Mainstreaming of Natural Resource Management (NRM) Business Models
An approach for financing NRM projects

Umbrella Programme for Natural Resource Management (UPNRM)
Abbreviations

ADS  Area Development Scheme  
AP  Andhra Pradesh  
BIRD  Bankers Institute for Rural Development  
BMZ  German Federal Ministry of Economic Cooperation and Development  
CB  Capacity Building  
CBI  Central Bank of India  
CP  Channel Partner  
CSR  Corporate Social Responsibility  
DCCB  District Central Cooperative Bank  
ESG  Environmental and Social Governance  
EUR  Euro  
FPDO  Farmer Producer Organisation  
GDP  Gross Domestic Product  
GIZ  Gesellschaft für Internationale Zusammenarbeit GmbH  
GJ  Gujarat  
GoI  Government of India  
IDBI  Industrial Development Bank of India  
KA  Karnataka  
KW  Kreditanstalt für Wiederaufbau  
KL  Kerala  
MDP  Management Development Programmes  
MH  Maharashtra  
NABARD  National Bank For Agriculture And Rural Development  
NAFIS  NABARD All India Rural Financial Inclusion Survey, 2016-17  
NGO  Non-Governmental Organisation  
NPA  Non-Performing Asset  
NRM  Natural Resource Management  
PACS  Primary Agriculture Credit Society  
RBL  Ratanakar Bank Limited  
RCU  Regional Coordination Unit  
RJ  Rajasthan  
RO  Regional Office  
RS  Indian Rupees  
SBI  State Bank of India  
SHG  Self-Help Group  
SLBC  State Level Bankers Committee  
SSI  Sustainable Sugarcane Initiative  
TC  Technical Cooperation  
TN  Tamil Nadu  
ToT  Training of Trainers  
UPNRM  Umbrella Programme for Natural Resource Management  
VAPID  Vasundhara Agri-Horti Producer Co. Ltd  
VKGB  Vidarbha Konkan Gramin Bank  
WB  West Bengal
The agriculture sector employs more than 50 per cent of the total workforce in India and contributes around 17-18 per cent to the country’s Gross Domestic Product (GDP) (Economic Survey 2018). Small farmers and small farm holdings dominate India’s agricultural sector. They are poor and vulnerable to environmental and economic shocks. Access to economic growth is determining their livelihoods, impacting their income, welfare and health of local enterprises. This document provides a quick overview of how to strengthen this sector using experiences, tools and learning generated by the UPNRM programme. More details of models are available in a separate volume II - Natural Resource Management based Business Models for financing.

Background

THE NATURAL RESOURCE MANAGEMENT (NRM) SECTOR IN INDIA

CONTEXT

The agriculture sector employs more than 50 per cent of the total workforce in India and contributes around 17-18 per cent to the country’s Gross Domestic Product (GDP) (Economic Survey 2018). Small farmers and small farm holdings dominate India’s agricultural sector. They are poor and vulnerable to environmental and economic shocks. Access to economic growth is determining their livelihoods, impacting their income, welfare and health of local enterprises. This document provides a quick overview of how to strengthen this sector using experiences, tools and learning generated by the UPNRM programme. More details of models are available in a separate volume II - Natural Resource Management based Business Models for financing.

STATUS AND WAY FORWARD

Till date, regardless of the government’s efforts to incentivise banks to provide term loans to small and marginal farmers, only few banks have started to explore and reap the potential of the new NRM rural market. Many banks continue to perceive NRM projects and lending to the poor (with limited or no collateral) as risky, stopping them to venture into the financing of projects in the Natural Resource Management Sector (SOIL report, 2017). To enhance private investments in NRM sector, there is a need to sensitise bankers, especially from commercial banks. Exposure of bankers to successful NRM centric business models and approaches will increase their readiness to finance NRM projects. It will also help banks to meet their priority sector lending targets given by the Reserve Bank of India. With the Government promoting Farmer Producer Organisations (FPOs) as vehicle for doubling farmers’ income; they can also be used as an important institutional mechanism to channelise financing for NRM. Having piloted 334 projects in 22 states through a grant of 5.7 million EUR and loan of 84.5 million EUR through NABARD, UPNRM provides a rich stock of bankable NRM projects that are eminently scalable. Mainstreaming for upscaling is the key agenda of UPNRM programme for 2019.

