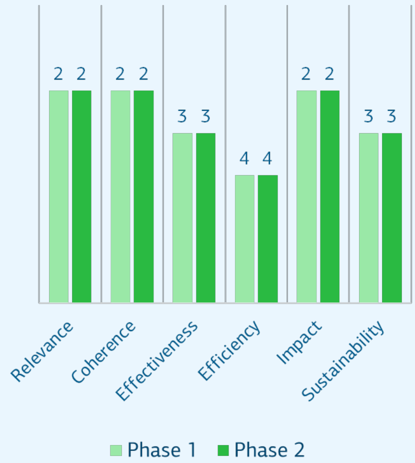
Ex-post evaluation
Umbrella Programme (UPNRM), India

Title	Umbrella Programme for Natural Resource Management – NABARD, Phases 1 + 2
Sector and CRS code	31193 Agricultural financial services
BMZ number	Phase 1: 2005 66 646 (Inv.) and 2007 70 263 (BM) Phase 2: 2011 65 380, 2011 65 372 (both Inv.) and 2011 70 224 (BM)
Commissioned by	Federal Ministry for Economic Cooperation and Development (BMZ)
Recipient and executing agency	National Bank for Agriculture and Rural Development (NABARD)
FC financing volume and instrument	Phase 1: Investment 16.3 million EUR (15 million EUR FC loan, 1.3 million EUR grant), BM 3 million EUR (grant) Phase 2: Investment 52 million EUR (42 million EUR interest subsidy and 10 million EUR IDA loan), BM 2 million EUR (grant)
Project duration	2007 **Reporting year** 2025 **Year of random sample** 2025

Overall rating

moderately successful



1: very successful – **6:** completely unsuccessful

Project objectives and implementation

The objective at the outcome level was to demonstrate the economic viability of credit-financed projects in the field of natural resource management. At the higher level of development policy, the objective was to contribute to improved resource management and income growth in the supported areas. A total of 334 individual projects in 10 sectors were supported with loans nationwide.

Key findings

The project was moderately successful. The following points were particularly relevant for the appraisal:

- The programme pursued a holistic development policy approach that addressed several structural problems simultaneously (resource degradation, lack of financial inclusion, lack of social participation) and thus played a pioneering role in the Indian context.
- Many of the individual projects supported were profitable from a microeconomic perspective and in some cases led to significant increases in income for the final borrowers. In addition, financial inclusion was strengthened.
- The data on the environmental impacts is insufficient. Anecdotal evidence suggests that selective improvements in resource management were achieved.
- However, the programme was not viable from an investor's perspective. NABARD incurred heavy losses during implementation. The main reasons for this were costly processes for the management and settlement of non-performing loans and high currency hedging costs. This impaired the effectiveness, efficiency and sustainability of the programme.
- Elements of the programme have been incorporated into some national programmes. However, there is currently no programme that continues the programme approach of credit-financed support for participatory natural resource management approaches.

Conclusions

- Credit financing for participatory natural resource management approaches is principally possible – primarily for investments with economic objectives and less so for investments primarily oriented towards resource conservation. Economically viable lending only seems realistic if accompanying subsidies and advisory services are provided.
- Agricultural producer organizations have an intrinsic interest in the success of credit programmes and are very familiar with the challenges faced by smallholder farms. They are therefore particularly well suited as implementation partners.

Contents

List of abbreviations

PCR	Final completion report
GDP	Gross domestic product
BM	Accompanying measure
BMZ	Federal Ministry for Economic Cooperation and Development
DAC	Development Assistance Committee
EPE	Ex-post evaluation
EUR	Euro
EZ	Development cooperation
FC	Financial cooperation
FC E	FC Evaluation
FI	Financial institution
GIZ	German Society for International Cooperation
HDI	Human Development Index
Inv	investment
IP	Implementation partner
IWMP	Integrated Watershed Management Programme
MFI	Microfinance institution
MP	Module proposal
NABARD	National Bank for Agriculture and Rural Development
NPA	Non-Performing Assets
NRLM	National Rural Livelihoods Mission
NRM	Natural Resource Management
NGO	Non-governmental organisation
OECD	Organisation for Economic Co-operation and Development
PA	Project appraisal
PO	Producer organisation
PODF	Producer Organisation Development Fund
PP	Project proposal
PwC	PriceWaterhouseCoopers
UPNRM	Umbrella Programme for Natural Resources Management
TC	Technical cooperation
USD	US dollar

Overview

General conditions and classification of the project

The two-phase *Umbrella Programme for Natural Resources Management* (UPNRM) evaluated here was the first initiative of its kind in India when it was launched. It built on the long-standing cooperation between NABARD (National Bank for Agriculture and Rural Development), India's largest agricultural development bank, and German development cooperation (DC) in the implementation of programmes in the field of natural resource management (NRM). UPNRM was designed to break with the traditional mindset of grant-oriented development approaches and demonstrate that participatory, community-managed approaches to NRM are also possible through credit financing and are economically viable.

The first phase of the programme (UPNRM I) was reviewed in 2007 and implemented from 2008 to 2012. The second phase (UPNRM II) built directly on the previous phase and ran from 2013 to 2018. It aimed to scale up the project types developed in phase I and further develop the portfolio. The final review was not carried out until four years after the end of implementation. Due to the close connection between the two phases in terms of content, a joint evaluation and appraisal was carried out.

Brief description

The Umbrella Programme for Natural Resource Management (UPNRM) in India promoted credit-based, participatory approaches to natural resource management (NRM) for disadvantaged rural groups (target group). Through the National Bank for Agriculture and Rural Development (NABARD) – the programme's implementing agency – 334 individual projects in 10 sectors were supported nationwide, including livestock farming, agriculture, agroforestry, efficient irrigation systems, marketing and organic farming. The projects were implemented by NGOs, cooperatives and producer organisations. They included investments to generate income, promote local value creation and implement protective measures, with lending combined with grants and accompanying advisory and training measures. UPNRM aimed to demonstrate that participatory, community-managed approaches to NRM are economically viable even when financed through loans rather than grants. The programme was the first of its kind in India and was therefore pioneering in nature.

Breakdown of total costs

The cost breakdown shows the planned and actual costs for the investment measures (Inv.) and accompanying measures (BM) of the two programme phases. NABARD's own contribution of EUR 12.9 million for the investment costs of the second phase shown here represents the cumulative losses incurred by NABARD from the programme over both phases. NABARD's originally planned own contributions of EUR 7.1 million for investment measures were not made in view of the high losses.

