were important parameters used to review the four pillars of decent work (productive and secure employment, social protection, rights and social dialogue). On the other hand, the main parameters to review the environmental sustainability of the jobs were:

- Contribution to GHG emissions reduction or increase of capture capacity: Jobs that contributed to reducing the emission of GHG or to increasing GHG capture capacity, e.g., afforestation works.
- Protection of ecosystems and development of the capacity for ecosystem services: Jobs that contributed to preserving or restoring ecosystems and improving services such as water management and conservation, land use planning and management, etc.

- c. Energy efficiency and alternative sources of energy: Jobs that promoted efficient use of energy and low dependence on fossil fuel.
- d. Resource efficiency: Jobs that required limited use of natural resources and materials, such as water, wood, construction material, etc.
- e. Environmentally sound management of waste, including minimisation and recycling: Jobs that helped minimise generation of waste and manage them in an environmentally sound manner.

The decent work concept, as defined by ILO, is based on a set of indicators that can be categorised under the fields of employment, social protection, rights at work and social dialogue respectively. Environmental sustainability is measured against performance in various environmental fields. Advance methodologies to measure the environmental impacts of sectors, activities and jobs rely on the concomitant use of tools such as comprehensive Environmental Impact Assessments (EIA) for processes and products and Strategic Environment Assessments (SEA) for sectors and activities. For the sake of being able to apply a user-friendly and quick methodology, a limited number of environmental indicators were prioritised in the context of the present study (Table 4). Taking into account the fact that the concept of green jobs is inclusive of both its social/labour dimension as well as its environmental dimension, it was well understood that not all environmentally sustainable jobs would be decent and not all decent jobs would be environmentally sustainable. The review of the social and environmental indicators that would help review existing jobs and activities and identify green jobs therefore required a combined approach.

Table 4. Decent work and environmental sustainability indicators

Decent work indicators	Environment sustainability indicators
<p><i>Employment related</i></p> <ul style="list-style-type: none"> • Total employment generated • Women's participation rate • Category of labour (socio-economic, gender disaggregated) • Minimum wage realisation and timely payments • Days of employment available <p><i>Social protection related</i></p> <ul style="list-style-type: none"> • Insurance coverage ratio (insured against uninsured among job card holders) • Reported occupational injuries • Provisions for rest and related worksite facilities • Use of Personal Protection Equipment (PPE) at workplace and other occupational health and safety practices <p><i>Social dialogue related</i></p> <ul style="list-style-type: none"> • Presence of labour groups • Participation in planning • Availability and awareness on grievance redressal system • Number of grievances lodged (with their nature) • Awareness programmes on HIV/AIDS for workers (numbers) • Awareness programmes on OHS for workers (numbers) 	<p><i>Works that support</i></p> <ul style="list-style-type: none"> • Protection of ecosystems and development of the capacity for ecosystem services • Energy efficiency or reliance on renewable sources of energy • Resource efficiency • Reduction in GHG emission or increase of GHG capture capacity • Environmentally sound management of waste

Decent work indicators	Environment sustainability indicators
<i>Rights related</i> <ul style="list-style-type: none"> • Incidence of child labour • Hours of work and its distribution considering seasonal conditions • Discriminatory engagement incidences against total works being undertaken (with nature of discrimination and reasons thereof) • Proportion of women workers to total workers 	

Consultation and Consensus Seeking with Stakeholder Groups

The developed indicator list was shared with diverse stakeholder groups and consensus sought through interface with the Principal Secretary, Rural Development Department (RDD), GoB and then through consultation workshops at Kaimur with MGNREGA functionaries and relevant line department representatives. The inputs received were incorporated to revise the indicator list.

Secondary Data Collection

Secondary data (Table 5) was collected from various sources at different levels.

Table 5. Sources of secondary information

Level	Source
State level	<ol style="list-style-type: none"> 1. MGNREGA cell in RDD, GoB 2. Web portal (www.nrega.nic.in) 3. Census of India, 2001 (Village Directory of Kaimur District, Part A and B)
District level	<ol style="list-style-type: none"> 1. District MGNREGA cell 2. Vanvasi Krishi Vigyan Kendra, Adhoura, Kaimur
Block level	<ol style="list-style-type: none"> 1. MIS wing

Primary Information Collection

For the purpose of collection of primary data, two (against the proposed one) Community Development (CD) Blocks of Adhoura and Durgawati were selected. The selection of blocks was done with the consensus of state and district level officials. The two CD blocks were representative of different contexts within the district. Adhoura was representative of the hilly terrain with forests, inhabited predominantly by tribes and known for Naxal infestation, while Durgawati was representative of the alluvial plains and has a multi-ethnic composition.

• Worksite observation

Worksite observation was carried out at six locations. Due to the agricultural season resulting in low availability of labour, coupled with non-realisation of funds at the district level, very few worksites were operational. Therefore, the six worksites selected were either because they were open or had recently been concluded, irrespective of their location within the district. The worksite observation was carried out using the Worksite Observation Checklist (Annexure 1).

• Focused Group Discussions (FGDs) with workers

Six semi-structured FGDs were carried out during the course of the study (Annexure 2).

- **Interface with CD block⁵ level officials**

Interface was held with the Programme Officer (PO) of MGNREGA, Junior Engineer (JE), Computer Operator, Accountant and Panchayat Rozgar Sewak (PRS) at Adhoura and Durgawati, using a semi-structured checklist (Annexure 3).

- **Interface with district level officials**

Interface was held with the Deputy District Programme Coordinator cum Deputy Development Commissioner and officials in the MGNREGA cell using a semi-structured checklist (Annexure 4). Apart from this, relevant line department officials (Agriculture Development Officer, Divisional Forest Officer and Ranger, District Horticulture Officer, Project Director DRDA) were also consulted.

Processes Adopted

The processes adopted for undertaking various activities have been summarised in Table 6.

Table 6. Process matrix

Major areas of work	Process details	Levels of community participation	Facilitating and constraining factors and time	Human resource deployment
Development of protocols and sharing with ILO	<ol style="list-style-type: none"> 1. The protocols were developed in tandem with the proposed methodology in the proposal. 2. They were developed to collect information perspective based from supply and demand side representatives; and observations based by the investigators. 3. The draft protocols were shared with ILO and the inputs were integrated. 	N. A.	<ol style="list-style-type: none"> 1. Strong team composition: trans-disciplinary team comprising of social scientist, statistician, agriculturist, civil engineer and monitoring and evaluation expert. 2. Flexibility and quick feedback from ILO. 3. Thorough and comprehensive proposal, which was a result of intensive interaction between DA and ILO. 	A team of five researchers for seven days.
Creating ownership of state government	<ol style="list-style-type: none"> 1. Individual interaction with Principal Secretary, RDD, GoB to share a copy of the proposal. 2. The RDD issued formal directives to the district administration of Kaimur to lend support and facilitation to the study team. 3. The recommendation of the Principal Secretary, RDD regarding selection of 	N.A.	<ol style="list-style-type: none"> 1. Strong past rapport of DA with the state level machinery and working with RDD, GoB on MGNREGA-related researches. 2. Genuine interest of the state government on innovative researches in flagship programmes, including MGNREGA. 	Two team members for seven days meeting with Principal Secretary, RDD, GoB and follow up on issuance of directives to the district administration.

5. Community Development Block is a district sub-division.

Major areas of work	Process details	Levels of community participation	Facilitating and constraining factors and time	Human resource deployment
	blocks in Kaimur for field work incorporated in the work plan.			
Creating strong buy-in at district level	<ol style="list-style-type: none"> 1. Meeting with the District Project Coordinator of MGNREGA, District Magistrate (DM) and the Deputy District Coordinator (DDC) of MGNREGA and sharing a copy of the proposal. 2. Intensive meeting and tele-conversations with DM and DDC for finalisation of dates for stakeholder consultation workshop and ensuring participation of all concerned stakeholders. 	N.A.	<ol style="list-style-type: none"> 1. The facilitating factor was the earlier work on MGNREGA done by DA in Kaimur and strong rapport with the DM. 2. The constraining factor was change of DDC and building rapport with him. 	One team member for five days.
Stakeholder consultation workshop	<ol style="list-style-type: none"> 1. Mutual decision on date and venue of the workshop between DA and district administration. 2. Creation of project memory at the district level a file in the name of Green Jobs Initiative under MGNREGA by DA. 3. The workshop was co-hosted by the district administration and DA and prior invites to all the concerned stakeholders were issued by the DM. 4. Sharing the purpose, intent, outputs and advantages to the district to all stakeholders, maintaining utmost transparency and mutual respect. 5. Selection of two blocks for field work (against one proposed in the proposal) viz. Adhoura and Durgawati. 6. Inputs to the indicators and thereby its finalisation vetted by 	N.A.	<ol style="list-style-type: none"> 1. Facilitating factors were support extended by the district administration, and the seriousness shown by the state government. 2. Constraining factors were time constraints and diversity in portfolio of participants. 	Five team members for two days

Major areas of work	Process details	Levels of community participation	Facilitating and constraining factors and time	Human resource deployment
	<p>local stakeholders.</p> <p>7. Proceedings of the workshop shared with ILO.</p>			
Internal review and finalisation of indicators	<ol style="list-style-type: none"> 1. Based on inputs received at the stakeholder consultation workshop the indicator set was revised and finalised. 2. Each indicator was then split into one or two questions that would yield information and provide clues for data requirements. 3. Each question was then split into a scale of three possible options and was ranked (1 to 3). 4. Weightage was assigned to different options as answers to the questions pertaining to each indicator. 	N.A.	<ol style="list-style-type: none"> 1. Facilitating factors were strong team composition with an understanding of MGNREGA, environment, decent work and research methodology. 	Five team members for three days.
Collection of secondary information at state level	<ol style="list-style-type: none"> 1. With thorough understanding of data requirements, a checklist of secondary information was developed. 2. All the works carried out in the district of Kaimur for FY 200910, 200809 and 200708 were collected. 3. However, the data sets for FY 2008-09 and 200910 were found to be more comprehensive and updated and thus are major parts for further interpretation and analysis. 	N.A.	<ol style="list-style-type: none"> 1. Facilitating factors include working relationship with Sunai Consultancy, Patna as part of previous studies on MGNREGA by DA. Thus, one team member from Sunai was engaged for the purpose of procuring secondary data from the state government in Patna. 2. Strong rapport at state level resulted in access to all secondary information available with the state MGNREGA cell. 3. Constraining factors include Bihar undergoing significant changes in administrative set up for management and operation of MGNREGA. Since 2008 new contractual staff was engaged for management and operation of 	Two team members for ten days.

Major areas of work	Process details	Levels of community participation	Facilitating and constraining factors and time	Human resource deployment
			MGNREGA works in the state and at district level. Before that it was implemented through formal government machinery and the information was not updated. This was a hindrance in accessing information within the allocated time for the project.	
<p>Field work: Secondary and primary data collection</p> <p>Two CD Blocks of Adhaura and Durgawati selected through consultative process. The two blocks under reference are representative of distinct contexts within the district of Kaimur. Adhaura represents hilly terrain, is forested, has poor irrigation network with large tribal population and is prone to Naxalism while Durgawati largely represents the plains, has high irrigation intensity and a multi-ethnic composition.</p>				
Major areas of work	Process details	Levels of community participation	Facilitating and constraining factors and time	Human resource deployment
Worksite observations	<ol style="list-style-type: none"> Six worksites covered (two on rural connectivity, two on micro irrigation and one on water harvesting and conservation) and information collected on the basis of developed and endorsed research instrument. All aspects of worksite observation physical, technical and environmental aspects covered. 	The Gram Panchayat level functionaries, PRS and local community members facilitated the worksite visit.	<ol style="list-style-type: none"> Facilitating factors were the team's ability to converse in the local dialect, and strong understanding of MGNREGA spirit and provisions. Constraining factors were that very few worksites were open at the time of field visit, requiring teams to travel long distances and to remote locations for conducting worksite observations. The sanctity of block boundaries could thus not be respected. 	Five team members for three days
FGD with workers	<ol style="list-style-type: none"> Six FGDs conducted using the designed research tool. All aspects of availability of stipulated provisions at worksite, discrimination, labour group, participation, etc, were assessed. 	The communities enthusiastically participated in the FGDs as they found this a unique platform for voicing their opinions freely.	Facilitating factors were the team's ability to converse in the local dialect, strong understanding of MGNREGA spirit and provisions, and team understanding of participatory approaches.	Five team members for two days
Semi-structured interviews at	One-to-one interactions with mukhiyas, mates, PRS, PO, JE, and	N.A.	Facilitating Factors: Facilitating factors were directives to the block from	Two team members for two days

Major areas of work	Process details	Levels of community participation	Facilitating and constraining factors and time	Human resource deployment
Gram Panchayat/ Block level	computer operators.		the district to lend all support and facilitation to the team, and strong understanding of MGNREGA spirit and provisions.	
Semi-structured interviews at district level	<ol style="list-style-type: none"> 1. One-to-one interactions for seeking secondary information and perspectives with DDC and officials at MGNREGA cell. 2. Line departments Krishi Vigyan Kendra, Agriculture Department, Horticulture Department, Forest Department, Minor Irrigation Department. 	N.A.	Facilitating factors were strong understanding of MGNREGA spirit and provisions, and team understanding of green jobs initiative, environmental issues and decent work.	Two team members for two days

Analytical Framework

For Establishing Correlation between Decent Work and Environmental Sustainability

The indicators were unpacked in the context of MGNREGA into possible queries and data requirements and close-ended options on a scale of 1 to 3 were developed. This was peer reviewed by members of the research team and then finalised. Appropriate options were ascertained using observational (worksite observation), perceptual (FGDs, interface) and secondary data-based inferences (Table 7).

