Independent Assessment of Design, Strategies, and Impacts of DAY-NRLM
(Executive Summary)



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Deendayal Antyodaya Yojana
National Rural Livelihoods Mission

Executive Summary

The Mission

1. The *Deendayal Antyodaya Yojana*-National Rural Livelihoods Mission (DAY-NRLM) is a centrally sponsored programme that aims at eliminating rural poverty through promotion of multiple livelihoods for each rural poor household. The DAY-NRLM seeks to reach out to all rural poor households and impact their livelihoods significantly by 2024–25. This is sought to be achieved through universal social mobilization, inter alia, organizing one woman member from each rural poor household into Self Help Groups (SHGs), their training and capacity building, facilitating their micro-livelihoods plans, and enabling them to implement their livelihoods plans through accessing financial resources from their own institutions and banks.

2. The community institutions are expected to enable the poor to overcome three types of exclusion responsible for perpetuating poverty *viz*., social exclusion, financial exclusion, and economic exclusion. The four key components of the Mission *viz*., social mobilization and institution building; financial inclusion; livelihoods promotion, and convergence; and social development are designed to address the exclusion of the rural poor, eliminate their poverty and bring them into the economic mainstream.

3. States are implementing DAY-NRLM in a phased but intensive mode through dedicated implementation architecture – an autonomous professional society at the state level, professional implementation support units at the district and block levels. As of March 2017, the Mission was being implemented in about 3,500 blocks spread across 29 states and 5 UTs. The Mission had mobilized over 3.86 crore households into 32.5 lakh SHGs and had achieved significant progress in financial inclusion and promotion of livelihoods of the poor.

Objectives of the Study

4. As the Mission has expanded to all States and has made significant progress, a mid-term assessment was commissioned to understand the effectiveness of the design and strategies and the emerging outcomes. The task of independent assessment was entrusted to IRMA with the following objectives:

- To evaluate the key design features, components, implementation architecture and systems established, strategies, and key processes adopted by the Mission
- To evaluate the effectiveness of resource block, intensive block and partnership block strategy
- To examine the appropriateness phased expansion approach of the Mission
- To assess the key processes adopted and emerging results of the mission in different component areas *viz*., social inclusion, institution building, financial inclusion, livelihoods promotion, and entitlements and convergence

- To study the functioning of community institutions promoted with particular reference to their self-reliance and sustainability features
- To assess preliminary outcomes/ impacts of the intervention
- To assess the implementation strategy, functioning and intermediate outcomes of RSETIs

Methods Adopted

5. Multiple methods *viz*., qualitative, quasi-qualitative (fuzzy cognitive mapping approach), and quantitative, have been used to understand and analyze the programme implementation and its impacts. The study was conducted during July 2016 – January 2017, in eight sample states of Bihar, Jharkhand, Madhya Pradesh, Maharashtra, Tamil Nadu, Andhra Pradesh, Nagaland and Jammu & Kashmir.

Design, Strategy, Implementation and Progress

6. Building upon the experience of implementing poverty alleviation programmes in the past few decades, the DAY-NRLM was designed with the following key features:

- Dedicated and sensitive support structures for implementation
- Universal social mobilization and social inclusion of the poor
- Financial inclusion
- Community funds as resources in perpetuity
- Livelihoods promotion
- Rural self-employment training institutes (RSETIs)
- Convergence, partnerships, and linkages
- Phasing out strategies

7. In keeping with the design, all states have promoted a Special Purpose Vehicle (SPV) for delivery of the Mission. However, a certain degree of autonomy to SRLMs based on local conditions will be beneficial. Although the overall design recognizes that poor people are engaged in multiple livelihood activities necessitating diversified types of support, most SRLMs at this stage were found promoting only two or three key livelihoods. However, states were in the process of promoting newer livelihoods besides strengthening the existing ones. The Mission is providing only a catalytic capital to promote livelihoods, with a major proportion of livelihood finance coming from the mainstream banks through SHG bank linkage programme. While the loans accessed under the SHG Bank Linkage scheme has seen considerable growth, especially in the poorer States such as Bihar, there appears to be ample scope for improving bank finance for livelihoods promotion.