	Phase 1 Inv. (plan)	Phase 1 Inv. (actual)	Phase 1 BM (plan)	Phase 1 BM (actual)	Phase 2 Inv (plan)	Phase 2 Inv (Actual)	Phase 2 BM (planned)	Phase 2 BM (actual)
Investment costs (total) in million EUR	19.4	19.68	3.0	3.0	59.0	64.9	2.0	1.34
Own contribution in EUR million	3.0	3.37	0	0	7.0	12.9	0	0
External financing in EUR million	16.4	16.31	3.0	3.0	52.0	52.0	2.0	1.34
of which BMZ funds in EUR million	16.4	16.31	3.0	3.0	14.41	14.41	2.0	1.34

Table1: *Breakdown of costs*

Map of the project region

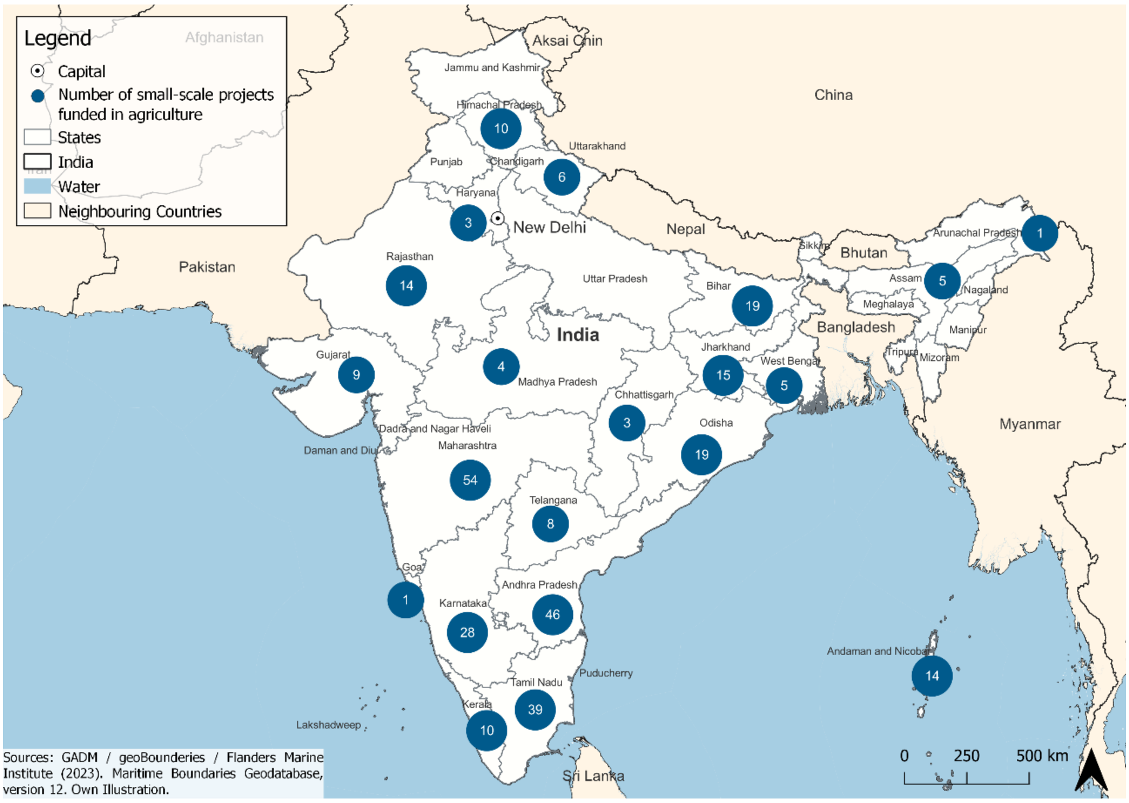


Figure 1 *Map of project region*
Source*: Final control report. In addition, 21 projects were implemented across national borders.*

Project-specific strengths and weaknesses of the project

The strengths include in particular:

- The programme played a pioneering role in India with its loan-based financing of participatory natural resource management projects and had a broad impact. It pursued a holistic development policy approach that addressed several structural challenges simultaneously (resource degradation, lack of financial inclusion, lack of social participation) and demonstrated a willingness to try out innovative solutions.
- The programme was a logical continuation of previous German development cooperation efforts. During the implementation phase, lessons learned from interim evaluations were used to make adjustments.
- Many of the individual projects funded were profitable from a microeconomic perspective and led to significant increases in income for the final borrowers.
- The programme was characterised by close, complementary cooperation between German TC, FC and the implementing agency. The accompanying support provided by TC to the implementation partners and target group in the course of the accompanying measure and to the implementing agency strengthened their implementation capacities and was a critical factor for success. Training in financial management for implementation partners, who previously had little experience in this area, was particularly relevant.
- Strong community participation and ownership, as well as the role of the implementation partners in providing technical, economic and financial support to farmers, were particularly important for the success of the programme.
- Thanks to many years of cooperation in various projects, NABARD was able to carefully select its implementation partners. Cooperation with well-known and trustworthy partners appears to be particularly important, given that NABARD had no influence on the quality and results of the individual NRM projects after the loans had been granted.
- The involvement of local financial institutions in processing loan repayments relieved the burden on implementation partners and offered borrowers the opportunity to prove their creditworthiness and thus build up a credit history. This helped to increase financial inclusion.

The weaknesses include in particular:

- NABARD incurred high costs due to loan defaults, high provisions and hedging against exchange rate risks. This meant that the project approach was not economically viable for NABARD.
- A conceptual weakness of the programme was insufficient risk provisioning with regard to loan defaults and exchange rate hedging.
- The evaluation team was not provided with sufficient information to comprehensively appraise the causes of the loan defaults. NABARD itself appears to analyse these only to a limited extent, although a better understanding has high relevance for risk assessment and the further development of NRM financing.
- Restrictive requirements regarding profitability expectations and lower grant funding were detrimental to innovative and primarily resource conservation-oriented projects.
- Due to limited flexibility in margin structuring, some implementation partners did not have the necessary financial resources to provide the personnel or scope of services required to strengthen the prospects of success for the respective projects.

General conclusions/lessons learned

- The programme has shown that credit financing for participatory natural resource management approaches is fundamentally possible. In the context of the programme, this applied primarily to investments with primarily economic objectives and less to investments primarily oriented towards resource conservation. Accompanying grants and advisory services that can be flexibly adapted to project-specific needs are important to ensure sustainability and viability of lending.
- When promoting credit-financed NRM projects, care must be taken when selecting implementation partners to ensure that, in addition to their ability to build trust and mobilise people, they also have experience in the area of finance and credit management. If they do not have this experience, it makes sense to cooperate with financial institutions that can contribute the necessary expertise.

- Overly restrictive and inflexible requirements regarding the margins that implementation partners are allowed to charge borrowers can jeopardise the success of the project if this prevents the necessary additional human resources from being built up.
- The strong involvement and personal responsibility of the community, as well as the role of producer organisations (POs) and cooperatives in supporting farmers in technical, economic and financial terms, were particularly important for the success of the programme. It therefore seems sensible to support smallholders in organising local producer communities in similar approaches. These enable them to build up and pool knowledge and resources and to represent their interests vis-à-vis financial institutions and buyers of their products.
- The profitability of projects in the field of natural resource management, especially those with a focus on agriculture, also depends on weather events that cannot be influenced and is therefore particularly risky. In order to reduce default risks in credit-financed approaches and thus strengthen economic viability for borrowers and lenders, it makes sense to combine the loan with climate insurance. Climate insurance and loan deferrals can reduce the economic risks for beneficiaries and improve their ability to repay.
- The programme has shown that the costs of currency hedging can significantly impair the success of a loan-financed development project. This risk can be prevented by financing in local currency.
- Digitalisation offers additional opportunities to increase the productivity of investments and reduce credit default risks. (Example: In a dairy cattle project, a machine was purchased that measures the quantity and fat content of milk and calculates the purchase price). In a new edition of a credit-financed NRM support programme, the potential of new technologies could be taken into account as an additional selection criterion. The National Innovation Foundation and the Indian Institutes of Management would be suitable national cooperation partners for NABARD in this context.