Table 7. Indicators for assessment with level and tools used

Indicators related to decent work		Level of assessment			Tool for assessment		
		District	Block	Worksite	Observation	FGDs and interface	Secondary data
1	<i>Employment related indicators</i>						
1.1	Total employment generated <ol style="list-style-type: none"> 1 Less than the state average 2 Equal to state average 3 Greater than state average 	□					□
1.2	Women's participation rate <ol style="list-style-type: none"> 1 % women getting engaged in MGNREGA works is < 20% of the total women issued job cards 2 % women getting engaged in MGNREGA works is 21% to 33% of the total women issued job cards 3 % women getting engaged in 	□	□				□

Indicators related to decent work		Level of assessment			Tool for assessment		
		District	Block	Worksite	Observation	FGDs and interface	Secondary data
	MGNREGA works is > 33% of the total women issued job cards						
1.3	Minimum wage realisation and timely payments			<input type="checkbox"/>		<input type="checkbox"/>	
1.3.1	Wage realisation 1 Up to 50% of the declared daily wage rate/commensurate to the measurement of work done 2 51% to 99% of the declared daily wage rate/commensurate to the measurement of work done 3 100% of the declared daily wage rate/commensurate to the measurement of work done						
1.3.2	Timely payments 1 More than 15 days 2 Between 7 and 15 days 3 On weekly basis			<input type="checkbox"/>		<input type="checkbox"/>	
1.3.3	Days of employment realised against demand 1 Up to 50% days of the employment demanded 2 51% to 90% of the days of employment demanded 3 91% to 100% of the days of employment demanded			<input type="checkbox"/>		<input type="checkbox"/>	
1.4	Place of work and nature of work			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.4.1	Place of work 1 More than 5 km with no payment of additional 10% of wages as transportation cost 2 More than 5 km with payment of additional 10% of wages as transportation cost 3 Within 5 km from the place of residence						
1.4.2	Nature of work 1 Work allocated on the basis of neither physical condition (age/skill) nor special condition (pregnancy/disability) 2 Work allocated on the basis of physical condition (age/skill) but not on special condition (pregnancy/disability)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Indicators related to decent work		Level of assessment			Tool for assessment		
		District	Block	Worksite	Observation	FGDs and interface	Secondary data
3	Work allocated on the basis of physical condition (age/skill) and special condition (pregnancy/disability)						
2	<i>Social protection related</i>			<input type="checkbox"/>		<input type="checkbox"/>	
2.1	Insurance coverage ratio (insured against uninsured among job card holders)						
	1 50% of job card holders covered for accident and life insurance						
	2 51% to 75% of job card holders covered for accident and life insurance						
	3 76% to 100% of job card holders covered for accident and life insurance						
2.2	Provisions for rest and related worksite facilities			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.2.1	Resting space, water and first aid kit						
	1 None of the facilities for resting space, drinking water and first aid kit are available						
	2 Either one or two of the facilities for resting space, drinking water and first aid kit are available						
	3 All the facilities for resting space, drinking water and first aid kit are available						
2.2.2	Child care facility			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	1 No crèche facility at worksite						
	2 Insecure and uncomfortable crèche facility and a person as caretaker employed at worksite						
	3 Safe and comfortable crèche facility and a person as caretaker employed at worksite						
3	<i>Social dialogue related</i>			<input type="checkbox"/>		<input type="checkbox"/>	
3.1	Presence of labour groups						
	1 No labour groups exist						
	2 Informal labour groups exist						
	3 Formal labour groups exist						
3.2	Participation of community institutions in work			<input type="checkbox"/>		<input type="checkbox"/>	
	1 SHG/CBOs/JFMCs, etc, engaged are not involved						

Indicators related to decent work		Level of assessment			Tool for assessment		
		District	Block	Worksite	Observation	FGDs and interface	Secondary data
	<p>either in planning or implementation (as implementing agencies or as workers)</p> <p>2 SHG/CBOs/JFMCs, etc, are engaged either in planning or implementation (as implementing agencies or as workers)</p> <p>3 SHG/CBOs/JFMCs, etc, are engaged in planning and implementation (both as implementing agencies or as workers)</p>						
3.3	<p>Participation in planning</p> <p>1 Inappropriate approval of plans of MGNREGA</p> <p>2 Plans for MGNREGA approved in the second meeting of the Gram Sabha as per the condition of Panchayati Raj Act, Bihar</p> <p>3 Plans for MGNREGA approved in Gram Sabha meeting with 1/20th representation (first quorum condition of Panchayati Raj Act, Bihar)</p>			<input type="checkbox"/>		<input type="checkbox"/>	
3.4	<p>Awareness programme on HIV/AIDS for workers (numbers)</p> <p>1 Awareness programme on HIV/AIDS not conducted</p> <p>2 Awareness programme on HIV/AIDS conducted non-formally</p> <p>3 Awareness programme on HIV/AIDS conducted formally</p>		<input type="checkbox"/>		<input type="checkbox"/>		
4	<i>Rights related</i>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.1	<p>Incidence of child labour</p> <p>1 Child labour observed and is rampant</p> <p>2 Child labour observed but nor rampant</p> <p>3 Not observed and not reported</p>						
4.2	Hours of work and its distribution considering seasonal conditions		<input type="checkbox"/>		<input type="checkbox"/>		

Indicators related to decent work		Level of assessment			Tool for assessment		
		District	Block	Worksite	Observation	FGDs and interface	Secondary data
	1 Timing and hours of work are not at all decided by the participants 2 Decision on timing of work and hours of work is non-unanimous 3 Timing of work and hours of work unanimously decided by the participants						
4.3	Incidence of discrimination 1 Discrimination is observed but not recalled nor reported by the participants 2 Incidence of discrimination recalled but not observed 3 No incidence of discrimination recalled or observed			<input type="checkbox"/>		<input type="checkbox"/>	
4.4	Socio-economic category: SC 1 % MGNREGA person-days generated for SC is less than the proportion of SC households in the block 2 % MGNREGA person-days generated for SC is equal to the proportion of SC households in the block 3 % MGNREGA person-days generated for SC is more than the proportion of SC households in the block	<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>
4.5	Socio-economic category: ST 1 % MGNREGA person-days generated for ST is less than the proportion of ST households in the block 2 % MGNREGA person-days generated for ST is equal to the proportion of ST households in the block 3 % MGNREGA person-days generated for ST is more than the proportion of ST households in the block	<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>
4.6	Gender 1 % MGNREGA person-days generated for women is less than 17% in the block 2 % MGNREGA person-days	<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>

Indicators related to decent work		Level of assessment			Tool for assessment		
		District	Block	Worksite	Observation	FGDs and interface	Secondary data
	<p>generated for women is between 18% and 32% in the block</p> <p>3 % MGNREGA person-days generated for women is equal to or more than 33% in the block</p>						
<i>Indicators related to environmental sustainability (sample for road connectivity only)</i>							
5	<p><i>Strengthening of natural resources</i></p> <p>1 Soil coming from agriculture/ forest land</p> <p>2 Soil coming from agriculture/ forest land as well as wasteland</p> <p>3 Soil from wastelands</p>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6	<p><i>Efficient use of resources: Energy and water</i></p> <p>1 Use of fossil fuels and water</p> <p>2 Use either fossil fuel or water</p> <p>3 Does not use fossil fuel and water</p>			<input type="checkbox"/>		<input type="checkbox"/>	
7	<p><i>Reduction in GHG emissions</i></p> <p>1 Leads to GHG emissions</p> <p>2 Neither contributes to GHG emissions nor reduction</p> <p>3 Reduces GHG emissions and/or captures GHG</p>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8	<p><i>Reuse/recycling of waste</i></p> <p>1 Generates waste that is not being reused or recycled</p> <p>2 Generates waste that is being reused or recycled</p> <p>3 Waste is not generated</p>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Identification of Skills-related Issues and Opportunities

For identifying skill-related issues and opportunities discussions were conducted, both with demand side representatives and supply side representatives like panchayat members and different officials at block and district levels. The issues related to skills upgradation were assessed against the potential for alignment with MGNREGA works.

For Monitoring Green Jobs and Decent Work in MGNREGA

The monitoring mechanisms for green jobs in MGNREGA were ascertained by generating in-depth awareness on existing monitoring mechanisms and testing out the indicators and innovative mechanisms through dialogue with block and district level functionaries.



FINDINGS AND ANALYSIS



Nature of Work Implemented Under MGNREGA in Kaimur

The nature of tasks undertaken in the district can be categorised as rural connectivity, water conservation and harvesting, renovation of traditional water harvesting structures, drought proofing, irrigation channels, irrigation facility to SC/ST families, land development and others.

For the financial years (FY) 200708, 200809 and 200910, the total number of tasks implemented under MGNREGA were 849, 1056 and 1180 respectively.

During the FY 200708 and 200809, a majority of the work was undertaken in the area of rural connectivity (34 and 35 per cent respectively) followed by renovation of traditional water harvesting structures (24 per cent for both years). It is understood that over the last three years, there has been a decline in the number of work undertaken under rural connectivity, with an upsurge in the work undertaken in the area of irrigation channels, work on private land of SC and ST families and land development (see graph towards right). Considering the drought conditions of the district, this may be viewed as a positive trend that supports strengthening of local livelihoods as well as the natural resource base.

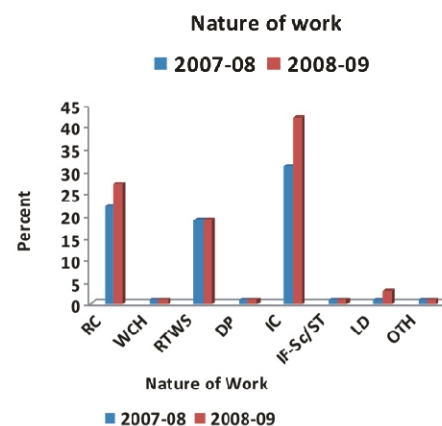
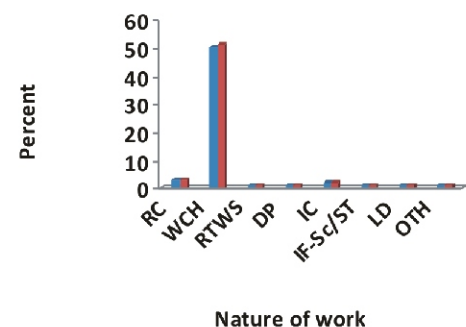
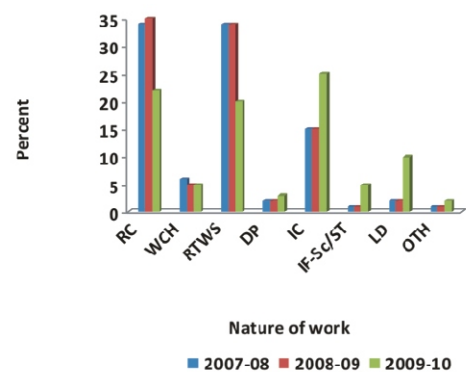
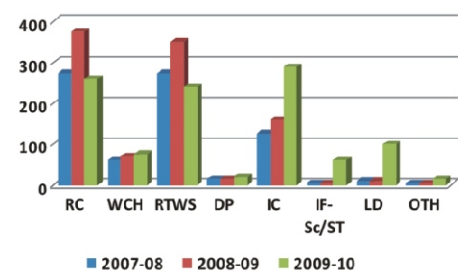
In the CD Blocks of Adhoura, 59 and 60 works were undertaken during the FY 200708 and 200809, while in Durgawati it was 80 and 99 respectively. In Adhoura there is a potentially higher bias towards water conservation and harvesting works (over 88 per cent for both years) whereas in Durgawati majority of the works were undertaken in the area of irrigation channels (41 and 44 per cent for FY 200708 and 200809), followed by rural connectivity (28 and 29 per cent for FY 200708 and 200809) and renovation of traditional water harvesting structures (25 and 20 per cent for FY 200708 and 200809). The comparative analogy clearly reveals that Durgawati has a strong and rich mix of work being undertaken under MGNREGA (see graph towards left).

MGNREGA Work: Co-relationship between Decent Work and Environmental Sustainability

Decent Work: Findings

The assessment of decent work under MGNREGA is based on the assessment of the four pillars of decent work, namely, employment, social protection, social dialogue and rights-related indicators. In the context of

Nature of work under NREGS in Kaimur District



MGNREGA, each of these indicators was further unpacked into sub-indicators and each of these sub-indicators was assessed at each of the worksites selected for the study. The assessment and the score achieved by each of the indicators is given in Table 8.