8. Dedicated implementation support structures have been set-up at all levels right up to the block. The NMMU is the mission management unit that is meant to lead the programme at the national level. SMMUs are set up to spearhead implementation at the state level. The DMMUs and BMMUs are the professional implementation units at the district and block

levels. Sub-block units are informal entities led by cluster coordinators. Professionals largely hired from the market, lead the thematic units in the SMMU and DMMUs, under the overall technical support and guidance from the NMMU. The BMMUs lead Mission implementation from the front-end, with the support of community resource persons and other types of social capital.

9. The process design is also well articulated with phased approach for implementation. Given the constraints of financial resources and social capital, the Mission has rightly adopted a phased intensive approach, along with a resource block strategy in partnership with NRO states. In addition, the Mission has had several partnerships with NSOs and other livelihoods organizations to strengthen implementation. While intensive and resource block strategies are working well, there is a need to rethink partnerships approach wherein partners are encouraged to raise resources from third party donors. The strategy of creating sensitive support structures at different levels of Mission has provided the much-needed professional support for catalyzing the Mission activities. These institutions have also attracted professionals from the market, which has now become the core strength of the Mission. More significantly, the support structures enjoy a certain degree of autonomy to adopt innovative demand-driven strategies adopted from successful local models. The 'proof-of-concept' demonstrated through resource blocks and the social capital generated in the resource/intensive blocks has contributed to the pace of implementation. However, the social capital generated needs to be optimally deployed and utilized to speed-up Mission implementation. Notwithstanding these limitations, the Mission has by and large adopted process intensive approach, which has been, to some extent, successful in galvanizing the collective energies of the poor for undertaking livelihood activities.

10. A study of the support structures in the sample states revealed that there was relatively high attrition in some states, largely due to HR hygiene factors as well as inter-state variations in compensation. There were also delays in the reimbursement of travel claims. However, with the adoption of HR manuals by some of the states, most of the HR problems are getting addressed. The study also brought out that high turnover of CEOs and COOs in some states is a matter of concern. Continuity in tenure of the CEOs and other senior professionals is very important for uninterrupted implementation of the Mission. This is equally important in respect of the BMMU professionals who lead community institution building, financial inclusion and livelihoods promotion, at the cutting-edge level. It would be important to retain the BMMU professionals for a fairly long-term to promote sustainable institutions and livelihoods. Importance of retaining the professionals, who have had live contact with the institutions of the poor, needs no emphasis.

11. Sponsored and funded by the MoRD, the Mission is implemented by the SRLMs. The Annual Action Plans approved by the MoRD form the basis for implementation of the Mission. Each approved AAP, carries with it financial allocations. Central funds are released in installments to the state treasuries, which in turn transfer the funds to the state Missions, along with their share. The state Missions implement the AAPs as per the protocols, SOPs and processes laid down by the MoRD. The National Mission Management Unit provides

technical support to the SRLMs in the actual implementation. The study of sample states, however, revealed two constraints. First, some state treasuries were found not releasing the central and state shares to the Missions on time. The delays in fund release were found affecting the pace of Mission implementation. Establishing transactions through the principles of 'Escrow Accounting' can improve the process. Secondly, the states were not claiming the full quota of approved funds from the MoRD, due to slow pace of fund utilization.

12. The variations across the states in the strategy and the processes adopted reflect the spirit of democratic federalism. While the sequential model of social mobilization followed by livelihoods at farm and non-farm level has worked well in a few states, indications are that livelihood promotion could go hand-in-hand with social mobilization provided adequate emphasis is placed on principles of collective action. SRLMs can work out partnerships with agencies that have the skills and are willing to hand-hold producer groups in this transition. Further, the strategy of NRLM is integrating and absorbing in nature. It has the innate capacity to accommodate different approaches and models to achieve the livelihoods objective. The strength of the strategy lies in the hierarchical community institutional architecture created and the handles that it affords, to link with the external world.