Assessment according to OECD DAC criteria

Relevance

1. **Alignment with policies and priorities**

   At the time of the project appraisal in 2007, 57.7% of the Indian population was living below the poverty line. Poverty was even more pronounced in rural areas, where approximately 71% of the population lived at that time. Even then, progressive land degradation and environmental pollution were threatening the livelihoods of the rural population (World Bank). According to FAO estimates, more than 60% of agricultural land was affected by soil erosion and desertification at the time of the appraisal. To meet these challenges, the Indian government attached and continues to attach great importance to promoting natural resource management (NRM) that is both ecologically and sustainably managed. According to the MV, the financing requirements in the NRM sector at that time were two to three times higher than the allocated financial resources. In addition, government support programmes were largely inefficient and rarely linked to components of sustainability that could be used to increase agricultural production. In many cases, transfers dominated instead of investments; the programmes only achieved short-term poverty reduction effects. Against this backdrop, the National Planning Commission called for high investments in increasing the productivity of degraded land and breaking the dominance of government subsidies through greater credit financing of productive investments.

   At the time of the evaluation, sustainability in rural development remains one of India's development policy priorities. The Indian government has introduced several policies and measures to promote sustainable agricultural practices and sustainability in NRM, including the *National Mission for Sustainable Agriculture*, the *National Agroforestry Policy*, and the *National Biodiversity Action Plan.*

   The main objectives of UPNRM – poverty reduction and environmental and resource protection – are central concerns and essential quality features of German development cooperation (DC). UPNRM also aimed to promote gender equality. This has been a central pillar of German development cooperation since the adoption of the feminist development policy strategy in 2022. The programme was therefore aligned with the policies and priorities of India and German development cooperation.

2. **Alignment with the needs and capacities of stakeholders and beneficiaries**

   The appraisal identified the inadequate and unsustainable development of rural areas in India as a core problem, characterised by the dominance of grant-financed support for often unproductive investments and a simultaneous lack of affordable financing options for the rural population. The dominance of subsidies led to misguided incentives and a neglect of social participation, quality and financial sustainability of the interventions.

   The programme targeted the rural poor, particularly indigenous and other disadvantaged population groups whose primary source of income was agricultural production. These groups had little or no access to formal financial services. Reasons for this include a lack of collateral (e.g. land titles or assets) and limited or no credit history that could serve as proof of reputation. Inadequate access to financial products is also due to the risky nature of agriculture, as agricultural production is vulnerable to extreme weather events, increasing soil erosion and rising production costs. Private banks and other financial institutions have therefore often been and continue to be unwilling to grant loans to the poor rural population, even though there is a great need and willingness for investment in more productive and income-diversifying activities. At the time of the appraisal, the target group usually only had access to loans from informal sources for short-term and smaller investments at very high interest rates (in some cases over 20% per week).

   In addition, NABARD and policy makers in the field of agricultural promotion were also included in the target group. The aim was to demonstrate to them that loan-based NRM promotion is also viable from the perspective of a development bank. In view of scarce public funds and high financing requirements for NRM, the promotion of financially viable approaches through credit programmes has not lost its relevance since the project was conceived. In addition, the availability of grant financing from international sources is becoming increasingly scarce. In 2024, international development funds (Official Development Assistance) fell by 7.1%, and a further decline of 9% to 17% is forecast for 2025.

   The problem of the target group's lack of creditworthiness and access to credit, combined with scarce funding, required the development of new, credit-financed financing models for the target group. At the same time, increasing resource degradation necessitated the promotion of sustainable NRM approaches. The programme's design and objectives were therefore spot on.

3. Appropriateness of design

The design of UPNRM was based on the following impact logic reconstructed by EPE: People develop business models in the field of NRM and receive low-interest loans and credit-related training measures (main activities) as part of the programme. The selection of approaches to be supported is based on multidimensional criteria and takes into account overarching principles[1] that ensure the promotion of the desired target group and principles. Training was intended to strengthen the implementation capacities of the target group and implementation partners (IP) at the local level. The loans should be used to make investments in ecologically and economically sustainable activities in the area of NRM. The resulting increases in productivity lead to higher yields, which can be used to repay the loan interest and at the same time increase local incomes. This in turn demonstrates the economic viability of the approach (outcome). Successful approaches should be scaled up through further lending.[2] The positive demonstration effect leads to an expansion of the credit supply for the target group in the NRM sector (higher outcome level). Ecologically sustainable practices improve soil protection and water management and increase climate resilience. Improved resource availability and productivity gains as a result of the investments secure the livelihoods of the target group and improve their living conditions (impact goal).

To date, the majority of the target group has had little or no experience with taking out and repaying loans and implementing new business models. In order to close this gap and to process loans efficiently, non-governmental organisations (NGOs), producer organisations (POs) or other organisations should act as implementation partners to support the target group in developing and implementing business ideas, while also acting as a link to NABARD. In retrospect, this decision is understandable and appropriate.

In principle, the impact logic of the programme is plausible. However, in retrospect, it must be critically noted that too little attention was paid to risk prevention in the design. At the time of the appraisal, NABARD had no experience with credit-based programmes for NRMs. High credit default rates were only explicitly mentioned as a risk in the second phase of the programme ([3]). This was to be counteracted by supporting the target group as part of the accompanying measure. In retrospect, it is clear that these measures were insufficient. The risk of high costs and reduced economic viability due to the hedging of exchange rate risks was not recognised at the time of the audit. In retrospect, this was an omission with significant negative financial consequences for the implementing agency.

The information on the overall objective is not always consistent in the project documents. At the time of the first phase audit, the overall objective was defined as improving the living conditions of the poor rural population. This objective is appropriate from both a past and present perspective and was adopted with slight modifications in the EPE. The original indicator system covered the objective at the outcome level in its entirety, but was adjusted in some areas as part of the EPE because not all indicators were at the correct impact level. No indicators were formulated at the impact level. Given that lending to small farmers was new territory for the implementing agency and that the beneficiaries and many IPs had little or no experience in implementing credit-financed projects, the programme's objectives were extremely ambitious and courageous. This was particularly true given that the approaches were also intended to be as participatory and ecologically sustainable as possible. The programme design was based on a holistic understanding of development and was aimed at promoting all three dimensions of sustainability.

4. Adaptability – response to change

Based on the knowledge and experience gained in phase 1 of the umbrella programme, the implementation modalities for phase 2 were adjusted, including greater diversification of project types and a stronger focus on participatory approaches. The selection criteria for projects were also revised in light of the experience gained in the first phase.[4] In addition, lending to projects without a direct NRM connection was only permitted if the majority of beneficiaries were landless people.

