INNOVATIVE IDEAS AND THE ASSESSMENT OF THEIR APPLICABILITY FOR DEVELOPMENTAL PROJECTS UNDER MGNREGS

Er. Vinay Gupta,
Assistant Engineer,
MGNREGA State cell,
Indrawati Bhawan, Naya Raipur (CG)

ABSTRACT

In this paper, innovative ideas for increasing the efficacy of flagship scheme MGNREGS of GoI, MoRD has been presented. Special attention has been given to address the problems of lack of livelihood opportunities in the rural population, environmental degradation, lack of use of potential of information technology (IT) and lack of attention towards the works related to integrated natural resource management (INRM) and water conservation. Efforts have been made to resolve these problems through taking up several kinds of works listed in the categories of allowed works in the para 4 of the schedule 1 of MGNREGA. Here, emphasis has been given to the development of innovative ideas to counter the common hurdles of mentioned fields of diverse application. It is envisaged that through the application of these "out of box thinking", the scheme would get the desired dynamic current to revitalise the forces encouraging financial inclusion, quality of assets and environmental protection in the rural scenario. This would ensure the inclusive growth of poor masses. The applicability of five numbers of diverse ideas has also been assessed through reasoning and logical coherent ideas. The possible solutions to the probable negative aspects have also been suggested.

Key words:-

Rural Development, Financial Inclusion, Livelihood, LIFE, NRLM, Virtual Computer games, Grazing ground, Borrow pits and agricultural.

Introduction:-

Rural development projects which ensure the inclusive growth of the rural population are the need of the hour. Amongst several schemes of Government of India and the state governments, MGNREGS is the most versatile, convergence friendly, livelihood supportive and assets creating scheme. It is the flagship scheme affecting the way of life of the rural population. Thus, it becomes imperative to utilize the potential of this scheme to its fullest. For this, an exercise to assess the current developmental needs of the rural people and the viable solutions to fill up the gaps is needed. The innovative ideas are urgently needed in the present scenario which consist of result oriented over expectations of all the stakeholders of MGNREGS. With decades of learning's and observational experiences in engineering, social sciences and economics, variety of innovative ideas have been developed for ensuring the inclusive growth in rural India. These ideas would certainly strengthen Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and revitalize the rural economy as well.

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Testing of hypothesis: Testing of hypothesis is very important before the adoption of ideas at state and national levels. Policy formulation may be the final outcome of research. In this paper, the innovative ideas and suggestions have been presented in such a way that separate pilot projects may be easily taken up based on the point wise categorized detailed explanations. Suitable modifications may be adopted as per the agro-climatic and socio-economic conditions. It is suggested that changes in the identified scientific and social parameters may be observed and recorded as per statistical research protocols in spatial and temporal frameworks.

Objectives:-

The objectives of this innovative paper are in tune with the objectives of MGNREGS and support the philosophy of establishment of welfare State. The prime objectives of this analytical study are as follows:

1. To ensure year long livelihood through innovative protection works such as compound walls.
2. Environmental protection, value addition and financial inclusion.
3. Quality assurance through pedagogical innovation comprising virtual construction video modeling.
4. To increase the availability of land for agricultural purposes through taking up works in barren lands.
5. To reveal the water conservation potential of rural roads construction.
6. To explore the ideas supporting inclusive growth in rural sector.
7. Financial inclusion through productive assets under MGNREGS.
8. To motivate and trigger the stakeholders of MGNREGS to perform lateral thinking to enhance the scope of utilisation of MGNREGA.

Methodology:-

Innovation as a subject is studied in the branch of psychology. The ideas are generated randomly as well as through systematic analysis of the problem in focus. Ideas are the brainchild of experience, exposure and brainstorming. The guided lateral thinking may produce marvelous viable innovative ideas which are as good as the spontaneous bright ideas. For this, demonstration act of generation of innovative practically viable ideas, the topics have been randomly selected from the objectives mentioned in MGNREGA. Livelihood, NRM, quality of assets, development of grazing grounds and water conservation works/ aspects of the scheme have been selected for innovative idea generation. The ideas have been developed through coherent thinking addressing the specific problems. In this paper, total five numbers of broader problems are being addressed to. Instead of studying the statistics of problems, emphasis has been given to logical and visionary thinking. The applicability of innovative ideas in the real life situations has been considered an important dimension in this study. The scope of further studies and possible solutions to the failure of the themes has also been presented in this research paper of its own kind.