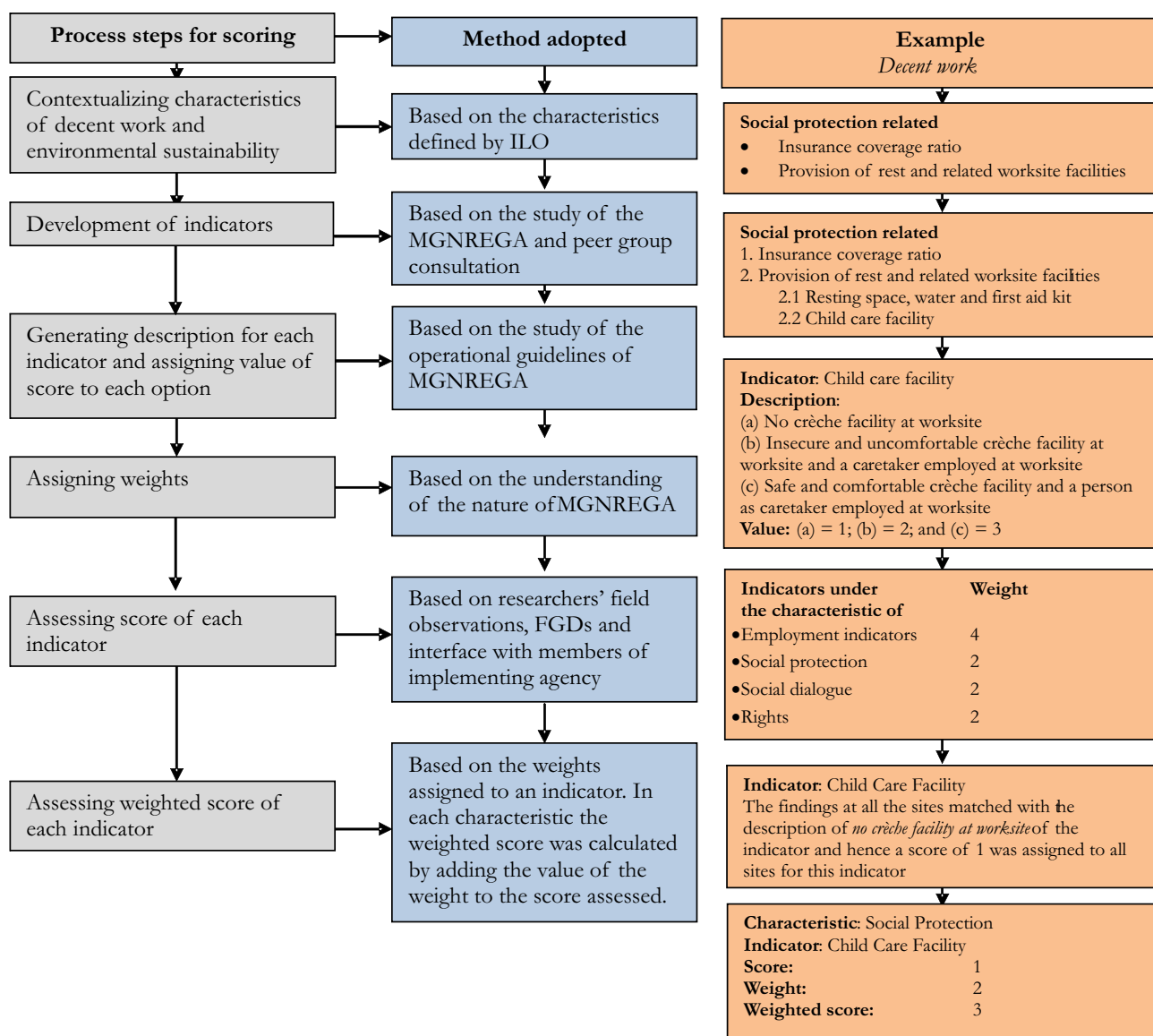
Table 8. Decent work indicators and scores obtained for three major types of works

S. No.	Indicator	Type of work (score)		
		Rural connectivity	Minor irrigation	Water connectivity
1	Employment indicators	12	12	12
1.1	Days of employment realised against demand for employment	3	3	3
1.2	Place of work	3	3	3
1.3	Nature of work	1	1	1
1.4	Realisation of minimum wages	3	3	3
1.5	Timely payment of wages	2	2	2
2	Social protection	4	4	4
2.1	Insurance coverage ratio	1	1	1
2.2	Provision for rest and related facilities at worksite	2	2	2
2.3	Child care facility	1	1	1
3	Social dialogue	3	3	3
3.1	Presence of labour groups	1	1	1
3.2	Participation in planning	1	1	1
3.3	Awareness programme on HIV/AIDS	1	1	1
4	Rights	15	16	17
4.1	Incidence of child labour	3	3	3
4.2	Hours of work and its seasonal distribution	2	2	2
4.3	Incidence of discrimination	1	2	3
4.4	Employment to SCs	3	3	3
4.5	Employment to STs	3	3	3
4.6	Employment to women	3	3	3
	TOTAL	34	35	36

The score for each of the sub-indicators includes assessment of the present state of the works on three pre-defined options. The options have been determined in a manner where the third option reflects the ideal condition and state and the first option is the undesirable state. The middle option is taken as the benchmark for the indicator. For example, for the indicator Days of Employment Realised against Demand for Employment, the ideal condition is defined as 91 per cent to 100 per cent of the days of employment demanded realised. This option has been assigned a score of three. The least preferred option is up to 50 per cent of the employment demanded realised and assigned a value of one. The middle benchmark option is 51 to 90 per cent of the employment demanded realised and assigned the value of two.

Since there are 17 indicators in all, the lowest score that the worksite can score is 17 and the highest is 51. For a worksite to qualify and get identified as a decent job site, it should score at least the benchmark score of 34. Based on this, all the selected sites attain or cross the benchmark score of 34 and just about qualify as decent with insignificant variation. (Refer Annexure 5 for methodology for assigning weights to the indicators and detailed table elaborating the calculation for deriving weights).

Flow chart for calculation of weighted score of indicators



However, given the character of MGNREGA, where the prime focus is to generate employment, it is logical that this factor be given a higher weightage than other factors of decent work. Consequently, the present study has assigned a 40 per cent weightage to employment-related indicators and 20 per cent each to the other three indicators. The weighted score of the indicators for the selected works on the basis of weights is given in Table 9.

Table 9. Cumulative weighted score against benchmark scores for decent work indicators

S. No.	Indicator	Benchmark score	Type of work (weighted scores)		
			Rural connectivity	Minor irrigation	Water conservation
1	Employment indicators	30	32	32	32
2	Social protection	12	10	10	10
3	Social dialogue	12	9	9	9
4	Rights	24	27	28	29
	TOTAL	78	78	79	80

Thus, within the weighted scoring system, only the indicator related to employment and rights is able to cross its benchmark value. The other indicators, namely, those related to social protection and social dialogue are identified with low scores, and as being weak and affecting the overall score for decent work.

The ensuing paragraphs assess each of the indicators to identify the reasons for low scores, as well as areas where more work needs to be done.

1. Employment Indicators

Employment on demand

The MGNREGA enables state governments to use fiscal and legal instruments to address the twin issues of unemployment and poverty by guaranteeing livelihood security to rural households. The Act thus provides for 100 days of guaranteed wage employment every financial year to every rural household whose adult member is willing to do unskilled manual work. The programme thus signifies an important paradigm shift, in that it is driven by demand of workers compared to the earlier supply driven programmes. To enable workers to express their demand, there are specific provisions for registration of workers by issuing job cards for the household and for the registration of a demand-for-work application and issue of dated receipt of the application.

The discussions with the workers on site and perusal of documents reveal that:

- Workers are not aware that they have to demand work from the Gram Panchayat.
- Workers are informed by the mukhiya/ward member to report to the worksite if they are interested in seeking employment.
- An undated signed application from workers that are employed is filed with the Gram Panchayat.

The net result of this practice is that the figures for households demanding work and households provided work will always remain the same and there will be no need to pay the unemployment allowance to the worker. Moreover, based on documents, it would appear that the number of days demanded by the worker have been provided to him/her as there is no mention of the number of days of work demanded in the application filed by the labourer.

However, during discussions with workers, it was found that they were willing to work for more number of days, but they were either asked not to come for work or the work was completed and hence no more work was immediately available. Secondly, in no case was the starting of the work based on the expressed desire of the labourer. It was started because the funds for the works had been received by the panchayat and they had been given instructions to start the works as soon as possible. Thus, the number of days of employment

provided does not bear resemblance to the number of days of demand for employment from the labourers. The score of the indicator is given in Table 10.

Table 10. Scores for days of employment realised as proportion of employment demanded

Indicator	Score	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Days of employment realised against employment demanded	1	Up to 50% days of the employment demanded	3	3	3	3	3
	2	51% to 90% of the days of employment demanded					
	3	91% to 100% of the days of employment demanded					

Note: R1 and R2 are related to rural connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to micro irrigation works located in Padhauti Gram Panchayat and WH5 is water harvesting work located in Ramgarh Gram Panchayat.

Through the records it was understood that in all the works for which observations were made, the workers secured 100 per cent of the days of employment demanded.

Place of work

The provisions of MGNREGA state that as far as possible work should be given to the worker within the same Gram Panchayat and within 5 km of his/her place of residence. This is accorded first priority. However, in case the worksite is more than 5 km away, the worker should be paid an additional 10 per cent of the wages as transportation cost. This aspect is however not covered under the present MIS of MGNREGA, either at the district, state or central levels. The score of the indicator is given in Table 11.

Table 11. Scores for distance to place of work

Indicator	Value	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Place of work	1	More than 5 km with no payment of additional 10% of wages as transportation cost	3	3	3	3	3
	2	More than 5 km with payment of additional 10% of wages as transportation cost					
	3	Within 5 km from the place of residence					

Note: R1 and R2 are related to rural connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to micro irrigation works located in Padhauti Gram Panchayat and WH5 is water harvesting work located in Ramgarh Gram Panchayat.

The workers from the local village had been employed at the sites that were covered by the study. As a result, the worksite was within 5 km from their residence. Yet, from the monitoring point of view, it is important that the data on place of work be generated and analysed to ensure that workers are being paid their entitled transportation cost.

Nature of work

Though MGNREGA guarantees unskilled work only, yet the guidelines state that the work should be allotted according to the ability of the worker. The aim is to create space and opportunity for persons with special needs, the elderly and pregnant women to benefit from the programme. This also necessitates that the tasks to be done by these

persons be defined separately, so that their work is also assessed and a fair daily wage paid to them. To assess this aspect, the study undertook worksite observations as well as discussed the issue during FGDs with the workers and made the following assessments (Table 12).

Table 12. Scores for nature of work

Indicator	Value	Description	Findings (sites visited)				
			R1	R2	Mi3	MI4	WH5
Nature of work	1	Work allotted on the basis of neither physical condition (age/skill) nor special condition (pregnancy/disability)	1	1	1	1	1
	2	Work allotted on the basis of physical condition (age/skill) but not on special condition (pregnancy/disability)					
	3	Work allotted on the basis of physical condition (age/skill) and special condition (pregnancy/disability)					

Note: R1 and R2 are related to rural connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to micro irrigation works located in Padhauti Gram Panchayat and WH5 is water harvesting work located in Ramgarh Gram Panchayat.

The study observed that the elderly were allotted the same work of digging earth as an able-bodied young person. This puts the elderly at a disadvantage because of their decreased ability to undertake and accomplish the same work within the same time and with the same effort. At the site there were other opportunities where the elderly could have been employed, e.g., giving water to other workers, undertaking clearing and dressing jobs (instead of digging), and in the case of elderly women, tending to and looking after children in the crèche.

Wage realisation

The job in MGNREGA is broken into specific tasks and time and motion studies have defined the task that should be accomplished in a day to constitute a fair day's work. For example, in case of excavation, 80 cubic feet of earth for men and 66 cubic feet for women have been defined as comprising one day's wages for the workers in Kaimur district. These standards have been set in the schedule of rates and the wages are set against these standards. Realisation of wages at the different worksites is given in Table 13.

Table 13. Scores for wage realisation

Indicator	Value	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Wage realisation	1	Up to 50% of the declared daily wage rate/commensurate to the measurement of work done	3	3	3	3	3
	2	51% to 99% of the declared daily wage rate/commensurate to the measurement of work done					

Indicator	Value	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
	3	100% of the declared daily wage rate/commensurate to the measurement of work done					

Note: R1 and R2 are related to rural connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to micro irrigation works located in Padhauti Gram Panchayat and WH5 is water harvesting work located in Ramgarh Gram Panchayat.

The workers were aware about the daily wage rate as well as the basis of earning these wages. The discussions with the workers and the implementing agency disclosed that there have been no instances of conflict regarding the amount of work done and the payment made. The rural community has sufficient experience in calculating their wages, based on the excavation work done.

Timely payment

The MGNREGA guidelines entitle the labourers to be paid on a weekly basis on a pre-specified day of the week. It states that in no case should they be paid after a fortnight from the date on which the work was done. The time taken in making payments to the workers at the selected sites is given in Table 14.

Table 14. Scores for timely payment

Indicator	Value	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Timely Payments	1	More than 15 days	2	2	2	2	2
	2	Between 7 to 15 days					
	3	On a weekly basis					

Note: R1 and R2 are related to rural connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to micro irrigation works located in Padhauti Gram Panchayat and WH5 is water harvesting work located in Ramgarh Gram Panchayat.

Wages at all the worksites were paid between 7 to 15 days. The delays were largely on account of delays in taking measurements, verification of these measurements by the Junior Engineer (JE), making labour-wise entries in the muster rolls and entering the measured information in the measurement book. Once this documentation was completed, the process of payment was initiated by way of sending advice to the bank/post office for depositing the amount in the respective accounts of the labourers. There is further delay on part of the bank/post office as they ask the labourer (and account holder) to come on a designated date to the bank/post office and get their identity verified by the mukhiya every time they withdraw money.

