



A Case Study

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Afforestation bustle through MGNREGA: A pace towards the sustainable approach

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ABSTRACT : India is one of the most populous countries having only 19.5 per cent forest cover which needs to be improved up to 33 per cent for ensuring environmental stability. Rejuvenation, conservation and maintenance of the natural resources are the prior essentialities of coming India. To overcome such emerging issues, Ministry of Environment and Forests adapted a Mahatma Gandhi National Rural Employment Guaranty Scheme (MREGS) since, 2005. Gradually this programme enhances livelihood security of rural poor by creating durable assets. This article tries to over view plantation activities and its impact on rural livelihood. In accordance with the prior recommendations of NREGA (National Rural Employment Guarantee Act), afforestation and various tree plantation activities were amended into schedule-I. It would become helpful to generate awareness towards greening India campaign. Also, strengthens the long term challenges regarding eco-restoration and regeneration of natural resources.

KEY WORDS : Conservation, Environment, Forest, Regeneration

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INTRODUCTION

India accredited with a 2nd place for most populous country with 1.2 billion people and 7th place for its geographical contribution among the world (Ministry of Home Affairs, 2011). It suspects 3166414 km² of geographic area but out of that forest covers merely on the 692027 km², which contributes 19.5 per cent only (Press Information Bureau, 2013). However, National Forest Policy, 1988 has announced that the 1/3rd (33 %) of total

geographical area should be maintained under forest cover in the direction of ensuring environmental stability. This natural resource is incredibly essential for round development of our country but gets deteriorated rapidly. Their rejuvenation, conservation and maintenance are the essentialities for the sustenance of healthy and vigorous life. With this prospective, Ministry of Environment and Forest (MoEF) adapted a Mahatma Gandhi National Rural Employment Guaranty Scheme since, 2005.

Basic strategy of MREGS :

Mahatma Gandhi National Rural Employment Guaranty Scheme (MREGS) which is a flagship programme of Government of India. Basic strategy of this programme is the enhancement of livelihood security of rural poor by providing at least 100 days of assured wage employment to create durable assets (MGNREGA Briefing Book, 2013).

Afforestation constrain through MGNREGA :

Majority of rural people were employed in the agriculture,

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forestry and fishing related activities on the behalf of its effective implementation. The various work categories were incorporated in the drought proofing category along with water conservation measures and land development aspects. It prefers the afforestation and tree plantation activities by exploiting the wage employment to the localities. However, prior to recommendations of NREGA^(a) (National Rural Employment Guarantee Act, 2005) these works were amended into schedule-I (MGNREGA field work manual, 2013). Day by day, afforestation activities carried out through MGNREGA become popular owing to their dual benefits. Thus, the attempt has been made to overview the afforestation activity of NREGA and its impact on rural livelihood.

As per the guidelines mentioned in MGNREGA, following works were allowed in drought proofing category.

- Eco-restoration of forests, Reforestation and Tree plantation- Ecorestoration of forest, road/rail, canal plantation, block plantation and avenue plantation.
- Afforestation- To cover degraded forest and barren land under afforestation.
- Grass land development and Silviculture.
- Watershed development works on watershed approach.

Although MoRD (Ministry of Rural Development) piloting the convergence of NAP (National Afforestation Programme) in the 18 states. Several proposed activities like soil and moisture conservation measures fodder and pasture development, in-situ conservation of medicinal plants, rising coastal and shelter belts and promotion of agroforestry and sericulture were also allowed (Central Employment Guarantee Council, 2010).

Hence, planning could be undertaken on the forest land as well as on private sector. The theme of enrollment would be participated by four line departments namely RDD (Rural Development Department), State Agriculture Department, State Forest Department and Social forestry wing, respectively.

Flash back on the afforestation and plantation aspects through MGNREGA :

'Green Ambaji' project in the 'Banaskantha' of Gujarat covers a 60 ha of land under the green coverage. Mainly the women candidates of MREGS from the BPL (Below Poverty Line) families showed leading impart in the form of change makers. 8917 mandays generated till the date and stresses particular emphasis on solid and liquid waste management. Similarly, another project of NREGA integrated with JFMC (Joint Forest Management Committee) build ups a nursery of multipurpose tree species at 'Navaras' of Banaskantha stabilizes the community assets at the village level. This plantation activity was intended to cover almost 200 ha of land under forest cover (Convergence with MGNREGA, 2014). This 'Green Ambaji' project not only employs the BPL families but also improves the forest cover. JFMC stabilizes a good will of

localities through Nursery establishment.

Social afforestation programme was under taken by the State Forest Department of 'Bihar' showed extreme success by the participation of six districts (Gupta, 2009). It would become helpful to recover the wastelands as well as employment to rural landless through the active participation of villagers.

MGNREGA offers liquid cash to remote area of Andaman and Nicobar by selling the produce which helps to sustain a smooth livelihood. With co-operation of forest department, North and middle Andaman covers a 60 and 90 ha of land under horticulture and grazing purpose, MFPs (Minor Forest Products), respectively. MGNREGA supports a development of pastures, mixed plantations, cane production, bamboo cultivation and Jinda Bulley means bunding and plantation of shrubs on field boundaries (Convergence success stories, 2014). All these activities offer a boon for the inhabitants particularly in the remote and inaccessible areas. Along with the employment NREGA activities tenders the livestock security. Boundary plantations support a rejuvenation of soil moisture and future investment of eco-restoration.