When the number of non-performing loans began to rise in 2013, grant funds from Phase 1, which were originally intended to promote resource conservation approaches, were allocated to the risk reserve in order to cushion the growing number of loan defaults.

Rating summary of relevance: successful (2 – both phases)

UPNRM addressed key challenges in rural development, pursuing an innovative, needs-based and highly relevant approach. One conceptual weakness of the programme was insufficient risk provisioning with regard to loan defaults and exchange rate hedging costs. This detracts from the otherwise high relevance.

[1] These were: poverty orientation, ensuring environmental sustainability, participation, and the principle of subsidiarity in decision-making.
[2] The difference between the interest rates agreed between NABARD and borrowers and the actual total cost of providing capital was to be continuously reinvested in the programme in order to finance further measures.
[3] At the time of the second phase appraisal (March 2012), the total loan amount from phase 1 had been exhausted, and the repayment rate of borrowers was still 100%.
[4] For example, only loan-financed livestock projects should be supported if they pursue a holistic approach that includes integrated fodder cultivation and usage agreements for communal grazing land.

Coherence

5. Internal coherence

The project was part of the development cooperation funding priority "Natural Resource Management" with the overall objective of improving the natural resource base, minimising the risks of climate change and increasing productivity and income in rural areas. The project fitted well into the programme and contributed to its objectives.

Within the framework of UPNRM, there was close, complementary cooperation between German TC and FC. TC supported NABARD in product development, ensuring a balanced portfolio, revising guidelines and assessment criteria, revising standardised project applications and developing model projects for simplified replication, developing quality assurance systems, marketing financial products and general capacity building.

Furthermore, TC provided support in the area of information and knowledge management (e.g. in the development of impact monitoring), general capacity development for implementation partners (NGOs and other borrowers) at programme level (e.g. in the areas of financial management, documentation, value creation, quality assurance systems, marketing) to ensure the long-term capacity of key partners for NABARD.

In addition, the TC promoted the feeding of learning experiences into national and state policies, strategies and programmes, and public relations work to increase the political visibility of the umbrella programme's approach.

The project built on experience gained from previous FC projects on the rehabilitation of water catchment areas and the promotion of disadvantaged groups (Adivasi programmes). Among other things, these programmes demonstrated important factors for sustainability of the project, including the development of participatory approaches, cooperation with qualified NGOs and a consistent focus on the responsible and sustainable use of natural resources. In addition, activities to promote rural finance have shown that market-oriented interest rates and the possibility of convergence with other government programmes are necessary to ensure the sustainability of projects. These findings were taken into account in the design of UPNRM.

UPNRM is consistent with the international norms and standards to which German development cooperation (DC) is committed by focusing on environmental sustainability, social participation and poverty reduction. The community-based approach pursued, with the close involvement of the target group in decision-making processes, is also in line with the principles of sustainable development and social responsibility enshrined in international standards.

6. External coherence

The project was designed as a bilateral, policy-based programme and offered the opportunity to develop innovative financing models and integrate the supported approaches into the political framework and national support instruments. It was the first project of its kind. According to the information available, no other financial institutions (either formal or informal) or international donors offered loans on favourable terms to the poor rural population at the time of implementation. Thus, there were no direct negative effects on alternative providers of financial services. NABARD also had no previous experience in granting loans in rural areas. The programme thus played a pioneering role.

In some of the project areas, additional government programmes, development projects and activities under the Corporate Social Responsibility (CSR) Act were implemented during and after the implementation of UPNRM. There was no systematic exchange of information or other forms of coordination between UPNRM and these approaches. The evaluation was unable to determine whether this meant that potential synergies remained unrealised. Given the continuing high level of needs and requirements in the project areas, the risk of inefficient overlaps is quite low, but forms of inefficiency cannot be ruled out.

Rating summary of coherence: successful (2 – both phases)

The internal coherence of the programme is high, as synergies between TC and FC were realised and the programme built on experience from previous FC projects. The programme was also innovative and integrated well into existing political frameworks. Parallel to UPNRM, other national programmes in the field of NRM were implemented. However, there was no systematic exchange of experience. It is not possible to conclusively assess whether this meant that synergies remained unexploited. External coherence is still appraised as successful.

Effectiveness

7. Achievement of objectives

The objective at the outcome level was to demonstrate that credit-financed projects in the field of natural resource management (NRM) are economically viable.

The following indicators were used to measure the outcome objective:

Indicator	Status at time of review	Target value at EPE (review)	Actual value at PCR	Actual value at EPE
(1) NABARD will continue at least one loan-based NRM programme after the end of the project.	n.a.	At least 1 programme[5]	Short-term programme was outsourced. No longer corresponded to the basic approach of UPNRM.	Target value not achieved
(2) Proportion of supported projects that have led to income increases for borrowers. (in %)	n.a.	>= 70	>=70% based on a random sample of 35 individual projects visited	Based on information from the PCR and qualitative impressions during on-site visits. Target value achieved
(3) Proportion of funded projects that pursue practices that promote environmental sustainability. (in %)	n.a.	>= 90	Approx. 75 Based on a random sample of 35 individual projects visited	Based on information from the PCR and qualitative impressions during on-site visits. Target vlaue partially achieved
(4) Proportion of funded projects based on a community-based approach. (in %)	n.a.	>= 70	Achieved – based on a random sample of 35 individual projects visited	Based on information from the PCR and qualitative impressions during on-site visits. Target value achieved
(5) Proportion of loans repaid on time and in full. (in %)	n.a.	>= 90	Achieved approx. 94% projects	EPE did not have precise information on the number of non-performing projects and the default volume. Data insufficient

Table 2*: Outcome target achievement*
Source*: PCR report, external evaluation by PwC (2021), qualitative findings from EPE mission.*

The assessment of target achievement is based on qualitative interviews with representatives of NABARD and implementation partners, as well as a random sample of 35 individual projects as part of an external evaluation conducted by PwC in 2021 and 6 individual projects in the course of the present EPE. As the random sample is small and the information on income increases is based on self-reported estimates rather than measurements, the conclusions drawn from it are subject to uncertainty.

Indicator 1: At the end of the first phase of the programme, NABARD had established its own NRM direct lending business and expanded it further with, among other things, the Producer Organisation Development Fund (PODF). In 2017, NABARD permanently outsourced its direct lending business to its subsidiary NABKISAN. Although the PODF was subsequently continued, its content does not correspond to the UPNRM approach.

Indicator 2: According to the external evaluation study conducted by PwC in 2021, 74% of the projects supported achieved income increases. On average, these were just under 50%. In many cases, incomes doubled, particularly in agriculture and related sectors. In addition, 63% of respondents stated that their projects had positive employment effects. This positive picture was confirmed during the on-site visits carried out as part of the EPE. In five of the six projects visited , beneficiaries reported productivity and income-generating effects. It also became clear that the investments had created additional sources of income, for example through dairy farming. This diversification helps to effectively mitigate financial risks.