THE CHALLENGE OF FINANCE

There is an evident demand and supply gap in financing of NRM sector. According to a study conducted by Technology and Action for Rural Advancement (2015), to achieve Sustainable Development Goals, the total finance required for sustainable agriculture from 2015 to 2024 (in 2014-15 prices) is Rs 26 trillion (EUR 320.5 billion). The total real public expenditure expected to be available from 2015 to 2030 at 2014-15 prices is Rs 11.5 trillion (EUR 141.8 billion). Therefore, the gap is Rs 14.5 trillion (EUR 178.8 billion). It becomes clear that the

budgetary allocations under the Ministry of Agriculture, other government schemes relating to farmers and development cooperation efforts can only spark but not alone meet the huge resource requirements, to achieve the projected target for sustainable agriculture and NRM. This becomes evident when seeing the continued lack of access to formal credit channels and the high level of informal sources of credit (40 percent) among small and marginal farmers (SOIL Report, 2017), further aggravating their problems. NABARD all India Rural Financial Inclusion Survey (NAFIS, 2016-17) also found that 30.3 percent of agricultural households borrowed from informal sources and 9.2 percent of agricultural households borrowed from both formal and informal sources in year 2016.

Credit is critical to agricultural finance, whether to purchase inputs (seeds, fertiliser), tools, or to cover on-going operational costs prior to harvest time (Global Partnership for Financial Inclusion, 2015). UPNRM experiences show that by a judicious mix of an enabling grant (8-15 per cent range) and rest as flexible/appropriate credit, sustainable rural producer managed enterprises can be triggered and graduated into mainstream NRM financing. There needs to be a gradual move out of the culture of grants and subsidies towards loans and creditor’s contribution up to 50 per cent of the costs (Planning Commission Working Group on Watershed and NRM, 2002). Yet, funds are not sufficient by themselves. They need to be matched with the development of capacities to ensure the right skill sets and organisational structures that foster wage and self-employment as significant agricultural and natural resources-based livelihoods.

40% of households have to access informal sources of finance of which 30% rely exclusively on informal credit

50% of the total workforce in India works in agriculture sector

26tn required to achieve Sustainable Development Goals

Rs
The Indo-German Umbrella Programme for Natural Resource Management (UPNRM)

The National Bank for Agriculture and Rural Development (NABARD) is supporting the government objective to double the income of farmers by 2022 and to move away from the grant-based approach to the provision of loans with an integrated grant and capacity building component within the NRM Sector. To sustainably fill the demand and supply gap of funds, the UPNRM partners - NABARD, Gesellschaft für Internationale Zusammenarbeit (GIZ) and Kreditanstalt für Wiederaufbau (KfW) - have developed and tested different NRM business models across India over the last 10 years. Objectives, approaches, guiding principles are as illustrated.

UPNRM OVERVIEW

OBJECTIVES OF UPNRM

- Improve rural livelihoods through community-based sustainable NRM interventions
- Gradual shift from Grant-based to Loan-based Models & Project-based approaches
- Facilitate upscaling of best practices and models
- Increase investment in NRM sector in India
- Improve the quality of NRM interventions (esp. design, planning, implementation and monitoring)
- Influence NRM policy through best practices and showcasing new and innovative business models

UPNRM’S CREDIT PLUS FINANCING APPROACH

Need assessment allows the issuing of a demand-oriented loan (92-94 per cent) plus a grant for need-based capacity building (6-8 per cent) through convergence with government schemes and CSR.

GUIDING PRINCIPLES FOR PROJECT SELECTION

- Pro-poor
- Sustainable
- Community participation
- Good governance
- Integrated and needs based approach

Technical Corporation support in risk mitigation and capacity building (CB)

- Regional Coordination Units (RCUs) support NABARD Regional Offices (ROs) in project identification, appraisal, monitoring
- Business Models integrate need assessment, demand-oriented loan and capacity building component
- Three-pronged CB strategy ensures strong core capacities of channel partners, RCUs and ROs
- Project risk mitigation through thematic workshops and RCU support to ROs
Mainstreaming Selected Models through Banks

The mainstreaming of successfully piloted NRM business models for financing by banks is not just a viable business opportunity for the banking sector (esp. cooperative bank, regional rural bank, commercial bank) but also a mechanism to enhance the livelihood conditions of the population engaged in the natural resource management sector. Moreover, there are many corporates and other institutional players (e.g. aggregators, processors) who are also stakeholders in the agri-value chains in which UPNRM is active. UPNRM devised a clear and effective marketing and mainstreaming strategy to sensitise India’s banking sector on the potential for financing in the NRM sphere and to explore possibilities of collaboration with institutional players through workshops, bilateral meetings, etc. As a first step, successful NRM business models have been documented and presented during a series of workshops for bankers across the country.