Botanical garden enriched with 800 endemic species of plants was set up in the remote interior area of 'Digboi' of Assam. Resources were pooled from MGNREGA and maintained by State Forest Department. It generates 12655 mandays^(b) for local villagers (Convergence with MGNREGA, 2014). This spectacular programme conserves a rare and endangered plant species which are on the way of deterioration. It might serve as excellence for research prospective.

'Sonathali' village of Purulia district (West Bengal) fosters soil conservation and improves fertility. Eucalyptus and Acacia seedlings rose through NREGA under the super vision of forest department (Kumar *et al.*, 2008). It favors the renovation of degraded land, reduces the soil erosion and manages green assets through the plantation of hardy tree species.

Active participation of the farmers was observed in the MGNREGA convergence with sericulture department of 'Ramnagar' district of Karnataka. It offers a 1460 mandays throughout the year and recurring up to 15 years (Convergence with MGNREGA, 2014). In addition to dual employment security it would provide raw material for silk industry. Moreover, additional employment oppornities would be generated on the basis of silk worm rearing.

In the lean season of agriculture, villagers of '24 paraganas' (West Bengal) were successfully restored the mangroves of Sundarban delta. The endeavor was made by MGNREGA in collaboration with forest department to eliminate ill effects of cyclone Aila, 2009. This campaign not only generates the 3.5 lacks person days^(b) but also 2485 ha of land was incorporated by pneumatophores (Convergence success stories, 2014). As Sundarban is world's richest heritage site, such efforts restores the mangroves of Sundarbans to sustain its glory. This MGNREGA convergence with forest department

traces optimization of public resources to build up the sustainable livelihood. The special emphasis was made on the plantation as well as for the conservation of Mangroves.

A case study carried out at the 'Chitragurga' district (Karnataka) for tree planting activity of NREGA. Three villages (Pagadalabande, Budnahatti and Pagadalabande) were selected for the estimation of environmental benefits obtained from Karanj (*Pongamia pinnata*) seedlings on the field bunds and wastelands. Though, this young plantation accumulates 3t/ha/yr carbon sequestration and projects 93tC/ha after 30 years. Consequently, prestigious biodiesel and green manure production potential was recorded with higher estimates (Indian institute of Science, 2009). Non affordable outcomes were obtained from this project. Valid option of biodiesel has been opened for ever increasing demand of fuel. Sequestration of atmospheric carbon helps to enhance environmental stability.

100 crore tree plantation campaign :

State Government of Maharashtra has decided to improve the present status of forest cover (16.46 %) up to 33 per cent with respect to total geographic (307713 km²) area (Press

Information Bureau, 2013). In accordance with this appraisal, Revenue and Forest Division adopted a 100 Crore Tree Plantation Campaign (CR No. MDM-2011/NO. 104/F-2 Dated 25th Oct, 2011). Previously this programme was set up for two consecutive years *i.e.* from 2011-2012. For their effective implementation, 50 per cent of the raised seedlings were planted in the rainy season of the year 2011. Remaining seedlings were utilized for the next planting period of 2012. Principle Chief Conservator of Forests and Principle Secretary of Social Forestry wing, Thane afford their guidance as a nodal officer. Their evaluation criterion was adopted according to 'Muzzapurpur Bihar Model'. Nursery well equipped with local suitable multipurpose tree species would be raised under the guidance of line departments. These nurseries were awarded as 'Babasaheb Ambedkar Ropvatika' (Fig. 1 and 2). The plantation bustle is carried on road side avenues (Fig. 4), wastelands (Fig. 3), community panchayat lands, fallow individual land and on field boundaries of agriculture farms. By reviewing the last year success this campaign is continuously implemented in the next succeeding years.



Fig. 1: Babasaheb Ambedkar Ropvatika, Nursery Establishment, 2011 for 100 Crore Tree Plantation, Village-Tandulja, Dist. Latur, Maharashtra



Fig. 3: Afforestation, 2012 activity carried out by Social Forestry Department on the Wasteland commonly called as Varkas Jamin in Village- Jevari, Latur- Maharashtra



Fig. 2: Nursery developed by Social Forest Department, Latur for 100 Crore Tree Plantation at Renapur- Latur, Maharashtra



Fig. 4: Avenue Plantation (2 km), 2013 on the Gangapur-Bhopala Road, Latur- Maharashtra

Conclusion :

Afforestation activity of MGNREGA formulates a 'silver bullet' for strengthening efforts towards the greening India. There is no such issue that, any campaign related to plantation and land restoration exerts a negative impact. Thus, it results in non - affordable returns. Along with the primary objective of employment generation eco-restoration and regeneration of natural resources should be possible through such activities. Therefore, more prominence should be concentrated on its effective implementation. There should be a compulsory substantial for drought proofing works before giving technical assistance to personal beneficiary works through MGNREGA. Their execution should be compensated at a significant scale. Awareness regarding the valuable benefits should be generated from grass root level to the top of humanity. No doubt that, it would provide an assure platform to reduce the optimistic view of increasing forest attribute from 19.5 per cent to 33 per cent during few years.

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(Note: NREGA^(a): National Rural Employment Guarantee Act notified on 7th Sept, 2005. It is an Indian Law aims to provide a guaranteed 100 days wage for the livelihood security of rural peoples. Later on, it renamed as Mahatma Gandhi NREGA from 2nd Oct, 2008.

Person days/Mandays^(b): Employment provided as a proportion of demand for the work as per the labour budget.)


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