Indicator 3: The environmental sustainability of the financed projects should be ensured through appropriate selection criteria. The projects supported were considered to have high levels of environmental sustainability if they: (i) promoted soil and water conservation, (ii) reduced the use of chemicals and supported organic practices, (iii) improved biodiversity and climate resilience, or (iv) ensured long-term resource renewal. Investigations by PWC showed that approximately three-quarters of the

[5] A programme provides a framework for the following aspects: type of NRM investment or sector, selection criteria, financing volume and financing conditions.

projects/programmes visited were environmentally sustainable according to the project definition. Six projects/programmes were visited as part of the EPE mission, five of which met at least one of the environmental selection criteria.

Indicator 4: The majority of projects had a community-based management structure. It can be assumed that the target of 70% was achieved.

Indicator 5: At the time of the PCR in 2022, according to the PCR report, 20 projects with a volume of approximately EUR 4.3 million were classified as non-*performing* loans (NPA). During the EPE mission, NABARD stated that the actual number was higher, but was unable (or unwilling) to provide exact figures on the number and amount of loan defaults. Overall, however, the programme was a loss-making venture for NABARD.

In summary, it can be said that despite the microeconomic profitability of many small projects, the programme was not economically viable and therefore failed to achieve its objectives.

8. Contribution to the achievement of objectives

Nationwide, a total of 334 individual projects (113 from phase 1, 221 from phase 2) in 10 different (broadly defined) sectors (see Table 3) were supported at an average interest rate of 10% (output 1). The programme aimed to facilitate access to credit for NRM projects, but not to subsidise interest rates. Therefore, loans were offered at market rates with the aim of enabling subsequent upscaling by other financial institutions. According to PCR, a total of around 300,000 people benefited from the projects. As envisaged in the PA, the projects were selected by NABARD in a multi-stage process based on (i) their compliance with NABARD's NRM policy, (ii) their fulfilment of basic principles (see relevance), (iii) the borrowers' performance, (iv) technical feasibility and (v) financial viability. The projects had to have a clear market strategy and a sustainable business model to ensure sufficient income to repay the loans. In addition, emphasis was placed on the inclusion of socially and economically disadvantaged groups.

Around three-quarters of the approaches supported were agricultural or agriculture-related projects/programmes (sectors 1-4 and 6 in Table 3). Furthermore, investments in income generation and the promotion of local value creation clearly dominated the project types, ahead of resource conservation-oriented interventions. Given the need to generate sufficient returns to repay the loans, this is not surprising, at least in retrospect. This trend intensified in the second phase due to conditions that were even closer to market conditions and the lower grant element (the grant ratio fell from 20% to 3.85%).[6] Financing conditions for end borrowers, and thus also credit demand and willingness to innovate, tended to deteriorate over the implementation period. The reasons for this were general market developments, rising risk hedging costs (see below) and higher capital costs for NABARD. This illustrates the conflict of objectives between innovation capacity and financial sustainability.

The funded projects were implemented by more than 200 different IPs. To strengthen the technical and financial capacities of the target group and the IPs, training courses and workshops were held to accompany the financing of the individual projects (Output 3). The training and consulting needs were assessed in advance on the part of the IPs in order to ensure that support was tailored to their needs. The results of the external evaluation by PwC showed that the accompanying support measures improved the implementation capacities of the final borrowers and IPs in terms of quality and were successful overall. However, it also became clear that the support needs were sometimes greater than what was offered.

The majority of IPs were NGOs (58%), followed by cooperatives (18%), producer organisations (8%), private companies and others. NABARD had already worked with many of the NGOs in previous FC programmes. According to NABARD, the local presence of the NGOs and their mobilisation capabilities were important prerequisites for the successful implementation of the programme. However, in the course of implementation, it became apparent that many NGOs were weak implementation partners, particularly in the area of finance and credit management. Strict requirements of the programme regarding the margins that NGOs were allowed to charge for implementation meant that smaller NGOs in particular were not always able to recruit sufficient additional staff.[7]

According to NABARD, borrowers and other respondents, the selection of IPs was critical to success. The IPs identified viable NRM investments, selected creditworthy farmers, explained credit terms and conditions, and organised training courses on financial management and the productive use of investments. IPs that had been working with NABARD for a longer period of time generally achieved better results. Project experience also shows that POs or agricultural cooperatives are particularly well suited as IPs. They often also acted as buyers of the agricultural products promoted by the project loans. In some cases, they themselves acted as borrowers. These IPs therefore had a strong vested interest in successful implementation and repayment.

[6] Interest costs for NABARD were higher in Phase 2 than in Phase 1, as the majority of the FC loan in Phase 2 was an interest-subsidised loan rather than a loan on IDA terms (Phase 1).
[7] The IPs were allowed to charge a margin of up to 3-5% above the interest rates granted by NABARD.

They also established efficient mechanisms to enforce repayments, for example by deducting the repayment instalment from the proceeds that farmers received for selling their harvest to the POs.

	Sector	Number	%
1	*Livestock farming*	98	29
2	*Agriculture*	62	19
3	*Agroforestry/processing of agricultural products*	42	13
4	*Efficient irrigation systems*	38	11
5	*Product marketing*	28	8
6	*Organic farming*	12	4
7	*Fisheries*	10	3
8	*Drinking water*	9	3
9	*Waste management*	3	1
10	Other	32	10
	Total	**334**	**100**

Table 4 *: Sectoral distribution and frequency of individual projects funded*
Source*: PCR report*

The indicators used to measure the achievement of objectives are directly related to the programme's funding and support activities. As there were hardly any alternative financing options for the target group, it is plausible to attribute the economic (indicator 2), environmental (indicator 3) and social (indicator 4) successes achieved to the financing and capacity-building measures of UPNRM. UPNRM has succeeded in placing local communities at the centre of development processes and providing them with the tools and knowledge to improve their own living conditions. This is considered a success factor of the programme.

The positive socio-economic effects of successful approaches are offset by loan default rates of at least 6% of the portfolio (indicator 5). The reasons for this were varied (e.g. severe weather events, lack of management skills). In some cases, however, profitability and liquidity bottlenecks in the business plans of the projects concerned were not sufficiently taken into account during the selection process.

With the increase in non-performing loans and loan defaults, NABARD gradually adjusted its risk management. For example, repayment plans were made more flexible and better aligned with the actual cash flows of the projects in order to increase financial stability and improve repayment capacity. Furthermore, local financial institutions were increasingly involved in the implementation. For end borrowers, this had the additional advantage that they were able to build up a credit history with the financial institutions and thus improve their access to formal credit. The tightening of risk management was necessary to prevent higher losses for NABARD and led to a reduction in loan defaults. However, it also came at the expense of innovation, the resource conservation orientation of the measures supported and the attractiveness of the programme from the borrowers' perspective. In addition, NABARD's high rating requirements make it difficult to finance NRM projects, as loan defaults can have a significant impact on ratings and refinancing conditions. In retrospect, it must be noted that the risk associated with the project approach is not well compatible with NABARD's structures.[8]

From a purely business perspective, the programme was a loss-making venture for NABARD. By the time of the PCR in 2022, cumulative losses amounted to at least EUR 12.9 million. In addition to the provisions to be made for loan defaults and administrative costs, this was mainly due to rising hedging costs. According to the PCR, hedging costs almost doubled NABARD's

[8] At the same time, there would probably have been no other agency with which this programme could have been implemented more successfully.

financing costs. A detailed breakdown of costs is not available, which is why the "genuine" costs without avoidable hedging costs cannot be quantified.