The 5 innovative ideas have been presented in different headings and sub headings as follows:

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1.An innovative idea regarding "Linking of Permanent Assets' Creation with programme LIFE under MGNREGA-NRLM convergence."

1.1 Instant explanation of the idea proposed: This is an innovative idea to use the school boundary walls for livelihood activities.

1.2 Background of the Proposed Theme: Several skill development programmes of GoI and State Governments are contributing to creation of skilled workforce under several traits such as carpentry, electrician, plumbing etc. in rural areas. Livelihood in Full Employment (LIFE) programme under MGNREGS-National Rural Livelihood Mission (NRLM) convergence is also yielding trained and skilled workforce in rural areas to enable them to carry out their livelihood activities throughout the year. This capacity building endeavour for supporting full employment activities needs forward linkages to fulfill its goals.

1.3 Existing problem: Permanent assets such as shops cum workstations for the trained manpower in their own villages are the need of the hour, but lack of such inevitable infrastructures in the present scenario is hampering the motives of skill development programmes.

1.4 Broader Solution: The migration of skilled manpower from the villages may be prevented through ensuring self employment opportunities for them in the villages themselves.

The Annual Master Circular under MGNREGS- 2017-18 has notified the construction of boundary walls of government run schools as an allowed activity under the scheme for the first time. Construction of working shed for pursuing livelihood activities of SHGs is also an allowed activity under the act. It has been conspicuously observed from the civil engineering point of view that strict technical specifications have to be met in order to prevent cracking and overturning of compound walls due to multitudes of site specific technical reasons.

1.5 The exact solution- an innovative idea: The bother less best solution lies in the construction of beam column based good quality boundary walls. A well designed boundary wall made up of RCC columns footings (at suitable longitudinal spacing such as 10 feet) with plinth beams in between the columns is able to resist differential settlements and overturning. Although it is costlier and material intensive, it is durable and sturdy. And the best part of the proposed theme is that even a boundary wall kind of asset constructed under MGNREGS may provide the livelihood to skilled workers throughout the year as an innovative outcome. It is apart from performing its usual purpose of protection of the school campus.

A beam column structure of compound wall in front of school premises may be used for the construction of series of elegant tin sheds of sizes 10× 10 feets with boundary wall working as back wall of the shop cum work station structure. For example, a school boundary of 100 feet length on roadside front would yield 10 numbers of shops cum working stations 10 feet wide and 10 feet deep. The walls may be constructed by locally

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available building materials or by bricks such as Compressed Stabilised Earthen Blocks (CSEBs) produced by the MGNREGS job card holders promoting use of "appropriate technology". This will provide wage employment opportunities for the production of construction materials as well. The working stations for SHGs come under the allowed activities in the act. These work stations may be allotted to the suitable beneficiaries desirous of pursuing the production/ sell of items of their choices such as furniture, village handicrafts etc. They may also be allotted to the beneficiary skilled workers who would be willing to perform the services/ professions such as cobbler, electrician, blacksmith, plumber, bicycle/ motorcycle repair, forest produce based cottage industries run by SHGs etc. These shops will not only provide avenue for the livelihood of poor skilled villagers but will also provide monthly earnings to the schools as rent. The students of the schools will also learn several livelihood traits consciously and subconsciously while passing by them year round. These shops will also prevent the migration of skilled workers from the villages since such shops cum working stations provide manufacturing as well as sell of the products of their choices. The traders from cities would rather visit to the villages in order to collect the produce of village tiny industries set up in these shops cum workstations. Once taken up in mass scale, several models of construction and bussiness running models would get evolved automatically based on the local needs and aspirations. The villages would become self reliant through this innovative approach of interlinking creation of an asset to the livelihood at the level of village.