1. Development of information and communication products to highlight the relevance and need for mainstreaming and to facilitate banks and the government in closing the demand and supply gap.
   - **METHOD:** Document NRM Business Models for financing, UPNRM project documentation (case studies), coffee table book, posters, etc.

2. Bankers’ Workshops to promote mainstreaming of proven regional NRM Business Models among bankers across India (sensitisation/awareness building, marketing), thereby ensuring replication, upscaling and sustainability.
   - **METHOD:** Regional workshops

3. Support (1) ROs/RCU in conducting district level bankers meets to highlight farmer’s credit demands & models’ potential; (2) banks in assessing & integrating NRM Business Models into their credit structure, linking them to regional schemes.
   - **METHOD:** Handholding, exposure visits, end to end support products, processes (Market Capacity Assessment Framework, Environment & Social Governance, Gender inclusion in NRM project planning)

4. Develop regional demonstration projects covering NRM Business Models (integrated fishery, sustainable sugarcane initiative, solar based intervention, etc.)
   - **METHOD:** Regional demonstration projects

5. Link NRM Business Models to bigger budget schemes of NABARD and Government of India Programmes.
   - **METHOD:** Leveraging on other funds and resources (e.g. Area Development Scheme (ADS), interest subvention from State Governments or GoI, convergence with climate proofing of investments, FPO promotion and other sector schemes of DoI)

**UPNRM’S MAINSTREAMING APPROACH**

- Comprehensive Manual for NRM project design, appraisal, monitoring and impact assessment
- Rapid Need Assessment (RNA) tool for identifying capacity gaps of implementing channel partners
- Web-based loan monitoring system- at NABARD Regional Office and Head Office level, at Channel Partner level for individual farmer loan monitoring
- MIS system (UPNRM Minds) – provides details about individual projects
- Integrated Environmental and Social Governance Framework into the UPNRM appraisal process.
- Integration of Market Assessment Capability Framework in appraisal process
- Gender training manual developed for officers from Bankers Institute of Rural Development (BIRD) and other verticals of NASARD
- Gender Training of Trainers (ToT) for BIRD faculty – Lucknow, Bholpur and Mangalore
- Support towards initiatives of NABARD in areas of climate change

**STANDARDS AND PROCESSES DEVELOPED FOR NRM PROJECT DEVELOPMENT, MANAGEMENT AND MONITORING**

- Comprehensive Manual for NRM project design, appraisal, monitoring and impact assessment
- Rapid Need Assessment (RNA) tool for identifying capacity gaps of implementing channel partners
- Web-based loan monitoring system- at NABARD Regional Office and Head Office level, at Channel Partner level for individual farmer loan monitoring
- MIS system (UPNRM Minds) – provides details about individual projects
- Integrated Environmental and Social Governance Framework into the UPNRM appraisal process.
- Integration of Market Assessment Capability Framework in appraisal process
- Gender training manual developed for officers from Bankers Institute of Rural Development (BIRD) and other verticals of NASARD
- Gender Training of Trainers (ToT) for BIRD faculty – Lucknow, Bholpur and Mangalore
- Support towards initiatives of NABARD in areas of climate change
The regional workshops with managers and senior officers from commercial and rural development banks took place in Maharashtra, West Bengal and Kerala during the first half of 2018. The objective was to provide bankers the necessary information and exposure for them to gain the necessary confidence and trust in the NRM Business Models’ bankability. The meetings served as a platform for regional rural banks, district central cooperative banks, urban cooperative banks and commercial banks, NABARD and GIZ to come together and discuss how the NRM centric Business Models developed under UPNRM can be up-scaled, replicated and mainstreamed. Bankers were presented selected NRM Business Models, focusing on cost-economics, bankability, environmental impacts as well as scope for upscaling and replication across different NRM thematic areas. The main details of the bankers meetings are illustrated below.