13. The Mission units have been successful in mobilizing the target groups using PIP approach initially followed by the adoption of SECC data in more recent period. The mobilization completed up to March 2017 is inclusive, although there is still scope for mobilizing some marginalized households. The Mission has also been promoting financial inclusion of the poor. Apart from providing RF and CIF to a significant proportion of the SHGs, the Mission has facilitated access to a large proportion of SHGs to the bank credit. During the last two years, efforts have also been made to provide insurance services to the poor. More recently, the emphasis is on promoting bank accounts for individual members of the SHGs to facilitate, among others, direct benefit transfer. Towards this objective, the member accounts are also being *Aadhar* seeded.

14. There has been significant growth in the number of SHGs during the last four years of the Mission. However, the progress of federating the SHGs into VOs and VOs into CLFs needs to be augmented. The SHGs, besides continuing as informal bodies, may be recognized legally as associations of persons enabling them to enjoy their due rights as members of higher level structures. Further, there is need to provide a statutory basis to the VOs and CLFs such that they could become self-reliant institutions. The statutory status could also perpetuate their long-term sustainability. Equally important is to promote the pace of SHG-bank linkage not only in terms of the number of SHGs bank linked, but also in the quantum of loans.

15. As the Mission has promoted a large network of community institutions and different types of cadres, it is imperative that it focuses on strengthening and diversifying livelihood portfolio now. However, promoting livelihoods on a large scale is a daunting proposition.

The Mission needs to leverage the strengths of multiple agencies and learn from a large number of best practices in the country. The livelihood strategy also needs to be contextualized to different ecosystems.

16. The Mission has been successful in creating enabling environment for the SHGs, VOs and CLFs to manage their RF, CIF, and VRF well. However, DAY-NRLM 2.0 needs to strengthen this resolve to orient the entities for sustainable enterprise creation and management. It is expected that DAY-NRLM interventions need to transform the SHGs/VOs/CLFs into business driven entities by leveraging their strength. Such transformation needs identification of value chains with proper clustering supported by principal firms, network development agents; and identification of supply chain network partners. Clustering across districts, states and regions as applicable needs to be taken up on sector based corridors for entities to join the supply chain(s). Wherever possible, the Mission units should explore possibilities for converging with government, private sectors and NGO partners. The experiences of KVK, ATMA, NABARD, PCs, FPOs and civil society organizations need to be leveraged. Towards this end, value chain steering committees could be promoted at different levels of the Mission. Livelihoods promotion pre-supposes availability of necessary infrastructure and supply side dynamism. The Mission needs to identify such gaps and explore partnerships.

17. Apart from overseeing value chain plans and aggregating such plans for clustering, providing related infrastructure, setting-up sector specific corridors, technology backstopping, networking with public-private partnerships, creating market oriented scenarios to shield producers from market pressure, would be necessary. These committees need to conceptualize, model, prototype and pilot innovation driven value chain with active support of identified credible and performing SHGs/VOs/CLFs/PCs/FPOs for scaling up. 'Innovation fund' should be earmarked for these efforts at the levels of SRLMs.

18. Despite some of its noteworthy achievements, the DAY-NRLM has faced several constraints and challenges. In terms of the programme-level issues, the depth and width of outreach across the states have not been uniform. Considerable variations have been observed in implementation of the strategies and operations owing to structural and resource constraints. However, the DAY-NRLM has displayed considerable flexibility to adapt to newer challenges. The adoption of target oriented approach for performance monitoring may have the effect of diluting quality of processes in the long run. Further, the emphasis on converging with too many local programmes could also result in dilution of the core process agenda.