Thus, the idea on convergence of LIFE and assets' creation under MGNREGA has been developed for assessing the feasibility on pilot basis at randomly as well as at consciously selected places. The effect on improvement of economic conditions of the beneficiaries in pilot gram panchayats may be scientifically studied with respect to the suitable control samples.

1.6 Possible problems and their solutions: The possible issues of quality may be addressed through proper supervision of well designed structures. The selection of beneficiaries should be based on the principles of impartiality and transparency based on the pre decided parameters.

2. Assessment, enhancement and study of Applicability of "Panchvati Concept" of plantation

2.1 Instant explanation of the idea proposed: Adoption of "Panchvati Concept" based block plantation near the water filled ponds constructed under MGNREGA since 2005 through plantation of 5 specific species of plants along with development of supportive livelihood activities.

2.2 Background of the idea: The activities of plantation and the construction of farm ponds/ community ponds come under the category of allowed works under MGNREGS. These have been taken up separately. Due attention is needed for converging these separate allowed works under the act.

2.3 The Problem: As standalone activity, survival of plantation has always been an issue of concern due to high mortality rates of plantation.

2.4 Broader Solution: As an activity of value addition to the already created water body assets under the scheme, as an innovative idea, it is proposed to develop plantation on the concept of "panchvati" . The convergence of permissible works such as plantation, construction of farm ponds and construction of a working shed at one place would support and enhance the utility of each work.

2.5 Specific innovative idea: Under this idea of "panchvati", 5 compulsory species of plants viz., Banyan, Peepal, Fig, Bilva and Amla would be planted and a central "parnakuti" (i.e. small hut/ working station of locally available materials for the caretaker of the block plantation) would be prepared. The rest 195 number of plants would be as per the choice of the selected beneficiary under the act. The hut would act as processing centre for the produce of plantation in future. The existence of forward linkage preplanned livelihood supporting infrastructures would boost the morale of beneficiary to ensure hundred percent survival of plantation. It may be noted that under MGNREGS, a beneficiary may be given total 200 numbers of plants of his/ her choice to take care and the payment is linked to the percentage of survival. This idea would ensure proper watering and care of the block plantation along with ensuring the availability of fruits to the beneficiary in long run.

2.6. Other fringe benefits of the idea: Healthy ambience air quality and positive vibrations in the area due to the development of natural kind of ecosystem attracting a variety of flora and fauna will also occur. Development of herbal parks, production of honey through raring of bees may also be started in such oxyzones. This will broaden the livelihood base of the beneficiaries concerned. The survival of plants in block plantation will also increase through such endeavors. Eco tourism may also be developed through such orchards, thus boosting the overall rural economy. This kind of innovative plantation work along ponds may be taken up on pilot basis at suitable agro climatic zones.

2.7 Possible problems and their solutions: The selection of plant varieties may be faulty, thereby causing failure of plantation. To check this menace, balance must be striked upon the beneficiary's choice of plant species and the most suitable plant variety based on technicalities such as agro climatic zones etc.

3.Innovative idea on Virtual Construction Video Modelling:

3.1 The background of the idea: During the execution of works in the field and also during imparting the District Technical Resource Team/ Barefoot Technician (DTRT/BFT) trainings, I used to come across several kinds of problems in conveying the technical specifications to the subordinates and trainees exactly. In order to drive the exact technical instructions into the minds of trainees, dozens of pedagogical innovations were applied in the BFT trainings. These included very low cost physical models of the structures.

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3.2 The solution/ innovative idea: In view of the above mentioned background, an innovative idea is to create "virtual video models of the structures" constructed under MGNREGA. This will save laces of rupees of labour and material expenditure which are wasted every year during construction activities on account of rectification, corrections and dismantling of wrongly constructed structures and their parts.

3.3 Development of idea: To resolve such problems, a video game kind of programming may be done for the training of correct technical steps in various structures. Let us take an example of Anganwadi construction. For this, the starting step of site selection with few pictorial options of proper and improper sites will be shown on the screen on the start of the game, the trainee has to select the best options. On the basis of selected options, marks would be awarded to the trainee on every step as happens in video games. Thus, the trainee would learn the technicalities of construction in step by step manner virtually. He/ she would also learn the rectification options in the cases of carrying out wrong steps.