2. Social Protection

Insurance coverage ratio

The operational guidelines of MGNREGA provide that state governments can earmark a proportion of wages of the workers for different social security schemes including various insurances, survivor benefits and maternity benefits or other social security arrangements. However, such an arrangement for social security is to be voluntary in nature and should be with the consent of the labourer. None of the worksites that were visited during the study provided any insurance coverage to the labourers (Table 15). That is, the

employment conditions did not have any component of social security arrangements for the labourers.

Table 15. Scores for insurance coverage ratio

Indicator	Value	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Insurance coverage ratio (insured against uninsured among job card holders)	1	Up to 50% of job card holders covered for accident and life insurance	1	1	1	1	1
	2	51% to 75% of job card holders covered for accident and life insurance					
	3	Between 76% and 100% of job card holders covered for accident and life insurance					

Note: R1 and R2 are related to rural connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to micro irrigation works located in Padhauti Gram Panchayat and WH5 is water harvesting work located in Ramgarh Gram Panchayat.

Worksite facilities

MGNREGA defines the minimum worksite facilities that should be made available to labourers. These include a place with shade for shelter, drinking water including a person to fill water and make it available to the workers and a first aid kit in case of any accident at the worksite. Facilities at the worksites visited are given in Table 16.

Table 16. Scores for facilities at work sites

Indicator	Value	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Resting space, water and first aid kit	1	None of the facilities for resting space, drinking water and first aid kit are available	2	2	2	2	2
	2	Either one or two of the facilities for resting space, drinking water and first aid kit are available					
	3	All the facilities for resting space, drinking water and first aid kit are available					

Note: R1 and R2 are related to rural connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to micro irrigation works located in Padhauti Gram Panchayat and WH5 is water harvesting work located in Ramgarh Gram Panchayat.

The worksites had a place earmarked for taking rest that also provided shelter from the sun and drinking water facility. However, at none of the sites was the first aid kit available. The implementing agency informed that there is a first aid kit, but it was not available at the site.

Child care facility

MGNREGA stipulates that if there are more than five children at the worksite, a crèche facility has to be provided by the implementing agency and a person, preferably a woman, must be engaged as caretaker of the crèche from MGNREGA funds. None of the sites visited had any crèche facility (Table 17).

Table 17. Scores for child care facilities at work sites

Indicator	Value	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Child care facility	1	No crèche facility at worksite	1	1	1	1	1
	2	Insecure and uncomfortable crèche facility and a person as caretaker employed at worksite					
	3	Safe and comfortable crèche facility and a person as caretaker employed at worksite					

Note: R1 and R2 are related to rural connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to micro irrigation works located in Padhauti Gram Panchayat and WH5 is water harvesting work located in Ramgarh Gram Panchayat.

3. Social Dialogue

Presence of labour groups

This indicator seeks to assess whether labour groups are organised and whether they have the space and opportunity for collective bargaining. The situation with respect to the worksites selected is given in Table 18.

Table 18. Scores for presence of labour groups

Indicator	Value	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	Wh5
Presence of labour groups	1	No labour groups exist	1	1	1	1	1
	2	Informal labour groups exist					
	3	Formal labour groups exist					

Note: R1 and R2 are related to rural connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to micro irrigation works located in Padhauti Gram Panchayat and WH5 is water harvesting work located in Ramgarh Gram Panchayat.

The labourers at the worksites were unorganised and there were neither formal nor informal groups.

Participation in planning

The plans for MGNREGA works are to be prepared and approved by the Gram Sabha. The operational guidelines of the state government have provided for specific dates by which the plans from the Gram Sabha have to be approved and transmitted through the Gram Panchayat to the block level and then to the district level panchayati institutions. The manner of participation for preparation of plans for MGNREGA is given in the Panchayati Raj Act for Bihar. The manner and extent of participation of the labourers engaged in MGNREGA works is given in Table 19.

Table 19. Scores for labour participation in planning

Indicator	Value	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Participation in planning	1	Inappropriate approval of plans of MGNREGA	1	1	1	1	1
	2	Plans for MGNREGA approved in the second meeting of the Gram Sabha as per the conditions of Panchayati Raj Act, Bihar					
	3	Plans for MGNREGA approved in Gram Sabha meeting with 1/20th representation (first quorum condition of Panchayati Raj Act, Bihar)					

Note: R1 and R2 are related to rural connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to micro irrigation works located in Padhauti Gram Panchayat and WH5 is water harvesting work located in Ramgarh Gram Panchayat.

Labourers reported during discussions that they had not participated in the preparation of planning for the MGNREGA works they were working on. In fact they were categorical that the plans were never discussed in the Gram Sabha meetings. The plans were prepared by the members of the Gram Panchayat and approval sought by sending the register for signatures to the houses of selected members of the Gram Sabha.

Awareness programme on HIV/AIDS

There have been no formal or informal awareness programmes on HIV/AIDS at the MGNREGA worksites. The assessment of the worksites on this indicator is given in Table 20.

Table 20. Scores for HIV/AIDS awareness programmes for workers

Indicator	Value	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Awareness programme on HIV/AIDS for workers (numbers)	1	Awareness programme on HIV/AIDS not conducted	1	1	1	1	1
	2	Awareness programme on HIV/AIDS conducted non- formally					
	3	Awareness programme on HIV/AIDS conducted formally					

Note: R1 and R2 are related to rural connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to micro irrigation works located in Padhauti Gram Panchayat and WH5 is water harvesting work located in Ramgarh Gram Panchayat.

4. Rights

Incidence of child labour

Neither during the worksite observation, nor during discussions with the labourers, was any incidence of child labour reported or observed (Table 21).

Table 21. Scores for incidence of child labour

Indicator	Value	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Incidence of child labour	1	Child labour observed and is rampant	3	3	3	3	3
	2	Child labour observed but not rampant					
	3	Not observed and not reported					

Note: R1 and R2 are related to rural connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to micro irrigation works located in Padhauti Gram Panchayat and WH5 is water harvesting work located in Ramgarh Gram Panchayat.

Hours of work and its distribution considering seasonal conditions

The decision on hours of work and the time of commencement of work is taken by the implementing agency, mostly unilaterally. There is virtually no participation of labourers in these decision making processes. The decision by participants, preferably unanimously, is an important indicator of ownership and a degree of discipline. Decision taking by the implementing agency may result in the selection of working hours that do not respect the current engagements and household obligations of the participating households. It has been widely reported by women that the worksite hours do not align with their household engagements and this affects their participation in MGNREGA works (Table 22).

Table 22. Scores for hours of work and its seasonal distribution

Indicator	Value	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Hours of work and its distribution considering seasonal conditions	1	Timing and hours of work is not at all decided by the participants	2	2	2	2	2
	2	Decision on timing of work and hours of work is not unanimous					
	3	Timing of work and hours of work unanimously decided by the participants					

Note: R1 and R2 are related to rural connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to micro irrigation works located in Padhauti Gram Panchayat and WH5 is water harvesting work located in Ramgarh Gram Panchayat.

Discrimination

This indicator assesses discrimination related to allotment of work keeping in view the physical condition and age of the labourers, and the distance to place of work from their place of residence. Table 23 gives the scores related to these aspects.

Table 23. Scores for incidence of discrimination

Indicator	Value	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Incidence of discrimination	1	Discrimination is observed but not recalled nor reported by the participants	1	1	2	2	3
	2	Incidence of discrimination recalled but not observed					
	3	No incidence of discrimination recalled or observed					

Note: R1 and R2 are related to rural connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to micro irrigation works located in Padhauti Gram Panchayat and WH5 is water harvesting work located in Ramgarh Gram Panchayat.

Employment to scheduled castes

To assess discrimination related to excluded groups, the study collected data related to the man days generated for SC groups and compared it to their proportion in the population of the district. Employment being accessed by SCs in the district is given in Table 24.

Table 24. Scores for employment to scheduled castes

Indicator	Value	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Employment to scheduled castes	1	% MGNREGA person-days generated for SCs is less than the proportion of SC households in the block	3	3	3	3	3
	2	% MGNREGA person-days generated for SC is equal to the proportion of SC households in the block					
	3	% MGNREGA person-days generated for SC is equal to or more than the proportion of SC households in the block					

Note: R1 and R2 are related to rural connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to micro irrigation works located in Padhauti Gram Panchayat and WH5 is water harvesting work located in Ramgarh Gram Panchayat.

Employment to scheduled tribes

To assess discrimination related to ethnic groups, the study collected data related to the man days generated for ST groups and compared it to their proportion in the population of the district. Employment being accessed by ST groups in the district is given in Table 25.

Table 25. Scores for employment to scheduled tribes

Indicator	Value	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Employment to scheduled tribes	1	% MGNREGA person-days generated for STs is less than the proportion of ST households in the block	3	3	3	3	3
	2	% MGNREGA person-days generated for STs is equal to the proportion of ST households in the block					
	3	% MGNREGA person-days generated for STs is equal to or more than the proportion of ST households in the block					

Note: R1 and R2 are related to rural connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to micro irrigation works located in Padhauti Gram Panchayat and WH5 is water harvesting work located in Ramgarh Gram Panchayat.

Employment to women

MGNREGA provides that 33 per cent of the person-days generated should be for women. The implementing agency has been made accountable to ensure that priority is given to women in such a manner that one-third of the benefits under MGNREGA are provided to them as a group. The situation in the district regarding employment for women under MGNREGA is given in Table 26.

Table 26. Scores for employment to women

Indicator	Value	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Employment to women	1	% MGNREGA person-days generated for women is less than 17% in the block	3	3	3	3	3
	2	% MGNREGA person-days generated for women is between 18-32% in the block					
	3	% MGNREGA person-days generated for women is equal to or more than 33% in the block					

Note: R1 and R2 are related to rural connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to micro irrigation works located in Padhauti Gram Panchayat and WH5 is water harvesting work located in Ramgarh Gram Panchayat.

5. Worksite Occupational Health and Safety (OHS) Issues

The inferences on OHS have been drawn through worksite observation since these issues are not identified as important factors, either by the participating demand side representatives or the supply side actors. Though the Act stipulates certain worksite facilities, none of the worksites visited had basic provisions like space for taking rest or a first aid kit. In a few of the worksites even drinking water was not stored and readily available.

People were found to be working in harsh conditions, continuously and in ergonomically non-acceptable

positions. One of the workers at a worksite, when quizzed on safety said, 'Akushal kaam hai saab, garibon ke liye hai aur choti moti chot to jayaaz hai' (It's all unskilled work, sir and NREGA is for poor people. Therefore, small wounds or hazards do not bother us). The workers were found to be continuously exposed to dust and the women prone to drudgery. Introduction of simple implements like a wheel barrow can substantially reduce the drudgery at worksites. Provision of hand gloves and face masks will further improve safety conditions at worksites and support decent workplace conditions.



Environmental Sustainability: Findings

MGNREGA projects in Kaimur district were largely concentrated in rural connectivity, water conservation and water harvesting and micro irrigation. Environmental sustainability was assessed (Table 27) by using the indicators listed in Table 4.

Table 27. Scores for environmental sustainability

S. no.	Indicator	Type of work (score)		
		Rural connectivity	Micro irrigation	Water conservation
1	<i>Protection of ecosystems and development of the capacity for ecosystem services</i>	7	8	8
1.1	Land management and planning (1)	1	1	1
1.2	Land management and planning (2)	2	2	2
1.3	Protection and maintenance of water systems	2	3	3
1.4	Protection and maintenance of forests	2	2	2
2	<i>Energy efficiency or renewable sources of energy</i>	3	3	3
2.1	Increase in energy efficiency (reduced use of energy)	3	3	3
3	<i>Resource efficiency</i>	5	6	6
3.1	Efficient use of water (1)	3	3	3
3.2	Efficient use of water (2)	2	3	3
4	<i>Reduction in GHG emissions or increase of GHG capture capacity</i>	4	4	4
4.1	Reduction in GHG emission direct	2	2	2
4.2	Reduction in GHG emission indirect	2	2	2
5	<i>Environmentally sound management of waste</i>	3	3	3
5.1	Reuse and recycling of waste	3	3	3
	TOTAL	22	24	24

The benchmark score to qualify as environmentally sustainable works is 20 in an equal weight regime. According to this, three types of works rural connectivity, micro irrigation and water harvesting structures qualify as being environmentally sustainable works. However, given the nature and objective of MGNREGA, i.e., to strengthen the natural resource base, the indicator related to ecosystem protection and maintenance is much more important than any of the other indicators. The study thus assigned it a weight of