Impact Evaluation Using Micro-Econometric Approach

19. An attempt was made to assess the early outcomes of the Mission viz., assets, income, consumption, savings and investment, borrowing, outstanding debt, and migration, using a micro-econometric approach that adopted the propensity-score matching method. Household

data was collected from three states viz., Jharkhand, Maharashtra and Madhya Pradesh. The survey data was collected from 4,472 households spanning across 746 villages. The study team randomly selected 5 treatment (mostly resource blocks) and 5 control blocks. However, the sampling strategy was adjusted to address state specific constraints related to availability of resource blocks and villages. For village selection, propensity scores were estimated on the basis of pre-intervention village-level characteristics that were accessed through SECC and Census 2011 datasets. Following village selection, SECC data was used to randomly select households. The household survey was canvassed to these units.

20. The Mission treatment effects were estimated using the kernel matching method. A selection model was used to balance or minimize pre-programme differences between DAY-NRLM (referred as treatment) and non-DAY-NRLM (referred as control) households allowing the study, thereby, to estimate unbiased impact parameters for the programme on intended outcomes.

21. The study findings reveal that households in treatment areas have a higher number of productive livestock assets than those in control areas. However, no significant difference in the ownership of consumer durables (such as televisions, motor vehicles etc.) between households in treatment and control areas could be found. While the results indicate that total (net) household incomes in treatment areas were approximately 22% higher than those in control areas, largely on account of incomes from enterprises or other sources. In fact, the propensity score estimates indicate that treatment villages on an average have 25.195 enterprises compared to control villages, which have on an average 14.143 enterprises.

22. In terms of average monthly household consumption expenditure, it was found that households in programme areas do not differ significantly from households in non-programme areas. However, there are differences in the quality of consumption with treatment households having a lower share in food consumption but larger expenditures on schooling relative to those in control villages. Treatment households are significantly likelier to opt for savings from formal institutions (such as banks and MFIs). About 60% of all households in treatment areas are likely to save annually in Self-help Groups (SHGs) compared to only 16% in control areas. However, the level of savings on the part households in treatment areas is not significantly higher than that of control households.

23. The preference of treatment households for formal institutions for savings is also seen in their proclivity for formal sources of credit. On an average, households residing in treatment areas have taken 0.32 more loans than those in control areas. Indeed, households in treatment areas, on an average, have a higher loan size (nearly 67% more than the loan sizes for control households), and are more likely to borrow from formal sources of credit such as banks, MFIs and SHGs, than informal sources (such as moneylenders, friends, or family) suggesting that they have significantly improved access to and uptake of formal credit. These results suggest a broad variety of programme impacts on diverse aspects of livelihoods that are inter-related in terms of improvement in development outcomes.

Impact Assessment using Fuzzy Cognitive Mapping Approach

24. Fuzzy cognitive mapping (FCM) approach is used to study, and understand the behavior and functioning of complex systems based on people's perception. Its recurrent neural networks nature with causal relations helps in modeling complex and hard-to-model systems. While the micro-econometric approach provides a quantitative measure of DAY-NRLM impacts on seven main variables, the FCM approach evaluates DAY-NRLM impacts on 22 main variables. Based on the FCM approach impacts of NRLM interventions were assessed at two levels: (i) household level and (ii) programme and policy level. In order to assess impacts at the household level both the programme participants and programme functionaries of district, state and national levels were facilitated to draw fuzzy cognitive maps (FCMs).

25. For assessing the impacts of DAY-NRLM interventions at the household level 233 programme functionaries and 2561 programme participants constructed FCMs. However, for programme and policy-level impacts of DAY-NRLM interventions only 92 programme functionaries constructed FCMs. The FCMs were coded into separate excel sheets with each concept listed in vertical and horizontal axes forming adjacency matrices. All individual fuzzy cognitive maps obtained from the FCM exercise were aggregated using the standard aggregation method by computing arithmetic mean at each interconnection of the adjacency matrix. To simplify and understand the structure of the complex maps concepts were condensed by qualitative aggregation. The condensed concepts and their sub-concepts were tabulated to form FCM charts to conduct further FCM exercise with communities and programme functionaries. Cognitive interpretive diagrams (CID) were prepared to depict the linkages between the concepts. Besides, a CID also reflects the importance of different concepts within the system.