**Regional Workshops**
1. Pune 29 Nov 2017
2. Kolkata 20 Feb 2018
3. Trivandrum 25 Apr 2018

**Business Models Presented**
1. Integrated Vegetable Cultivation
2. Sustainable Sugarcane Initiative
3. Integrated Fish Farming
4. Organic Farming and Vermi-compost Marketing
5. System of Rice Intensification
6. Sustainable Mushroom Production
7. Animal Husbandry with Integrated Biogas System
8. Tissue Cultural Banana Farming & Waste Utilisation
9. Beekeeping / Forest Honey Harvesting and Processing
10. Livestock Farming under Sustainable NRM Approach

**Objective**
- Mainstreaming NRM Business Models for financing
  1. Introduce & promote successful climate smart NRM-centric bankable and scalable business models
  2. Jointly build road map to mainstream successful UPNRM pilot projects into core banking portfolio

**Participants**
- Senior officers (40-50 per workshop) from:
  - Commercial Banks: Bank of India, Canara Bank, Bank of Baroda, Indian Overseas Bank, Bank of India, Syndicate Bank, South Indian Bank
  - Regional Rural Banks: State Bank of India, Canara Bank, Bank of Baroda, Indian Overseas Bank, DCB Bank, Central Bank of India, United Bank of India, Axis Bank, Yes Bank, RBL bank, Syndicate Bank, South Indian Bank

**Benefits to Banks**
- Huge replication & upscaling potential through banking sector
  - Huge untapped market in NRM sector
  - Entrance to sustainable finance (win-win approach)
  - Increase outreach to bankable borrowers
  - Gain foot in climate proofed sustainable NRM projects
  - Tap training, capacity and monitoring support
  - Risk mitigation (insurance, FPQ/Self Help Groups (SHGs)/Non-Governmental Organisation (NGOs) cooperation, convergence with government schemes and resource institutions)

**Challenges Perceived by Bank and Possible Actions from GIZ Technical Cooperation**
- Climate change/vulnerability
  - High labour cost, lack of infrastructure, logistics, cold chain, lack of adequate marketing facilities/arrangements
- Lack of N60 & FPQ rating/identification mechanism
- Nascent stage of NGOs, high rate of Non Performing Assets (NPAs), limited credit worthy partner agencies with and credit handling
- Lack of understanding, experience and technical expertise in dealing with NRM Business Models

**Possible Actions from GIZ**
- Document successful climate proofed business models on NRM financing
- Facilitate convergence with government schemes
- Work with FPOs and explore bank-NGO models
- Share a list of good NGOs and FPOs who successfully implemented UPNRM projects to banks
- Conduct studies on FPQ capacity assessment
- Start engaging with Banks, Primary Agriculture Credit Societies (PACS), FPOs, training, capacity building
TAKE-UP OF PILOTED UPNRM BUSINESS MODELS BY BANKS

**District Central Cooperative Banks (DCCBs)**
- Sindhudurg, Maharashtra: Implementing biogas

**Industrial Development Bank of India (IDBI) Bank**
- Sangali, Maharashtra: Drip in sugarcane with Kranti Sugar Cooperative

**State Bank of India (SBI)**
- Aurangabad, Maharashtra: Drip in cotton with Olasa

**Central Bank of India (CBI)**
- Wardha, Maharashtra: Drip in cotton and sprinkler

**Vidarsha Konkan Gramin Bank (VKGB)**

**Bank of Maharashtra and NABKISAN**
- Maharashtra: Cashew and mango processing with Vasundhara Agri-Horti Producer Co. Ltd (VAPCOL)

**State Bank of India (SBI)**
- Rayagada, Odisha: Sanctioned Rs 50 lakhs as loan for Integrated Vegetable Cultivation

**Cosmos Bank**
- Maharashtra: First project on Sustainable Sugarcane Initiative (SSI) cultivation under discussions

**District Central Cooperative Banks (DCCBs)**
- Sindhudurg, Maharashtra: Implementing biogas

**Industrial Development Bank of India (IDBI) Bank**
- Sangali, Maharashtra: Drip in sugarcane with Kranti Sugar Cooperative

**State Bank of India (SBI)**
- Aurangabad, Maharashtra: Drip in cotton with Olasa

**Central Bank of India (CBI)**
- Wardha, Maharashtra: Drip in cotton and sprinkler

**Vidarsha Konkan Gramin Bank (VKGB)**

**Bank of Maharashtra and NABKISAN**
- Maharashtra: Cashew and mango processing with Vasundhara Agri-Horti Producer Co. Ltd (VAPCOL)