Despite the losses, NABARD emphasises that the programme has supported a paradigm shift in its portfolio from grant-based to credit-based financing, with the following developments: (i) a higher proportion of credit-based projects, (ii) increased use of blended finance (credit plus grants) and (iii) more support for credit lines from POs and rural enterprises. The exact portfolio proportions are not public. NABARD sees its role as steering and piloting new approaches, while permanent implementation after successful piloting lies with state and private banks.

The programme has had structural impacts. It has succeeded in raising political awareness of the relevance of sustainability-oriented financing approaches for the NRM. The findings from the programme have influenced several policy initiatives in the agricultural and rural development sector. The most important of these include:

(1) Micro-Irrigation Fund: The Indian Micro-Irrigation Fund (MIF) was established by the Indian government in 2019 to promote the spread of micro-irrigation technologies in agriculture. The MIF primarily provides low-interest loans to promote the installation of micro-irrigation systems. The establishment of the MIF built on the experience of UPNRM. The introduction of efficient small-scale irrigation systems as part of some NRM projects had proven to be a successful investment. NABARD is responsible for the management and implementation of the MIF.

(2) Dairy Processing and Infrastructure Development Fund (DPIDF): The DPIDF was established in 2018 with the aim of increasing milk processing capacity in India, improving the quality of dairy products and strengthening the income situation of dairy farmers. NABARD is responsible for the management and implementation of the DPIDF. The DPIDF incorporates some of the fundamental principles and approaches of the UPNRM, including sustainability in resource use, the integration of communities in decision-making and resource use, capacity building of beneficiaries, and the introduction of technological innovations.

(3) PODF: Under the UPNRM, producer groups, which are usually responsible for the processing and marketing of (agricultural) products, have proven to be particularly successful borrowers. Therefore, in 2012, during the course of the UPNRM, NABARD established the Producer Organisation Development Fund (PODF) to support the establishment and development of agricultural cooperatives in India. It supported producer groups with loans and technical advice. In 2017, the fund was outsourced to NABARD's subsidiary NABKISAN. NABKISAN is active in the direct lending business and offers loans to agricultural cooperatives.

In 2015, the programme received external recognition for promoting innovative financing products in the agricultural sector with the "Best Innovations for Financial Services Award" at the 5th Global Sustainable Finance Conference in Karlsruhe, Germany.

Among other things, UPNRM aimed to promote the inclusive participation of poor and rural populations and disadvantaged groups and to promote gender equality. Over 78% of project participants came from disadvantaged population groups. A total of 44% of participants were female. Due to a lack of gender-specific reporting and limited findings from the on-site evaluation mission regarding the programme's impact on women, it is not possible to make any reliable statements as to whether gender equality was actually achieved.

9. Quality of implementation

The reports (UNPRM final report) show that the monitoring of NRM projects could be improved. Initially, NABARD staff did not have sufficient resources to identify borrower performance deviations at an early stage and prevent repayment shortfalls, especially in phase 1. In phase 2, training courses were introduced to strengthen monitoring and control, which reduced the number of non-performing loans but at the same time greatly reduced the number of newly approved projects, thereby undermining the original purpose of the UPNRM. The quality of the IPs was mixed: their local presence and mobilisation capacity were important, but many showed weaknesses in financial and credit management due to a lack of experience with loan-based projects.

10. Unintended effects (positive or negative)

There is no evidence of positive or negative unintended effects. One risk of the approach was that loan defaults could cause social problems. Social pressure associated with loan defaults, especially in community loans and microfinance programmes, is a significant problem in India. It can lead to shame, isolation and a debt trap when borrowers take out new loans to pay off old ones. This destabilises not only individuals but also entire communities and undermines confidence in credit programmes.

However, the evaluation team has little information on social pressure in the context of UPNRM I and II. Social pressure was not identified as a significant issue in the field, as each beneficiary was responsible for their own loan. However, it was not possible to visit projects with non-performing loans, so the social and economic consequences of loan defaults could not be fully analysed. Without these insights, the appraisal of the relevance of social pressure in the project context remains incomplete.

Rating summary of effectiveness: moderately successful (3 both phases)

The programme has shown that loan financing for participatory approaches to NRM is possible. The projects supported enabled borrowers to increase their income and find new employment opportunities, and the majority of them met the ecological sustainability criteria. The investment and interest costs of the NRM projects generally paid for themselves in the short to medium term and, in some cases, generated significant direct and indirect additional (economic) benefits in the long term. In this respect, the programme has fundamentally succeeded in developing credit-based NRM approaches that are economically viable.

For NABARD – and thus the financing side – the programme was a loss-making venture. The interest income was not sufficient to cover the costs. Despite many positive effects, the goal of economic viability was therefore not achieved. Financing in local currency would have significantly reduced the costs for NABARD. Taking into account the positive effects at the level of the final borrowers and the structural effects that were achieved, the effectiveness is nevertheless appraised as limited success.

Efficiency

11. Production efficiency

The costs of the first phase, including accompanying measures (EUR 3.0 million), were estimated at EUR 22.4 million during the appraisal. In fact, they were marginally higher at EUR 22.6 million. The additional costs were borne by NABARD. Of the total expenditure, EUR 18.3 million went to loan-financed investments, EUR 0.31 million to grant-financed, protection-oriented investments and EUR 1.0 million to the Risk Mitigation Fund, which was set up to cushion credit defaults. The remaining EUR 3.0 million was spent on accompanying measures as planned. A large part of these funds went towards training and capacity building at the IPs (EUR 2.91 million).

In the second phase, the actual costs of EUR 53.34 million were significantly below the planned costs of EUR 61.14 million. In both phases, the FC funds were largely exhausted (see Table 1). However, in this case, the cost underspend is not a sign of high efficiency, but is due to the fact that NABARD did not make the originally planned own contribution of EUR 7.14 million and instead (partially) compensated for the losses of around EUR 12.9 million incurred in phases I and II. At the time of the appraisal, NABARD's own funds were originally earmarked for further loans and grants.

The originally planned allocation of the budget between investment expenditure and expenditure on accompanying measures was adhered to in phase 1. In the second phase, around EUR 1.3 million of the EUR 2.0 million earmarked was spent on accompanying measures, which is also reflected in lower total expenditure for phase 2. Across all phases, investment expenditure amounted to EUR 71.7 million, accounting for 94.3% of expenditure. Of this, EUR 67 million went to credit-based investments (88.1% of total funds).

In principle, the available funds were used sparingly. This is also reflected in the very high investment ratio. However, during the evaluation mission, some IPs, especially NGOs, emphasised that their remuneration was very low and barely covered the costs of their activities.

However, the decisive factor in the appraisal of production efficiency is the enormous losses incurred by NABARD as a result of the programme. These amounted to EUR 12.9 million at the end of the programme in 2022. The costs of administration, provisions and hedging against exchange rate risks, which rose as the implementation period progressed, necessitated a gradual increase in interest rates for end borrowers: in the first phase, they ranged between 8% and 10%, and in phase 2 between 10% and 12%. This increase, coupled with a decline in market interest rates, severely impaired the attractiveness of NRM financing for end users.