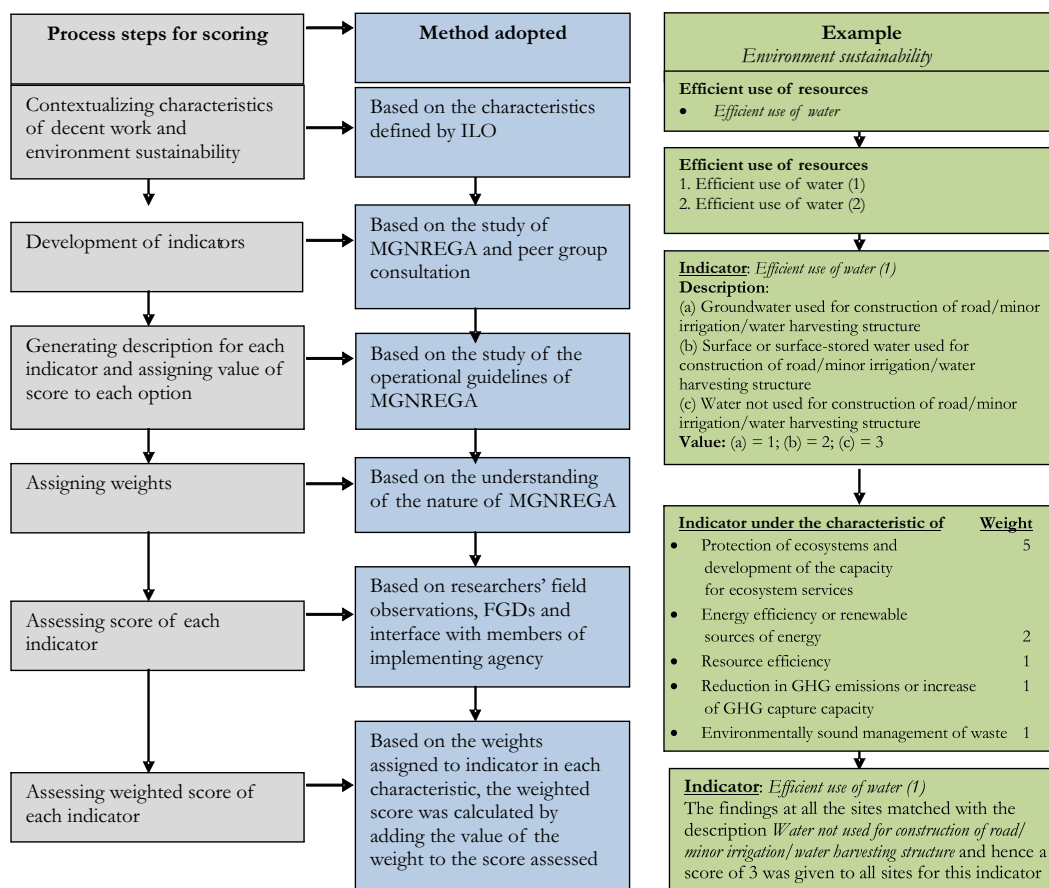
50 per cent within the five critical environmental indicators. Second, among the remaining three indicators in the context of MGNREGA, where 60 per cent of the expenditure has to be on unskilled work, it should be reflected in the use of manual energy as compared to energy used through machines. Consequently, the indicator related to energy efficiency has been assigned a weight of 20 per cent and the remaining three indicators a weight of 10 per cent each. The weighted score of the five indicators is given in Table 28.

Table 28. Weighted scores for environmental sustainability

S. no.	Indicator	Type of work (weighted score)		
		Rural connectivity	Minor irrigation	Water conservation
1	Protection of ecosystems and development of the capacity for ecosystem services	27	28	28
2	Energy efficiency or renewable sources of energy	5	5	5
3	Resource efficiency	7	8	8
4	Reduction in GHG emissions or increase of GHG capture capacity	6	6	6
5	Environmentally sound management of waste	4	4	4
	TOTAL	49	51	51

Within the weighted score regime, the maximum score that can be generated is 57 and the minimum score 37. The benchmark score that qualifies for the work to be identified as environment friendly is 48, which in the above case is achieved by all the three types of works.

Flow chart for calculation of weighted score of indicators



1. Protection and Maintenance of Ecosystems and Development of Ecosystem Services

Land management and planning (1)

The main work under MGNREGA is excavation of earth, whether it is for construction of roads, canals or water harvesting structures. The main issue, however, is the place from where the earth is excavated. If the earth is excavated from agriculture and/or forest areas, it has been taken to imply that productive and fertile land has been displaced and these have been given a lower score than where earth is excavated from wasteland. The score on this count for the sites selected for the study is given in Table 29.

Table 29. Scores for land management and planning source of soil

Indicator	Score	Description	Findings (sites visited)				
			R1	R2	Mi3	Mi4	Wh5
Land management and planning (1)	1	Soil excavated from agriculture/forest land	1	1	1	1	1
	2	Soil excavated from agriculture/forest lands and wasteland					
	3	Soil excavated from wasteland					

Note: R1 and R2 are related to Rural Connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to Micro Irrigation works located in Padhauti Gram Panchayat and WH5 is the Water Harvesting work located in Ramgarh Gram Panchayat

In all the three cases, earth has been excavated from agricultural fields and hence these have been given a low score since they have displaced fertile and productive soil from the field.

Land management and planning (2)

The second factor that would have strengthened the natural resource base of land is related to whether it has created a structure that would arrest soil erosion. This relates to the way the structure has been made and also the design that ensures compacting and compression of soil so that it does not wash away during or after rains. The scores achieved by the worksites are given in Table 30.

Table 30. Scores for land management and planning prevention of soil erosion

Indicator	Score	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Land management and planning (2)	1	Road/minor irrigation/water harvesting have not led to creation of structures that arrest soil erosion	2	2	2	2	2
	2	Road/minor irrigation/water harvesting have led to creation of structures that arrest soil erosion, but have not undertaken physical or vegetative compacting					
	3	Road/minor irrigation/water harvesting have led to creation of structures that arrest soil erosion and have undertaken physical or vegetative compacting					

Note: R1 and R2 are related to Rural Connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to Micro Irrigation works located in Padhauti Gram Panchayat and WH5 is the Water Harvesting work located in Ramgarh Gram Panchayat

In the absence of compaction of any kind, either physical or vegetative, the chances that the soil will be washed away during and after rains are high. Discussions with JEs responsible for designing the sites revealed that they were totally fixated on the non-use of machines and this meant that they did not provide for compacting of any kind. The guidelines, however, are flexible and stipulate that 40 per cent of the cost can be on materials. In this case, rolling or hammering could have been used, which would have been a labour intensive method of compaction.

Protection and maintenance of water systems

The structure constructed should be designed in a manner that it does not lead to water logging in which case it would be diminishing land as a natural resource. Thus, if the structure does not lead to water logging, it would score high on the indicator of environmental sustainability. The scores at the sites selected for the study are given in Table 31.

Table 31. Scores for protection and maintenance of water systems

Indicator	Score	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Protection and maintenance of water systems	1	Road/minor irrigation/water harvesting create water logging	2	2	3	3	3
	2	Road/minor irrigation/water harvesting do not create water logging					
	3	Road/minor irrigation/water harvesting lead to efficient use of irrigation system					

Note: R1 and R2 are related to Rural Connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to Micro Irrigation works located in Padhauti Gram Panchayat and WH5 is the Water Harvesting work located in Ramgarh Gram Panchayat

The roads were designed in such a way that they did not lead to water logging and there were provisions for outlet through a huge pipe. In the case of minor irrigation works, construction of field channels and earthen dams promote efficient use of water and also replace pumping of water through pumps that use fossil fuel. As a result, minor irrigation and water harvesting structures score high on energy efficiency and reduction of GHGs.

Protection and maintenance of forests

There are two aspects that relate to forests in the implementation of works under MGNREGA. One, whether implementation has led to cutting of trees or other vegetation and, second, whether the works have enhanced the tree or vegetative cover as part of the construction. The scores achieved by the selected worksites are given in Table 32.

Table 32. Scores for protection and maintenance of forests

Indicator	Score	Description	Findings (Sites Visited)				
			R1	R2	MI3	MI4	WH5
Protection and maintenance of forests	1	Road/minor irrigation/water harvesting have led to cutting of trees	2	2	2	2	2
	2	Road/minor irrigation/water harvesting have not led to cutting of trees and neither have they planted trees or other vegetation					
	3	Road/minor irrigation/water harvesting have planted trees and/or other vegetation					

Note: R1 and R2 are related to Rural Connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to Micro Irrigation works located in Padhauri Gram Panchayat and WH5 is the Water Harvesting work located in Ramgarh Gram Panchayat

Though the construction of roads, fixed channels and earthen dams have not been effected by cutting of trees or other vegetation, construction of these structures have also not incorporated designs to plant more trees or other vegetation, either as part of catchment treatment, or embanking, or for compacting. Hence these sites have scored two for the different worksites covered under the study.

2. Energy Efficiency

Increase in energy efficiency

One of the critical elements of MGNREGA is the use of manual labour, which in terms of environmental friendliness has the potential to score high. This has been reflected in the score for the sites selected for the study in Table 33.

Table 33. Scores for increasing energy efficiency

Indicator	Score	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Increase in energy efficiency	1	More than 50% of the works for road/minor irrigation/water harvesting have been done by machines that run on fossil fuel	3	3	3	3	3
	2	Less than 50% of the works for road/minor irrigation/water harvesting have used machines that run on fossil fuel and the remaining work has been done by manual labour					
	3	100% of the works has been done by manual labour in the construction of road/minor irrigation/water harvesting					

Note: R1 and R2 are related to Rural Connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to Micro Irrigation works located in Padhauri Gram Panchayat and WH5 is the Water Harvesting work located in Ramgarh Gram Panchayat

3. Resource Efficiency

Efficient use of water (1)

Water is used during construction for various purposes. The source from where water is drawn is of importance. Using surface water as opposed to underground water will be considered more environmentally friendly. Scores achieved by the sites selected for the study are given in Table 34.

Table 34. Scores for efficient use of water source of water

Indicator	Score	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Efficient use of water (1)	1	Groundwater used for construction of road/minor irrigation/water harvesting structures	3	3	3	3	3
	2	Surface or surface-stored water used for construction of road/minor irrigation/water harvesting structures					
	3	Water not used for construction of road/minor irrigation/water harvesting structures					

Note: R1 and R2 are related to Rural Connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to Micro Irrigation works located in Padhauti Gram Panchayat and WH5 is the Water Harvesting work located in Ramgarh Gram Panchayat

Efficient use of water (2)

The second aspect of the use of water is related to whether the construction of the structure has enhanced the efficiency of the manner in which water is used. It is clear that the construction of roads has not affected the manner in which water is used, though construction of canals and earthen dams as water harvesting structures has improved the efficiency of water use (Table 35).

Table 35. Scores for efficient use of water

Indicator	Score	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Efficient use of water (2)	1	Construction of road/minor irrigation/water harvesting structures has decreased the efficiency in the way water is being used	2	2	3	3	3
	2	Construction of road/minor irrigation/water harvesting structures has not affected use of water in any way					
	3	Construction of road/minor irrigation/water harvesting structures has enhanced the efficiency of water use					

Note: R1 and R2 are related to Rural Connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to Micro Irrigation works located in Padhauti Gram Panchayat and WH5 is the Water Harvesting work located in Ramgarh Gram Panchayat

4. Reduction in GHG Emissions and Increase of GHG Capture Capacity

There are twin aspects of GHG emissions in MGNREGA works: one is direct and is related to whether the process of construction leads to increase or reduction of GHG emissions and the second is indirect and related to the use of the structure (whether it has led to or reduced carbon emissions). Both these aspects have been scored for the sites visited during the study, as indicated in Tables 36 and 37.

Reduction in GHG emissions direct

Table 36. Scores for direct reduction in GHG emissions

Indicator	Score	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Reduction in GHG emissions direct	1	Construction of road/minor irrigation/water harvesting structures will lead to GHG emissions	2	2	2	2	2
	2	Construction of road/minor irrigation/water harvesting structures will neither lead to nor reduce GHG emissions					
	3	Construction of road/minor irrigation/water harvesting structures will reduce GHG emissions					

Note: R1 and R2 are related to Rural Connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to Micro Irrigation works located in Padhauri Gram Panchayat and WH5 is the Water Harvesting work located in Ramgarh Gram Panchayat

Thus, in case of the use of processes in the implementation of works, the MGNREGA works are carbon neutral in that they neither emit nor reduce GHG in their implementation.

Reduction in GHG emissions indirect

Table 37. Scores for indirect reduction in GHG emissions

Indicator	Score	Description	Findings (sites visited)				
			R1	R2	MI3	MI4	WH5
Reduction in GHG emissions indirect	1	The use of road/minor irrigation/water harvesting structures has lead to GHG emissions	2	2	2	2	2
	2	The use of road/minor irrigation/water harvesting structures has neither led to nor reduced GHG emissions					
	3	The use of road/minor irrigation/water harvesting structures has reduced GHG emissions					

Note: R1 and R2 are related to Rural Connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to Micro Irrigation works located in Padhauri Gram Panchayat and WH5 is the Water Harvesting work located in Ramgarh Gram Panchayat

The assets constructed have an indirect impact on emissions through an increase in the manufacturing of the materials used. This increase would be more significant for micro irrigation and water harvesting structures. However, this contribution would be deemed negligible in the present case.

5. Environmentally Sound Management of Waste

The fifth cluster of indicators to review environmental sustainability relates to the degree of elaboration of waste management practices. This includes aspects such as whether waste is being generated in the first place; whether it can be minimised or prevented; whether it can be recycled, reused, recovered; and how it is disposed of. The worksites studied did not generate waste. Hence they achieved a score of three on this indicator (Table 38).