26. The programme functionaries have perceived higher impacts of DAY-NRLM interventions at the household level compared to programme participants in 14 out of 22 concepts. In some of the concepts like access to micro-finance, better agricultural techniques, increased agricultural production, and increased income programme participants perceived low impacts although programme functionaries perceived much higher impacts. The impacts perceived by the two groups of previous stakeholders are presented in Table 1

27. Post DAY-NRLM intervention, there has been a positive change at the household level. Both classes of respondents perceived that personal assets (personality development, self-esteem, motivation, confidence etc.) show maximum positive impacts, followed by social assets (reduced social evils, increased social cohesion, etc.), financial assets (financial stability, access to micro-finance etc.), and human assets (women empowerment, better sanitation and health, better education, better standards of living). Physical assets (water supply and irrigation, infrastructure development, etc.) show the least increase. Although, there has been significant increase in productive livestock assets, overall natural assets show

less increase. Organizational assets also show significant increase as perceived by both the respondents.

Table 1: Impacts perceived by the Programme Participants and Programme Functionaries

	Programme Participants	Programme Functionaries
High Impacts	• Women empowerment • Self-esteem enhancement • Personality development • Access to micro-finance • Reduced social evils • Increase in livestock production • High cost debt reduction	• Access to micro-finance • Women empowerment • Self-esteem enhancement • Institutional building • Increased social cohesion • Personality development • Better standards of living • Financial stability • Increase in income • Reduced social evils • Increase in agricultural production • Increase in livestock production
Medium Impacts	• Institutional building • Better education • Increased social cohesion • Better standards of living • Financial stability • Livelihood diversification • Higher participation in village institutions • Better access to govt. schemes	• Higher participation in village institutions • Better agricultural techniques • High cost debt reduction • Better education • Better access to govt. schemes
Low Impacts	• Increase in income • Augmentation of natural resources • Better agricultural techniques • Increase in agricultural production • Water supply and irrigation • Infrastructure development	• Augmentation of natural resources • Livelihood diversification • Water supply and irrigation • Infrastructure development

Note: All the impacts are in decreasing order

28. The community members perceive that the SHGs have been propagating awareness on social issues including alcoholism, child marriages, child labour, dowry, gender discrimination and domestic violence. The community members perceive that intervention of DAY-NRLM has given them voice, space and bargaining power, which is helping them to access a range of government schemes. Further, the respondents also stated that DAY-NRLM

has given the rural poor an opportunity to improve their livelihoods. It is to be noted that several other state and central government-sponsored schemes have started making use of the community institutions for better implementation.

Management Information System

29. DAY-NRLM is adopting a 'transaction-based' MIS. The system needs to be supported by detailing transaction life cycles at all levels, preparing transaction tables and creating data model standards. Seamless integration between databases needs to be taken up. A robust national level 'data model' is needed urgently and MoRD should steer this exercise. Unique identification number for SHG/VO/CLF/PC/FPOs could be a game changer in the seamless data integration. Transaction alerts need to be well crafted for all stakeholders especially banks, and members of SHGs. Validation of transactions is seen to be inadequate in sample SRLMs wherein the role of SLBC is severely underperformed. Alerts on delays, wrong entries, failed transactions and transaction reversals, validation of accounts and performance of banks are of prime concern for any 'transaction based' intervention. The alerts need to be part of the DAY-NRLM process. Irrespective of strategies to adopt PIP and/or SECC based identification, MIS should have enough safeguards for data warehousing and data mining for traceability and analyses.

30. NIC cloud '*Meghraj'* is used for data, intranet, and web-related services. Entirely depending on this arrangement is not free from challenges. Ideally, the DAY-NRLM should adopt a 'hybrid' form of cloud with fail over platforms and share bandwidth across SRLMs. The SRLMs should be discouraged from having their own Management Information Systems. VPN supported cloud administration would be ideal for DAY-NRLM and its constituents since the approach is 'process specific'. Distributed database architecture will be beneficial in this environment. Audit trails should be put in place.