**State Bank of India (SBI)**
- Rayagada, Odisha: Sanctioned Rs 50 lakhs as loan for Integrated Vegetable Cultivation

**Cosmos Bank**
- Maharashtra: First project on Sustainable Sugarcane Initiative (SSI) cultivation under discussions

EXAMPLES OF GOVERNMENT PROGRAMMES & POLICIES

- Income-enhancing and income-protection programmes (Mahatama Gandhi National Rural Employment Guarantee Scheme, National Rural Livelihood Mission, etc.)
- Quality of life improvement programmes providing food, shelter and social safety nets to the poor (National Food Security Act, Pradhan Mantri Awas Yojana, National Social Assistance Programme)
- Employment, skill development and employability programmes (national policy of the Ministry of Skill Development and Enterprise)
- Policy and funding support for collectivising farmers into Farmer Producer Organisations (FPOs)
- Corporate Social Responsibility (CSR) legislation requires corporates to channel part of their profits into socially relevant projects
**SUGGESTED NEXT STEPS**

1. **Technical Cooperation (TC) support in mainstreaming of piloted UPNRM business models** including (1) Documentation of NRM Business Models and UPNRM case studies, (2) Present NRM Business Models for financial feasibility check and uptake at State Level Bankers and Committee (SLBC), (4) Capacity building training for UPNRM channel partners (CP) on upscaling of UPNRM projects using climate finance, (5) Develop demonstration projects of selected NRM Business Models (e.g. integrated fishery), (6) Conduct state-level workshop and exposure visits for bankers, (7) Policy papers/ circular based guidance, and (8) Building value chain specific NRM projects that can interest private sector participants and thereby attract institutional credit.

2. **NABARD and GIZ to provide need-based support to banks** to prepare model schemes on value chain financing and other business models under UPNRM (share project proposals/model schemes, FPO database / NGO profiles) to enable banks to identify good projects. Along with this, NABARD may include financially viable NRM projects piloted under UPNRM and other projects in its district level Potential Linked Credit Plans (PLP) and State Focus Papers.

3. **Develop partnership models with NGOs and FPOs** to channelise credit with high NRM impacts to the last mile customer. In such partnerships, Banks, Non-Banking Financial Companies (NBFCs) will be involved as financing partners.

4. **Interested NGOs to approach banks** (bank’s local main office) to initiate bank-NGO Business Models.

5. **TC and NABARD support in risk mitigation** including (1) TC to support to ROs in project identification, appraisal, monitoring through RCUs; (2) Project risk mitigation (thematic workshops, RCUs support to ROs in reschedulment of stressed account, one time settlement account and special audits); (3) Refine default risk identification and management system (partner selection on good financial track record, capacity and responsibilities matching for CPs (part responsibility models like community mobilisation, technology/ knowledge dissemination, GIS/Geo-spatial monitoring, convergenced); and (4) Financial viability assessment of CP for onlending project (define appropriate payment, sufficient interest margins).

6. **TC and NABARD support capacity building efficiency** including (1) Programmatic CB support to Channel Partners and NABARD (Box); (2) CB intervention in line with action plan, and (3) Better selection of channel partners, follow-up, guidance and monitoring to ensure the successful implementation of projects.

7. **TC and NABARD support in developing standards and processes** including (1) Comprehensive manual for NRM project design, appraisal, monitoring and impact assessment, (2) Rapid Need Assessment tool for identifying capacity gaps of implementing channel partners, (3) Web-based loan monitoring system at NABARD, ROs, Channel Partners, (4) Management Information Systems (MIS) like UPNRM Minds for capturing details of individual projects; (5) Integration of environmental and social governance in the UPNRM appraisal process; (6) Integration of a market assessment capability framework and Environmental, Social and Governance (ESG) framework in the appraisal process; (7) Gender training manual for Bankers Institute for Rural Development (BIRD) and other verticals of NABARD; (8) Gender Training of Trainers (ToT) for BIRD faculties; and (9) Support climate change initiatives of NABARD.

8. **Bankers’ strategy to reduce financial risks** including financing of successful NRM centric business models, second phase financing for UPNRM channel partners, engaging FPOs, promoting bank-NGO and model for NRM financing.

9. **Creating a ‘pull’ by sensitising different actors like private players (CSR), NGOs and FPOs. UPNRM projects deal with procurement, processing and marketing of agricultural (food, grains, horticultural produce etc.), aquaculture (fish) and forest-based produce (pulp wood, minor forest produce etc.). There are many corporates and other institutional players (aggregators, processors, etc.) who are also stakeholders in these agri-value chains. Exploring possibilities of collaboration with institutional players through e.g. workshops, bilateral meetings will help in strengthening the business value chains of agricultural, horticultural, aquaculture and forest-based commodities.**