Table 38. Scores for environmentally sound management of waste

Indicator	Score	Description	Findings (Sites Visited)				
			R1	R2	MI3	MI4	WH5
Environmentally sound management of waste	1	Generates waste that is not being reused or recycled	3	3	3	3	3
	2	Generates waste that is being reused or recycled					
	3	Waste is not generated					

Note: R1 and R2 are related to Rural Connectivity located in Masoda Gram Panchayat; MI3 and MI4 are worksites related to Micro Irrigation works located in Padhauri Gram Panchayat and WH5 is the Water Harvesting work located in Ramgarh Gram Panchayat

Environment Friendliness

Three types of worksrural connectivity, micro irrigation and water harvesting structures have qualified as environmentally sustainable based on the scores achieved on all the indicators. However, micro irrigation and water harvesting structures appear to be more environmentally friendly as these works have the twin advantage of strengthening both land and water as a natural resource as well as bringing efficiency in the use of water.

The missed opportunity by all three types of works under MGNREGA is to tap the potential of planting trees and other vegetation that would offer the dual advantage of vegetative compaction of soil as well as regenerating the tree cover to enhance the capacity to capture GHG.

6. MGNREGA: Sustaining Green

This section specifies the areas in which the different works score higher and a comparison between different works.

Although the majority of the works undertaken under MGNREGA would qualify as environmentally friendly, some nuances need to be understood. The current way of execution staunchly advocates maintenance of a 60:40 wage and material ratio for each work level, thus at times compromising on the quality of works undertaken and also the premise of creation of durable assets. For instance, work related to rural connectivity currently does not take into account the factor of compaction of loose soil that supports the durability factor due to a stereotyped way of technical planning and estimation. Thus, there is very low dependence on material component that helps the work qualify on indicators of environmental friendliness.

If the durability of assets attains the kind of prominence that it is not getting at this point of time, the requirement of durable materials will increase significantly with some indirect/direct environmental impacts. Thus, the backward segment of the value chain also needs to be green for the overall green-ness of MGNREGA work. The current production practices for different kinds of materials are widely reported to be non-green entities like red bricks from traditional brick clamps that generate high volumes of CO2 emissions. With an upsurge in demand of materials like bricks, cement, boulders, tree-guards, etc, to ensure durability of assets and thus strengthening of livelihoods, effort is also required towards the greening of the material supply end to further improve the environmental sustainability of MGNREGA.

Skills-related Issues and Opportunities

MGNREGA is largely regarded as a programme that engages and promotes unskilled labour. Any involvement of a skilled workforce technically becomes part of the material cost under the 60:40 wage and material ratio that is to be followed by state governments. There have been diverse experiences of distinct extremities of skill migration, wherein skilled workforce migrates to unskilled domains of work as the wage realisation in the skilled domain of work is poor due to exploitation or poor access to markets; and reluctance among several eligible and potential demand side representatives to participate in MGNREGA work due to perceived threat of untimely and complicated payments.

Arguments have been put forward regarding MGNREGA being just a safety net for citizens in realising economic security in situations of distress. It has been said that in no way can it be generous enough to ensure year long employment guarantee for a family. Evolving from a safety net to higher tiers of economic empowerment will always call for acquisition of skills that support better income accruals and economic viability for a family. Thus, skill upgradation can help MGNREGA become decent and environmentally friendly to begin with and then transcend across other domains of economic activity that support greening of other sectors and also higher income accruals.

There are certain skill upgradation possibilities that cut across different sectors of work undertaken under MGNREGA, while some are sector specific. Table 39 summarises the possible areas of skill development, possible synergies that can be established with MGNREGA and also explores other possible areas and sectors that can benefit out of this development.

Table 39. Skill upgradation in synergy with MGNREGA

Skill upgradation possibilities and target audience	Synergy with MGNREGA	Alignment with other sectors
Integrated and holistic planning <i>PRI members</i>	Supports identification of works that contribute towards creation of durable assets and strengthens natural resource base.	Supports convergent action and resource pooling-like MGNREGA, BRGF, 12 th Finance Commission, etc that ensure magnification in development works and opens avenues for higher realisation of development funds.
Estimation and measurement related skills <i>educated and unemployed youth</i>	Service providers as mates under MGNREGA.	Service providers to other schemes/ programmes of the government and private works

Skill upgradation possibilities and target audience	Synergy with MGNREGA	Alignment with other sectors
		(BRGF, IAY, education department, ICDS, TSC, etc).
Administering first aid <i>- educated and unemployed youth</i>	As first aid providers at worksites.	Opportunities of engagement as paramedical staff with local dispensary, as contractual staff with PHC/CHC or independent service provider for the village community.
IRDA certified insurance agents <i>- educated and unemployed youth</i>	Insurance coverage to job card holders	Independent service provider.
Crèche management <i>women, persons with disabilities</i>	Management of crèche facility at the worksite.	Opportunities for running a crèche centre at the village level or getting employed at a play school or private crèche.
Green material suppliers <i>semi-skilled or traditional artisans</i>	Material supplier in MGNREGA works, e.g., saplings for afforestation works, green construction materials.	Servicing IAY beneficiaries, supply to government and/or private infrastructure development works, forest department.
Social auditors <i>- educated and unemployed youth, persons with disabilities</i>	Conduct social audits under MGNREGA.	Opportunities to work in development sector.
Business correspondents <i>- educated and unemployed youth</i>	Support timely and efficient transactions to MGNREGA participants.	Servicing other clients.
Data entry operators <i>- educated persons</i>	Support timely updating of MIS of MGNREGA works.	Operate DTP centres and resource information centres or independent/ contractual services.

Monitoring Green Jobs and Decent Work Under MGNREGA

An elaborate monitoring system has been designed for tracking progress and outcomes under MGNREGA in the state. The system has been designed for all levels, including Gram Sabha, Gram Panchayat, Block and District Panchayat and the state level cell responsible for MGNREGA. To enable this system to function effectively, it is supported by an online comprehensive MIS that contains information related to key performance indicators at each level.

The operational guidelines for MGNREGA stipulate that the states (by the centre) and the districts (by the state) should be ranked annually on key performance indicators so as to enable evaluation of performance of the states/districts. The key performance indicators for this purpose include extent to which applications have been met; productive value of the completed work; quality of record-keeping and reporting; accessibility and transparency of MGNREGA documents; timeliness of wage payments; timeliness and quality of social audits; and involvement of Gram Sabhas.

The monitoring system for MGNREGA that has been designed and is in operation is given in Table 40.

Table 40. Monitoring systems for MGNREGA

S. no.	Monitoring agency	Monitoring parameter	Frequency of monitoring	Reporting and feedback
1	Gram sabha through the vigilance committee	<ul style="list-style-type: none"> - All works under MGNREGA at village level - Registration and issue of job cards - Employment provided against those who have applied - Timely payment of wages 	Not stated	Not stated
2	Gram panchayat	<ul style="list-style-type: none"> - Works executed by other implementing agencies - Muster rolls maintained at worksites - Payments made to labourers 	As and when required	Monthly report submitted by PRS
3	Block panchayat	<ul style="list-style-type: none"> - Refer monthly progress report 	Weekly meeting with PRS at the block	Monthly consolidated report of the block sent by programme officer to district
4	District panchayat	<ul style="list-style-type: none"> - Refer monthly progress report 	Fortnightly meetings of programme officer at the district	Monthly consolidated report in the district format and through MIS system
5	State level	<ul style="list-style-type: none"> - Refer monthly progress report 	Monthly meeting with DDC	Monthly consolidated report in the state format and through MIS system
6	External monitoring through quality monitors	Terms of reference developed for central, state and district progress and quality monitoring of works	No fixed cycle	Quality reports submitted at the central, state and district levels

The parameters monitored through the monthly progress report are given in Table 41.

Table 41. Parameters monitored through the monthly progress report

S. no.	Monitoring parameter	Unit and levels of disaggregation
1	Issue of job card	Household-wise, caste-wise job cards issued
2	Demand for work and employment provided	Household
3	Person-days employment generated	Caste-wise; gender-wise; persons with disability; beneficiaries of IAY/land reform; households provided employment for 100 days in a financial year
4	Financial progress	Funds received from source and expenditure incurred on skilled/unskilled labourers, material and administrative costs
5	Physical progress	In-progress and completed works based on category of works
6	Mode of payment	Accounts opened and amounts disbursed through banks/post offices
7	Transparency in MGNREGA	Muster rolls issued, social audits conducted, works inspected, conduct of Gram Sabhas and complaints received
8	Training provided	For all functionaries under MGNREGA

The present monitoring system, though comprehensive in nature, is not suited to collect and monitor information related to decent work and environmentally friendly works. For example, the present monitoring system does not collect information on the number of persons who have been paid wages within the stipulated time period of 15 days. Similarly, it does not collect information on the facilities provided to workers at the site.

The present study recommends inclusion of the parameters listed in Table 42 for monitoring, so as to track the parameters related to decent and environmentally friendly works. These parameters can be monitored and tracked within the present monitoring set up that is based on reporting through the monthly progress report.

Table 42. Parameters for monitoring decent work and environmental sustainability in MGNREGA

S. no.	Parameter for monitoring	Data collection
<i>Decent work</i>		
1	Place of work	How far is the worksite from the place of residence of labour? In case of more than 5 km, have 10% of wages been paid as transportation cost?
2	Timely payment of wages	No. of workers paid wages within 15 days of their work
3	Facilities provided at worksite	Are the following facilities provided at the worksite? - Drinking water - First aid - Shade and shelter - Crèche
4	Insurance	Number of labourers opting for insurance or any other social security scheme
5	Grievances lodged vs. grievances addressed and mitigated	Number of complaints lodged and how many of them were addressed and mitigated

S. no.	Parameter for monitoring	Data collection
6	Injuries and accidents	Number and type of accidents and injuries reported from MGNREGA worksites Compensation paid for injuries and accidents
<i>Environmental sustainability</i>		
7	Share of environmentally friendly works under MGNREGA (to be measured in man-months, funds, etc)	On the basis that some works are more environment-related than others. (Drought proofing, minor irrigation, water conservation, flood control, renovation of water bodies should be highly marked.)
8	Increase in tree cover	Number and types of trees planted Survival rate of trees planted
9	Source of soil excavation for structures	Source from where soil is excavated for construction purposes
10	Number of trees felled for construction of structures	Number of trees felled Species of trees felled
11	Use of water	Source from where water is used for construction purposes

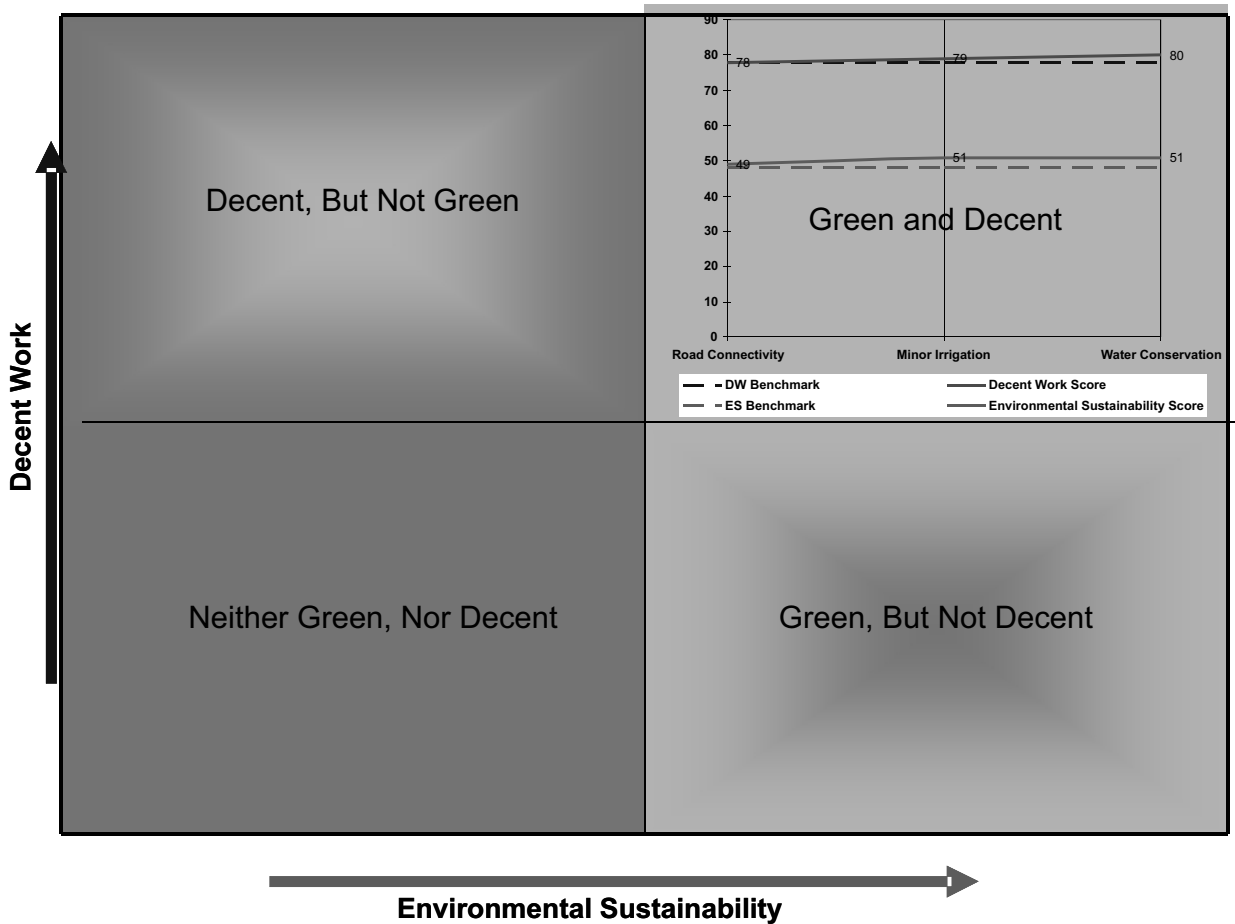


CONCLUSION AND WAY FORWARD



Conclusion

This study has attempted to review and measure the performance of the works conducted under MGNREGA in terms of decency of the jobs created and environmental sustainability. The matrix below clearly reveals that majority of the works identified in Kaimur lie within the domain of works that are green and decent.