31. All SRLMs and NMMU should adopt common standards for operating systems, databases, applications, protocols on operation and security. Interactions for all stakeholders and at all layers of the MIS pyramid need to be supported by alerts through interactive services in local language interfaces (aligned to GPS coordinates). Links of CBOs with banks should be uniformly managed and SLBC needs to take the lead. It was observed that SHG product codes are not uniform across linked banks, further, the software application is not common across banks and not aligned to RBI standards either. Similarly, rate of interests for SHGs as per their categories (listed through district category declared by DAY-NRLM) are without any alignment as envisaged. Approval cycle time for linking to banks, releasing loans and cycle time for updating transactions need to improve considerably.

32. Information dissemination and networking should be well organized with the support of ICTs. ICTs can be used for wider reach and dissemination of best practices of the entities nurtured. Networks with programmes like e-Shakti programme of NABARD, e-NAM and other initiates need to be promoted for single window services to members of DAY-NRLM.

Functioning of Rural Self Employment Training Institutes

33. While the training provided by NAR is adequate, the handholding support post training leaves room for improvement, especially in districts with high poverty and poor banking infrastructure.

34. The RSETI carries out various awareness campaigns which, however, require strengthening. Inadequate attention to demand assessments has probably affected the settlement rate.

35. The target of 750 trainees per year seems rather modest. Given the rather low percentage of self-employed people in sample districts and modest, easily achievable goals, it remains unclear whether the impact of RSETI is significant enough to make a dent in the business ecosystem of the region.

36. Although the concept of RSETI is good, the overall impact of the programme is yet to be realized as the RSETI is not working to its full capacity. Greater emphasis needs to be placed on infrastructure, linking credit, market linkages, and better coordination with sponsoring institutions for the timely identification of applicants and reimbursement of payments.

Key Recommendations

37. Some of the SRLMs have reported about delay in the release of funds by the state treasury. This process needs to be monitored and improved. Establishing transactions through the principles of 'Escrow Accounting' can improve the process. There is need to introduce an ecosystem with adoption of suitable technologies to trigger alerts on non-compliance of fund disbursements and generation of online MIS at various level for respective stakeholders including NMMU, State treasury, SRLMs, DMMU, BMMU and Banks.

30. Apart from formalizing organizational structural arrangements, SRLMs are expected to have competent human resource up to the level of sub-block units. Performance incentive based compensation packages should be designed for attracting and retaining professionals to manage the programme at various levels.

39. Provision of process manuals in the areas of HR, Procurement and Accounting for SRLMs is a major step for the DAY-NRLM. Such manuals for SHGs, VOs and CLFs should also be prepared.

40. Entities like VOs, CLFs, and producers' collectives created should be registered under appropriate Act. At least, the higher-level structures, like CLFs, and producers' collectives necessarily have to attain required legal form and size for sustainability.

41. NMMU and SRLMs should support creation of business environment, enhancement of skills, and identification of value chains with proper clustering supported by principal

firms, network development agents; and identification of supply chain network partners. Clustering across states, districts and regions need to be taken up for creation of sector-based corridors. Scaling-up requires creation of nationwide value chain plans.

42. Micro-econometric approach provides a quantitative measure of DAY-NRLM impacts on seven main variables. On the other hand fuzzy cognitive mapping approach evaluates its impacts on 22 main (variable) concepts. Multiple impacts such as women empowerment, enhancement of self-esteem of women, personality development of women, reduction in social evils, social cohesion should be triangulated using structural equation modeling, as they have registered high degree impacts of the intervention.

43. Low impacts have been registered by agriculture, augmentation of natural resources and infrastructure development. Hence, to facilitate climate resilient production system, convergence arrangements need to be worked out.

44. Expectations on DAY-NRLM are rightly high because is one of the most important poverty eradication programmes. Hence the Mission requires higher order of funding and commitment of implementing agencies and community based organisations.