The number of approved projects decreased significantly in phase 2 compared to the first phase. This was due, among other things, to higher interest costs and increased monitoring requirements by NABARD. At the same time, there was an increase in phase 2 in the number of projects classified as "slow-moving", "withdrawn" or "non-starter". These delays were partly due to uncontrollable external factors such as drought and an unfavourable market environment. The resulting need to provide additional funds to support distressed projects further increased the overall cost of the programme and significantly limited the scope for lending with grant elements.

The implementation period and, in particular, project completion took place considerably later than planned, partly due to the COVID-19 pandemic. However, this had no significant impact on costs.

12. Allocation efficiency

Based on the implementation experience, it can be said in retrospect that a significant portion of NABARD's losses could have been avoided through a refinancing option in local currency, thereby increasing economic sustainability (outcome target). The losses incurred by NABARD could only be covered by raising interest rates. However, rising interest rates reduced the attractiveness and affordability of the financing for beneficiaries.

In addition, the findings suggest that more flexible margins for implementation partners, stronger cooperation with producer organisations and closer involvement of financial institutions would probably have reduced the risk of loan defaults and thus increased the effectiveness of the programme.

Rating summary of efficiency: moderately unsuccessful (4 – both phases)

NABARD's high losses significantly impair the efficiency of the programme, particularly production efficiency.

Impact

13. Overarching developmental changes

The impact-level objective was to improve the living conditions of the poor rural population in the supported areas. Furthermore, the aim was to improve resource management.

No indicators for measuring the achievement of objectives at the impact level were formulated during the project review. With regard to the environmental objective, this is also difficult to do retrospectively due to a lack of secondary data. Accordingly, this is assessed primarily on the basis of qualitative impressions and plausibility considerations. The development of poverty incidence in rural India is used to assess the change in living conditions.

The following indicator was used to measure the impact objective:

Indicator	Status at time of review	Target value at EPE (review)	Actual value at PCR	Actual value at EPE
(1) Poverty incidence in rural India	26.3% (in 2011)	Decline in poverty incidence	11.6% (2019)	5.3% (2022)[9] Target value achieved

Table 5: *Impact target achievement*
Source: *World Bank, 2025.*

According to the World Bank, extreme poverty (poverty line at USD 3 per day) in rural India fell from 26.3% to 5.3% between 2011 and 2022, the last year for which data is available (World Bank, 2025). The target for improving living conditions has therefore been achieved.

14. Contribution to overarching intended developmental changes

The productivity, income and employment effects of many of the projects supported (see effectiveness, Section 8) suggest that the programme has promoted economic development in the project locations and thus contributed to an improvement in living conditions. These improvements were achieved at a time when India was experiencing high growth rates and a significant decline in extreme poverty in rural areas.

At the same time, the programme promoted the development and documentation of innovative technologies and traditional knowledge, which contributes to strengthening rural entrepreneurship. By supporting projects in various sectors, the programme has also increased the diversification and resilience of the rural sector. World Bank analyses show that the sharp decline in rural poverty is closely associated with an increase in self-employment (World Bank, 2025).

In discussions with former project beneficiaries on site during the EPE mission, it was frequently noted that the project helped them to build a positive credit history and improve their creditworthiness. Financial education training strengthened their skills in dealing with loans. In addition, networks between beneficiaries and financial institutions were promoted, facilitating access to credit. As a result, many former beneficiaries were able to obtain further loans on favourable terms even after the project ended. According to the respondents, the positive effects also sparked interest among other people (non-beneficiaries) in similar investments, some of which were also realised. However, it must be emphasised here too that it was not possible to visit projects experiencing difficulties or NPAs, and that the main reasons for and effects of NPAs remain insufficiently known.

It was envisaged that 90% of the financed projects would implement ecologically sustainable approaches (see effectiveness). However, there is a lack of quantitative data on the development of the stock and condition of natural resources in the supported areas. In addition, the term "natural resource management" and the associated level of ambition were not sufficiently defined.

[9] No more recent data is available.

The approaches supported focused predominantly on economic objectives and, in most cases, led only to a selective reduction in soil erosion and improved water management.

Information from an external final evaluation of the project by PwC and observations from the evaluation mission show that the positive effects on the stock of natural resources vary greatly depending on the project. Some projects improved the management of scarce water resources or reduced the use of pesticides in agricultural cultivation. Others had less significant positive effects on natural resources, but prioritised income-generating activities or the health of the target group, for example. In line with this, the PwC study noted that the proportion of projects with high levels of sustainability was particularly high in the irrigation, fisheries and sustainability (100% of the projects examined) and in the livestock sector (90%), somewhat lower in agricultural projects (43%) and rather low in measures to improve marketing (33%). However, the PwC study does not provide a detailed illustration of the methodology used to measure the criterion of "environmental sustainability". Overall, the projects/programmes visited during the EPE mission contributed only to a limited extent to improved environmental sustainability. The benefits of the projects were more evident in economic factors (such as improvements in productivity and income). Overall, the ecological objectives of the programme can only be appraised with limited certainty. Based on the available data, it seems plausible that the programme has contributed to an improvement in the NRM, but only to a limited extent.

15. Contribution to overarching unintended developmental changes

The evaluation team is not aware of any positive or negative unintended development policy changes in connection with the programme.

Rating summary of impact: successful (2 – both phases)

The programme has contributed to improving living conditions in the project areas through productivity, income and employment effects. In addition, awareness of approaches to sustainability in financing has been raised and political initiatives have been launched. The promotion of innovative technologies and the strengthening of agricultural value chains have contributed to the diversification and resilience of the rural sector. Due to a lack of meaningful data, only limited statements can be made about the ecological effects of the programme. Some projects have contributed to improved water management and erosion control in specific areas. We appraise the ecological effects of the programme as limited. Overall, we appraise the impact as still successful.

Sustainability

16. Capacities of beneficiaries and stakeholders

Since many of the projects funded were economically successful and also had (limited) environmental impacts, it can be assumed that most beneficiaries are now in a better position than before the project started. Due to a lack of available information, it is not possible to provide detailed data on the current capacities of those affected or the implementation partners.

17. Contribution to supporting sustainable capacities

The local implementation partners – often NGOs – benefited from project-financed training courses to strengthen their technical skills and management capacities and improve their financial management knowledge. During the EPE mission, the IPs interviewed praised the quality of the training courses and emphasised their relevance for the sustainability of the project.

Many end borrowers also benefited from the training and accompanying measures by acquiring new knowledge and practices for the NRM activities they were pursuing. In addition, they were able to expand their financial management skills through the training offered and improve their access to financial products. In many cases, the NRM investments led to an increase in production and income for the target group. Diversification of income sources was often sought. It should be noted, however, that due to a lack of information, no statements can be made about the situation of end borrowers whose projects failed and who were unable to repay their loans (NPA).