Majority of the works have just crossed the benchmark value on the decent work parameters with insignificant variation across the nature of works undertaken under MGNREGA in the district, whereas in terms of environmental sustainability there is significant variation across the nature of works undertaken under MGNREGA. Rural connectivity related works score lower values in comparison with minor irrigation and water conservation works.

This study has demonstrated that the jobs created under MGNREGA in Kaimur district should be considered green jobs, as these jobs are decent jobs and contribute to environmental sustainability. The jobs created to improve rural connectivity under MGNREGA would also be considered green jobs, should they be decent, under the assumption that the labour intensive way of constructing roads is carbon friendly as opposed to other methods that make extensive use of machinery.

However, as the works just cross the benchmark score, there is enormous scope to ensure that the tasks undertaken under MGNREGA are more decent and green. The following suggestions are made in this regard:

- The planning processes need to be strengthened and consolidation of resources needs to be undertaken at Gram Panchayat, Block and District levels to favour holistic and integrated planning of the works. The study also advocates convergent action wherein diverse actors with specialised skill sets become involved in the process of planning, designing and implementation of MGNREGA works to maintain higher degree of environmental sustainability.
- MGNREGA workers need to be well protected through diverse kinds of government sponsored social security schemes (insurance, etc).
- Worksite facilities need to be improved. For instance, high degree of drudgery can be reduced by simple implements like a wheel barrow, sharp tools, etc. This also does not meddle with the provisions and spirit of the Act.
- Crèche facilities are not available in a majority of the locations. This is one of the important hindrances in the participation of women in MGNREGA work. The provision of crèches not only supports women's participation but also acts as a point of convergence of many education-related programmes apart from generating employment opportunities for the elderly and persons with disabilities.
- Majority of the demand side representatives are illiterate and belong to the lower strata of society. They are voiceless, with poor negotiation skills. It is strongly recommended that the demand side be organised to strengthen their participation in planning, execution and monitoring of MGNREGA works apart from also engaging in management of assets created under MGNREGA.
- With an increase in the portfolio of MGNREGA work, it is expected that the migrating population will find it more lucrative to work under MGNREGA than to migrate. It is understood that majority migrate out predominantly due to distress rather than by choice; thus MGNREGA worksites can also become important centres for organising formal and informal programmes on HIV/AIDS.

Next Steps

This assessment has brought forth several insights on MGNREGA from a decent work and environmental sustainability perspective. MGNREGA is one of the flagship initiatives of the governments and is slated to benefit millions of households. It thus has a strong potential for improving the carbon footprint of the economy.

The concept of green jobs can be adequately used to help monitor the decent work and environmental sustainability dimensions of flagship initiatives and would therefore benefit from a focused communication strategy. This calls for multi-stakeholder action involving the government, social partners, civil society organisations and international agencies like ILO. ILO being a promoter of the green jobs initiative needs to institute a study for designing a suitable communication strategy for the promotion of the green jobs concept and programme.

If similar assessments have to be undertaken for other major initiatives like IAY, TSC, etc, a user-friendly assessment toolkit would need to be developed and made available in the public domain. It would therefore be important to develop a standard green jobs assessment toolkit and manual for monitoring creation of green jobs in flagship initiatives that have a pan-national presence.

This study focused mainly on the implementation mechanism of MGNREGA works but environmental sustainability is also dependent on factors related to impact and use of assets being created under MGNREGA. Thus, the monitoring of MGNREGA works based on indicators of decent work and environmental sustainability would be critical as a knowledge product. This also creates scope for accessing

carbon credits and other climate- and environment-related financial schemes that will support magnification of resource allocation for MGNREGA. This also calls for making investments in the development and institutionalisation of appropriate monitoring and evaluation systems with robust MIS to support tracking of creation of green jobs under MGNREGA.

There are variations in the way MGNREGA is implemented in different parts of the country because of the high degree of flexibility that MGNREGA allows in the selection of works and the modus operandi of its implementation. One of the limitations of this study was its geographical scope and the limited coverage of existing agro-climatic situations, as well as the limited range of the types of works surveyed. It is therefore important to commission a study that makes comparative analogies regarding decency and environmental sustainability of works undertaken under MGNREGA in different parts of the country.

The current assessment had its own limitations in terms of its scope and resource availability. There are interesting observational and perceptual understandings of MGNREGA worksites from the OHS perspective. Worksite conditions can be substantially transformed to magnify social security cover and intensity. It will be useful and interesting to undertake OHS audits of the worksites and give recommendations for making the work under MGNREGA more decent.

This study has been instrumental in demonstrating the benefits of integrating decent work and environmental sustainability dimensions into MGNREGA guidelines for overall planning, implementation, monitoring and reporting. This would not only amplify the benefits that MGNREGA can provide citizens but would also help monitor, in a more systematic manner, the contribution that such large scale programmes can make towards maintaining the environmental capital in society in general and in rural areas in particular.



ANNEXURES



Annexure 1. Worksite checklist

How to Complete the Worksite Checklist

1. Your visit to the worksite should be *unannounced*, during work hours.
2. Start by observing the state of the worksite: what the labourers are doing, which facilities are available, what the mate is doing, whether any machines are being used, etc.
3. Count the labourers.
4. One team member should take the mate aside and keep him/her busy, so that the mate does not interfere with the group discussion with the labourers. Ask the mate for the muster rolls and other records (even if they are in kuccha form).
5. Conduct an informal group discussion with the labourers around the issues listed in the checklist (not necessarily in the same order). Introduce yourselves carefully before the discussion begins.
6. Make sure that women participate and get a chance to speak. If possible, hold separate discussions with men and women.
7. Make sure that persons with disabilities and the elderly (if observed) get a chance to speak.
8. Note any useful responses as you go along, on a draft copy of the checklist.
9. Towards the end of the discussion, take the opportunity to inform workers about their rights, help them to read the 'entitlements' page on the job card, distribute leaflets or primers, answer queries, and so on. If possible, use songs, slogans, etc, to enliven the discussion.
10. If any labourers have a serious complaint, take it in writing on the 'affidavit' form. Note all relevant details, and take the signatures or thumbprints of the concerned persons, as well as witnesses. Before asking anyone to sign an affidavit, please request a local person (not a team member) to read it out loud in the local language.
11. Inspect the worksite, including the worksite board and the worksite facilities. Also, try to assess the economic usefulness of the work, with the workers.
12. If needed, meet the panchayat sachiv or go to the panchayat bhawan to fill the 'worksite details' section at the end of the checklist.
13. After all this is over, sit together as a team and fill a fair copy of the checklist.
14. If you observe anything significant, make a note of it on a separate sheet of paper and incorporate and highlight that observation and finding in your narrative report.

MGNREGA Green Jobs Assessment Worksite Checklist

[Investigators: This questionnaire should be filled at the worksite, based on careful enquiries from the labourers (make sure to involve both women and men). Ask the labourers and not the mate, sarpanch, sachiv, contractor, etc. If some of them are present, one team member can take charge of distracting them by holding a separate discussion with them at a safe distance.]

Village: / _____ / Gram panchayat: / _____ / Block: / _____ /

Date: / _____ / Names of investigators: / _____ /

Name of work: / _____ /

Starting date of work: / _____ /

Muster rolls	
Was the muster roll available at the worksite when you arrived? [1 = Yes; 2 = No; 9 = Unclear]	/ ____ /
If yes, was the muster roll 'up to date' (including today's attendance)? [1 = Yes; 2 = No; 9 = Unclear]	/ ____ /
How many labourers were at the worksite today, according to the muster roll? (Enter number of labourers in the box. If you can't tell, write NA.)	/ ____ /
How many labourers were actually at the worksite when you arrived? (Enter number of labourers in the box. If you can't tell, write NA.)	/ ____ /
Did you notice any irregularities in the muster roll? (e.g. ,fake names, fake attendance details, signatures being taken before payments are made, muster roll complete in all respect) [1 = Yes; 2 = No; 9 = Unclear]	/ ____ /
If yes, please describe.	

Wage payments	
Have any wages been paid so far at this worksite? [1 = Yes; 2 = No; 9 = Unclear]	/ ____ /
<i>[Investigators: If no wages have been paid, skip this section.]</i>	
How many days have passed since the last wage payment at this worksite? (Enter number of days in the box, e.g., 30 days. If you can't tell, write NA.)	/ ____ /
[Investigators: The following questions apply to the last payment made at this worksite.]	
Last time wages were paid:	
Did it happen within 15 days of the work being done? [1 = Yes; 2 = No, but payment was made within a month; 3 = No, and payment was not even made within a month; 4 = Unclear]	/ ____ /
Did labourers get the minimum wage (Rs 102/day)? [1 = Everyone got the minimum wage; 2 = Only some labourers got the minimum wage; 3 = No one got the minimum wage; 9 = Unclear]	/ ____ /
Was the payment made through bank/PO accounts of the labourer? [1 = Yes; 2 = No; 9 = Unclear]	/ ____ /
Were job cards entries made in front of the labourers? [1 = Yes; 2 = No; 9 = Unclear]	/ ____ /
'Average wage': Try to find out how much the labourers earned on average (in rupees per day), the last time wages were paid. (If you are not able to tell, write NA.) Average earnings per day (Rs):	/ ____ /
At this worksite, what is the longest time labourers have had to wait for payment, after the end of a pakhwada (fortnight)? (Enter number of days in the box, e.g., 30 days. If you can't tell, write NA.)	/ ____ /
How many days have lapsed since work was measured? (Enter number of days in the box, e.g., 30 days. If you can't tell, write NA.)	/ ____ /
Worksite facilities	
Were the following facilities available at the worksite, at the time of your visit? [1 = yes; 2 = No; 9 = unclear]	
Shade for periods of rest	/ ____ /
Drinking water	/ ____ /
First aid kit	/ ____ /
Child care facility	/ ____ /
Any other facility that you noticed (narrate)	/ ____ /

<p>Narrate the quality of the above facilities at the worksite, e.g., is the shade large enough to accommodate everybody; first aid kit is complete; the pot/container in which drinking water is kept and is it taken out by a ladle, etc.</p>	
<p>Is there a board at the worksite? [1=yes; 2 = No; 9=unclear]</p>	<p>/____/</p>
<p>Does the worksite board provide the following information? [1=yes; 2 = No; 9=unclear]</p> <p>Total amount sanctioned</p> <p>Amount sanctioned for labour component</p> <p>Minimum wage</p> <p>Task required to earn minimum wage</p>	<p>/____/</p> <p>/____/</p> <p>/____/</p> <p>/____/</p> <p>/____/</p>
<p>Evidence of irregularities</p>	
<p>Did you find any evidence of the involvement of a contractor at the worksite? [1 = yes; 2 = no; 9=unclear]</p> <p>If yes, please describe.</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>/____/</p>
<p>Did you find any evidence of use (at any time) of labour-displacing machines at the worksite? [1 = yes; 2 = no; 9=unclear]</p> <p>If yes, please describe.</p> <p>_____</p> <p>_____</p>	<p>/____/</p>
<p>Did you notice any evidence of corruption of any kind at this worksite? [1 = yes; 2 = no; 9=unclear]</p> <p>If yes, please describe.</p> <p>_____</p> <p>_____</p>	<p>/____/</p>

<p>Did you notice that the work allotted to the elderly/persons with disabilities is not commensurate with their abilities? [1 = yes; 2 = no; 9=unclear]</p>	<p>/_____/</p>
<p>Other questions</p>	
<p>Did you notice any kind of drudgery in accomplishment of works? [1 = yes, 2 = No, 9 = unclear]</p> <p>Please narrate your reason for choosing 1, 2 or 9.</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>/_____/</p>
<p>If answer to above question is yes then answer these questions; if no, skip this section.</p> <p>Was it male or female workers who were facing drudgery in accomplishment of works? [1 = Male, 2 = Female, 3 = Both]</p> <p>Explain the nature of drudgery</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>/_____/</p>
<p>Do any of the labourers employed at this worksite live further than 5 km from the worksite? [1 = yes; 2 = no; 9 = unclear]</p> <p>Did you observe any person with disability or the elderly involved at the worksite? [1 = yes; 2 = no]</p> <p>If yes, narrate the nature of work they were performing</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>/_____/</p> <p>/_____/</p>
<p>Did you observe any group or association of labourers engaged in the work? [1 = yes; 2 = no]</p> <p>If yes, narrate the exact nature of group, e.g., CBO, SHG, labour's collective.</p>	<p>/_____/</p>

Appendix: Worksite Details

[Investigators: If needed, seek the information below from the mukhiya, PRS, PO or panchayat bhawan.]