3.4 The benefits envisaged through such innovative idea: The light, sound and 3D visual effects would make the learning easier, cost effective, practical and permanent. Thus, "virtual construction games (VCG)" would prove to have far reaching positive consequences in the improvement of quality of assets under MGNREGA along with revolutionizing the training techniques. To start with, this idea may be incorporated in development of study materials for BFTs on pilot basis.

3.5 Possible future problems and visionary solutions: The common menace of IT such as viruses, incompatibility of software with the hardware etc. may be dealt with the help of suitable IT tools/ professional interventions in pre planned ways.

4.Development of "charagah" i.e. grazing ground as a means of water conservation structure would prove to be an asset of village under MGNREGS resoling in varieties of advantages to the rural populations.

4.1 Special focus: Although it is already taken up in several places of the country, the emphasis here is to develop such grounds as a means of land reclamation, micro level water harvesting through the means of tiny grasses, livelihood activity and as an indirect means to boost the production of milk.

4.2 Development of the idea: Development of "charagah" i.e. grazing grounds under convergence with suitable schemes as a focus area work in the scheme through SHGs may be adopted throughout the country in a big way. Forage grasses such as lucerine and stylohamata based on the agro climatic suitability may increase the availability of fodder for the cattle, thereby supporting the livelihood of SHGs. It ensures water conservation and conversion in barren lands and converts them to the lands useful for agriculture purposes. The area in the vicinity of natural/ manmade water bodies may be preferred for the development of "charagah".

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4.3 Possible hurdles and their solutions: Failure of grass crops may spoil the idea. Lack of availability of market for grass plantation may hamper the livelihood of the beneficiary SHGs. To counter such problems, area specific detailed DPR of the project must be prepared based on the concept of watershed development. This will ensure year long availability of water for irrigation and it would ensure survival of plantation. Fodder trees such as shu babool, peepal etc. based on their agro climatic suitability may also be planted to develop "savanna" kind of grass fields. The selection of sites for such endeavours must be based on the willingness of the local beneficiaries to own these assets for future protection and development. The forward linking market must also be studied in professional ways before taking up such projects to ensure the complete success.

5.An innovative idea of using "roadside borrow pits as water conservation/ harvesting structure":

5.1 The background: Till date, thousands of kilometers of new earthen embankments have been constructed under MGNREGA since its inception. During the construction of earthen roads, pits are excavated on both the sides of the embankment at stipulated distance from the toe of the embankment. If such pits are continuous, they work as side drains. But usually these pits are discontinuous in the longitudinal directions of the roads. Such pits of one to two feets depths are good water harvesting / conserving structures built automatically due to construction of the roads! The quantity of water harvested through such borrow pits must also be computed in summing up the environmental benefits of the scheme.

5.2 The specific idea: The idea is to consciously deal with the water harvesting capabilities of roads. The water from the road side drains may suitably be diverted to the intermittently constructed soak pits or agricultural fields. The road side plantation may also get benefit from this road harvested water by pending it suitably. The revenue generation through the sell of such automatically collected precious water through roads may also be adopted as planned activity.

5.3 Possible difficulties and their probable solutions: The embankment of the road may get submerged due to such water harvesting efforts. To counter this menace, the water may be diverted and taken up to sufficient distance away from the road embankment. This would rather enhance the stabilty of the embankment which is often neglected.

Conclusion:-

The innovative ideas have the power of producing snowballing effects, thereby enabling the generation of more economically and sociologically viable ideas for public welfare. They have the potential of ensuring inclusive growth in rural sector provided suitable nurturing and experimentation is monitored continuously. In this paper, the development of viable innovative ideas of five different aspects of MGNREGS has been depicted through analytical means of presentation accompanied by lateral visionary thinking. Testing of hypothesis in scientific ways is recommended. The ideas may be taken up by the interested stakeholders of the scheme on

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pilot basis. Development of such innovative ideas may be encouraged at various levels so as to help the rural masses to come out of the poverty in galloping pace.

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Er. Vinay Gupta, Assistant Engineer, MGNREGS State cell ,Indrawati Bhawan, Naya Raipur (CG)