Description of work: / _____ /

Implementing agency: / _____ /

Amount sanctioned: (1) Total: / _____ / (2) Labour component: / _____ /

Annexure 2.FGD with workers-checklist

Guiding Questions

Employment related

- o What is the daily wage rate under MGNREGA?
- o How much do you realise?
- o After how many days did you realise your wages?
- o Do you hold a bank/post office account?
- o Were the wages paid through your bank/post office account?
- o How many days of employment did you receive during the last year?
- o How many days of employment did you receive this year? So far

Social protection related

- o Are you aware of insurance provisions under MGNREGA?
- o Are you insured? (Even if the person says yes, his job card needs to be verified if the policy number and other insurance details are mentioned at appropriate place.)
- o Have you heard of any incidence of injury or death while at work under MGNREGA? If yes, elaborate the nature and number of such incidences.
- o If yes, can you recall if necessary health care services were provided or not?
- o Have you heard of anyone who has availed of insurance benefits?
- o What are the facilities available at the workplace? Record the response in detail.
- o Do you think any simple tools or protection equipment (like masks) should be provided? If yes, record the kind of tools and why it is important.

Social dialogue related

- o Has there been any episode of any community institution taking up responsibility of implementing MGNREGA works? If yes, ask for elaboration which one, where, what was the experience, etc.
- o Do you feel the need for a workers' collective if yes, formal or informal?
- o If yes, who should be the members and who should not?
- o If yes, what should this collective work for? Elaborate and report.
- o Do you think workers' collective can mitigate operational discrepancies? If yes, how?
- o Do you participate in Gram Sabha meetings? If no, why?
- o Were you part of the planning process for selection of works under MGNREGA?
- o Is there any grievance redressal system?
- o Whom do you contact in case of any grievances? Where do you go next in case the first party is unable to address or mitigate your grievances?
- o Are you aware of any grievances being lodged? If yes, did it get mitigated? Record the nature of grievance and solution offered and the time lag. Look for the grievance register at the panchayat.
- o Have you been trained in OHS and HIV/AIDS?
- o If yes, when and by whom?
- o Have there been any social audits performed? If yes, by whom and when and how frequently?

- o Is there any nigrani samiti (monitoring committee) supervising your work? If yes, are any of you members of the samiti? Who are the members?

Rights related

- o Are children (non-adults) allowed to work under MGNREGA?
- o How many hours do you work every day for realisation of minimum wages?
- o Do you decide the work timing according to seasonal conditions? If no, then who decides the work timings?
- o Should women work under MGNREGA? If no, why?
- o Should persons with disabilities and the elderly work under MGNREGA? If no, why? Do you advocate for their engagement in MGNREGA works?
- o What should be the nature of works allotted to them?

Environment related

- o Do you think the works undertaken under MGNREGA are environmentally friendly? If yes, why and if no, why?
- o From where is the earth excavated for construction of roads under MGNREGA?
- o What is done with the silt collected while deepening of a pond under MGNREGA?
- o Are the species being planted under afforestation and social forestry drives appropriate to the agro-climatic conditions of the region?

Annexure 3. Checklist of questions for block level officials

1. This checklist of questions is for the government officials at the block level.
2. The questions will be administered to the representatives of the MGNREGA implementation team, and block level representatives of the forest, water resources, agriculture, horticulture, fisheries and animal husbandry departments.
3. The aim of this instrument is to elicit information from the departments on their assessment of the present level of green jobs in the manner in which the works are implemented, the schemes and programmes of the respective department which have the potential of introducing/deepening the green aspects of works under MGNREGA, and the possibility and potential of converging such schemes/programmes with MGNREGA.
4. This instrument is not a questionnaire. It is a checklist of questions that will have to be adapted for each of the departments that are being contacted at the block level.
5. Before asking the questions it will be necessary to make the block official comfortable. The objective of the study and the reason for asking questions from the representative should be clearly stated. It needs to be pointed out that the answers given by him/her will in no way reflect on the performance of the department nor will the report use them to comment on the department's capacity to deliver services.

1 Information related to MGNREGA

- 1.1 Which of the following works and types of assets have been created under MGNREGA in the block
 - (a) Rural connectivity
 - (b) Drought proofing
 - (c) Afforestation
 - (d) Irrigation
 - (e) Water conservation
 - (f) Flood control and protection
 - (g) Others
- 1.2 How do you assess the potential of these works and assets in terms of their ability to:
 - (a) Strengthen natural resource base
 - (b) Efficient use of energy
 - (c) Reduce emission of GHG
 - (d) Use of renewable energy

Specific examples and reasons should be stated while making this assessment.

- 1.3 What is the procedure for procurement of materials under MGNREGA:
 - (a) Types of materials procured
 - (b) Centralised/decentralised procurement
 - (c) Parameters for identifying the supplier (cost, quality, etc)

Are there considerations of procuring materials from the supplier who uses environment friendly

processes of production (renewable energy, low fuel consumption technology, etc)?

2 Information related to department's schemes and programmes

2.1 Generate a list of the schemes and programmes of the department that are being implemented in the block.

2.2 Take each of the programmes and schemes and ask the representative to assess these programmes in terms of their ability to:

- (a) Strengthen natural resource base
- (b) Efficient use of energy
- (c) Reduction of emission of GHGs
- (d) Use of renewable energy

2.3 What are the procurement procedures for materials and supplies under the programmes and schemes with respect to:

- (a) Types of materials procured
- (b) Centralised/decentralised procurement
- (c) Parameters for identifying the supplier (cost, quality, etc)

Are there considerations of procuring materials from the supplier who uses environment friendly processes of production (renewable energy, low fuel consumption technology, etc)?

3 Convergence with MGNREGA

3.1 What are the possibilities of converging the department's programmes with MGNREGA:

- (a) Planning for works in terms of choice and location of works
- (b) Supplementing/complementing in works and creation of assets
- (c) Sharing of resources
- (d) Value addition by sharing use of assets created

3.2 If there are possibilities for convergence, what would be the appropriate process which would promote and strengthen such convergence?

Annexure 4: Checklist of questions for district level officials

1. This checklist of questions is for government officials at the district level.
2. The questions will be administered to the representatives of the MGNREGA implementation team, and district level representatives of the forest, water resources, agriculture, horticulture, fisheries and animal husbandry departments.
3. The aim of this instrument is to elicit information from the departments on their assessment of the present level of green jobs in the manner in which the works are implemented, the schemes and programmes of the respective department which have the potential of introducing/deepening the green aspects of works under MGNREGA, and the possibility and potential of converging such schemes/programmes with MGNREGA.
4. This instrument is not a questionnaire. It is a checklist of questions that will have to be adapted for each of the departments that are being contacted at the district level.
5. Before asking the questions, it will be necessary to make the district official comfortable. The objective of the study and the reason for asking questions from the representative should be clearly stated. It needs to be pointed out that the answers given by him/her will in no way reflect on the performance of the department nor will the report use them to comment on the department's capacity to deliver services.

1. State of environment in the district

- 1.1 What are the major environmental concerns in the district? (prompt for water, land, forest)
- 1.2 How do these environment factors affect the livelihood of people in the district? (degradation of land, lack of water, decrease in fuel supply, etc)
- 1.3 How does your department seek to mitigate environmental factors? (ask specifically, mitigation through regeneration, through conservation and through adaptation) Are there specific annual or five year plans for these strategies? If yes, what is the budget? (if possible secure a copy of these plans)
- 1.4 Are the environmental concerns of the district addressed in any way under the MGNREGA works and assets in the district? If yes, give specific examples.

2. Information related to MGNREGA

- 1.1 Which of the following works and the types of assets have been created under MGNREGA in the block
 - (a) Rural connectivity
 - (b) Drought proofing
 - (c) Afforestation
 - (d) Irrigation
 - (e) Water conservation
 - (f) Flood control and protection
 - (g) Others
- 1.2 How do you assess the potential of these works and assets in terms of their ability to:

- (a) Strengthen natural resource base
- (b) Efficient use of energy
- (c) Reduced emissions of Green House Gas
- (d) Use of renewable energy

Specific examples and reasons should be stated while making this assessment.

1.3 What is the procedure for procurement of materials under MGNREGA:

- (a) Types of materials procured
- (b) Centralised/decentralised procurement
- (c) Parameters for identifying the supplier (cost, quality, etc)

Are there considerations of procuring materials from the supplier who uses environment friendly processes of production (renewable energy, low fuel consumption technology, etc)?

3. Information related to department's schemes and programmes

3.1 Generate a list of the schemes and programmes of the department that are being implemented in the block.

3.2 Take each of the programmes and schemes and ask the representative to assess these programmes in terms of their ability to:

- (a) Strengthen natural resource base
- (b) Efficient use of energy
- (c) Reduced emissions of GHG
- (d) Use of renewable energy

3.3 What are the procurement procedures for materials and supplies under the programmes and schemes with respect to:

- (a) Types of materials procured
- (b) Centralised/decentralised procurement
- (c) Parameters for identifying the supplier (cost, quality, etc)

Are there considerations of procuring materials from the supplier who uses environment friendly processes of production (renewable energy, low fuel consumption technology, etc)?

4. Convergence with MGNREGA

4.1 What are the possibilities of converging the department's programmes with MGNREGA:

- (a) Planning for works in terms of choice and location of works
- (b) Supplementing/complementing in works and creation of assets
- (c) Sharing of resources
- (d) Value additions by sharing use of assets created

4.2 If there are possibilities for convergence, what would be the appropriate process which would promote and strengthen such convergence?

Annexure 5: Technical note on scoring and weights

The methodology adopted for scoring comprised five steps:

(a) Development and finalisation of indicators

The indicators for decent work and environmental friendliness were finalised in the context of MGNREGA. The process of finalisation involved peer group consultations, especially with personnel involved in implementation of the scheme.

(b) Generating options for each indicator

Three possible options for each indicator were developed. The first option reflected the minimal state of achievement of the indicator and the third option reflected the ideal state. Consequently, option one was assigned a score of 1, option two a score of 2 and option three a score of 3. Higher scores implied higher levels of achievement for the indicator. For example, for the indicator Timely Payment in the case of decent work, option one was wages received after 15 days of work done, option two was wages received within 7 to 15 days of the work done and option three was wages received within one week of the work done. These options were developed with reference to the operational guidelines of MGNREGA that stipulate that as far as possible the wages should be paid within seven days and in no case after 15 days of the work done. Consequently, option three was given a score of 3 and option one a score of 1.

(c) Assessing indicator

Indicator assessment was undertaken by the researchers based on their field observations, FGDs and interface with members of the implementing agency. Secondary data was also analysed for assessment of the indicator. The assessment resulted in the choice of option for each particular indicator.

(d) Assigning weights

The study recognised that given the nature of MGNREGA all the indicators are not of equal importance. For example, the main purpose of the scheme is to guarantee employment for 100 days for unskilled work. Hence indicators that relate to employment were given greater importance than other indicators by assigning a weight of 4 to each indicator related to employment and a weight of 2 to each of the other indicators. Similarly, in case of environmentally friendly indicators, the protection of ecosystems and development of ecosystem services was given greater importance by assigning a weight of 5, a weight of 2 to energy efficiency and a weight of 1 each to the remaining indicators.

(e) Weighted scores

The weights assigned to each of the indicators were added to the score achieved by that particular indicator to arrive at the weighted score. Table 8 containing the basic scores has been elaborated here to demonstrate how the weighted score was arrived at for the decent work indicators.

Decent work indicators and scores obtained for three major types of works and detailed calculation for arriving at weighted score

S. No. Indicator	Percentage weight	Type of work (score)								
		Rural connectivity		Minor irrigation		Water conservation				
		Acquired score	Calculation for arriving at weighted score	Weighted score	Acquired score	Calculation for arriving at weighted score	Weighted score	Acquired score	Calculation for arriving at weighted score	Weighted score
1	40%	12			32	12			32	12 32
1.1	Days of employment realised against demand for employment	3	3+4	7	32	3	3+4	7	3	3+47
1.2	Place of work	3	3+4	7	3	3+4	7	3	3+4	7
1.3	Nature of work	1	1+4	5	1	1+4	5	1	1+4	5
1.4	Realisation of minimum wages	3	3+4	7	3	3+4	7	3	3+4	7
1.5	Timely payment of wages	2	2+4	6	2	2+4	6	2	2+4	6
2	Social protection	4		10	4		10	4		10
2.1	Insurance coverage ratio	1	1+2	3	1	1+2	3	1	1+2	3
2.2	Provision for rest and related facilities at worksite	2	2+2	4	2	2+2	4	2	2+2	4
2.3	Child care facility	1	1+2	3	1	1+2	3	1	1+2	3
3	Social dialogue	3		9	3		9	3		9

3.1	Presence of labour groups	1	1+2	3	1	1+2	3	1	1+2	3
3.2	Participation in planning	1	1+2	3	1	1+2	3	1	1+2	3
3.3	Awareness programme on HIV/AIDS	1	1+2	3	1	1+2	3	1	1+2	3
4	Rights	15		27	16		28	17		29
4.1	Incidence of child labour	3	3+2	5	3	3+2	5	3	3+2	5
4.2	Hours of work and its seasonal distribution	2	2+2	4	2	2+2	4	2	2+2	4
4.3	Incidence of discrimination	1	1+2	3	2	2+2	4	3	3+2	5
4.4	Employment to SCs	3	3+2	5	3	3+2	5	3	3+2	5
4.5	Employment to STs	3	3+2	5	3	3+2	5	3	3+2	5
4.6	Employment to women	3	3+2	5	3	3+2	5	3	3+2	5
	TOTAL	34		78	35		79	36		80