The programme triggered a paradigm shift at NABARD from subsidy-based to credit-based financing and led to the establishment of several funds to promote sustainability in agricultural practices. Thanks to the programme funding, agricultural start-ups have been able to successfully establish themselves on the market. POs in particular have proven to be particularly promising in this regard. The PODF was established as a temporary instrument to promote POs. Another (indirect) result of the programme was the establishment of NABFINS Limited, a subsidiary of NABARD. NABFINS offers microloans through group financing approaches at the local level. Both NABFINS and PODF (supported by NABKISAN) are still in operation today.

18. Durability of impacts over time

Thanks to the technical and financial capacities acquired by the IPs and beneficiaries and the productivity gains at local level, it can be assumed that the effects achieved at target group level are sustainable. Improved access to capital also enables parts of the target group to make further productive and sustainable investments on their own initiative. The situation is likely to be different for NPA projects. However, due to a lack of data and information on NPA projects, this cannot be appraised.

The greatest risk to sustainability is that the credit-financed promotion of natural resource conservation programmes will not be continued. The programme developed 15 replicable business models aimed at sustainable practices and improving the economic situation of beneficiaries.[10] The business models developed have been and continue to be applied in various national projects and programmes, including the following: National Rural Livelihoods Mission (NRLM), Soil Health Management Programme, National Biogas and Manure Management Programme, Integrated Watershed Management Programme (IWMP). However, these programmes do not work with loans, but with grants.

Contrary to what was hoped for at the time of the appraisal, the UPNRM approach has not been continued by either national programmes or internationally funded projects/programmes, as far as is known. Only NABKISAN is continuing it in part by granting loans to producer groups. However, the focus is not necessarily on improved natural resource management or the targeted inclusion of poorer sections of the population.

In view of scarce public funds and high investment needs in the area of sustainability of resource management, there is still a need for NABARD and other national financial institutions in India to increase their involvement in credit-based financing. Important lessons were learned in the course of the programme. These can be used in the design of future approaches to reduce default risks, further increase the productivity and effectiveness of individual measures and thus improve economic sustainability. Proven approaches to mitigating default risks or dealing with them appropriately include setting up a risk mitigation fund, involving financial institutions at an early stage in the implementation of individual projects, adapting repayment requirements more flexibly to cash flow, giving implementation partners more flexibility in setting margins, and strengthening cooperation with POs. High hedging costs can be avoided by financing in local currency.

In addition, other mechanisms and technologies are available to reduce credit default and increase productivity, some of which were not yet available or market-ready at the start of the programme. These include climate risk insurance, which better protects borrowers against crop failures and thus also against credit default risks.

[10] The 15 business models cover the following areas: 1. Drip irrigation systems, 2. Farm forestry and agroforestry, 3. Integrated animal husbandry, 4. Renewable energies, 5. Small biogas plants, 6. Energy-efficient pumping systems, 7. Organic farming, 8. Sustainable medicinal plant cultivation, 9. Beekeeping (apiculture), 10. Fibre extraction from banana pseudostems, 11. Furniture production from coconut fibres, 12. System of Rice Intensification (SRI), 13. Ecotourism, 14. Water management, 15. Vermicomposting.

Rating summary of sustainability: moderately successful (3 – both phases)

Many of the NRM projects supported were economically successful and achieved environmental impacts, with the result that the beneficiaries continue to benefit from an improved situation to this day. The development of technical and financial capacities and improved access to credit have created the conditions for strengthening the beneficiaries' economic situation in the long term. The programme has also had a structural impact. Many implementation partners gained valuable experience in implementing credit-financed projects and were able to expand their expertise in this area. Various sustainable business models were developed and important lessons were learned, which are now reflected in various national programmes. However, one of the main objectives of the programme was not achieved: to date, there is no comprehensive national programme for credit-financed promotion of participatory NRM approaches.

Overall rating: moderately successful (3 – both phases)

The programme was innovative, had high development policy aspirations and played a pioneering role in the Indian context. By combating resource degradation and poverty and promoting financial inclusion, it addressed key ongoing development challenges with an innovative approach based on inclusion and participation and a holistic understanding of development. The chosen approach was and remains highly relevant. The programme is characterised by internal coherence, supported by close cooperation with German TC and continuous improvement of the project approach based on learning experiences. Innovation potential and good integration into the political framework are further strengths. The main weakness of the programme is the high losses incurred by NABARD during implementation as a result of loan defaults and high currency hedging costs. Although many of the individual projects supported had positive income and employment effects and were profitable from a microeconomic perspective, the overall approach was not economically viable. The losses also reduce the efficiency of the programme. Necessary savings in view of a growing number of non-performing loans were made at the expense of grant-financed accompanying measures by the implementation partners, the spirit of innovation and the focus on resource conservation.

Despite the losses, the programme was able to have an developmental impact. For many end borrowers, the economic situation and access to financial services have improved as a result of the programme. In addition, limited ecological successes were achieved. Various sustainable business models were developed and important lessons were learned, which are now reflected in various national programmes. However, one key objective of the programme was not achieved: to date, there is no comprehensive national programme for credit-financed promotion of participatory NRM approaches.

Contribution to Agenda 2030

Shared responsibility: The programme is in line with the basic principles of Agenda 2030 and contributes both directly and indirectly to its implementation. A primary contribution was made to poverty reduction (SDG 1) and to the protection of ecosystems and biodiversity (SDG 15). Furthermore, the programme contributed to improved food security (SDG 2) and greater resilience of the target group to climate change (SDG 13). Individual NRM projects also contributed to improving drinking water supply (SDG 6). The programme was implemented by local organisations and drew on existing development plans and tried-and-tested approaches. Replicable business models and general learning experiences were disseminated and utilised in the national context.

Interplay between ecological, economic and social development: The programme followed a holistic development approach. The focus was on promoting activities that are ecologically sustainable and economically profitable.

Inclusion/leaving no one behind: By focusing on the poor rural population and providing special support to landless people, as well as closely involving the target group in the implementation of the programmes, the programme also promoted social development and at the same time met the 2030 Agenda's goal of "leaving no one behind". Participatory and collaborative implementation of the individual projects was also specifically promoted.

Methodology

Evaluation methodology

The ex-post evaluation follows the methodology of a rapid appraisal, i.e. a data-based, qualitative contribution analysis, and represents an expert opinion. The project is attributed effects based on plausibility considerations, which are based on a careful analysis of documents, data, facts and impressions. Where possible, this also includes the use of digital data sources and modern techniques (e.g. satellite data, online surveys, geocoding). The causes of any contradictory information are investigated, attempts are made to resolve them, and the assessment is based on statements that are confirmed by several sources of information (triangulation), where possible.

The analysis of the effects is based on assumed causal relationships, documented in the impact matrix developed during the project appraisal and updated during the ex-post evaluation, if necessary. The evaluation report sets out arguments as to why certain influencing factors were identified for the effects observed and why the project under review probably made a certain contribution (contribution analysis). The context of the development measure is taken into account in terms of its influence on the results. The conclusions are put into relation to the availability and quality of the data basis. An evaluation concept serves as the reference framework for the evaluation.

The method offers a balanced cost-benefit ratio for project evaluations, on average, with a balance between knowledge gain and evaluation effort, and allows for a systematic assessment of the effectiveness of DFG projects across all project evaluations. Individual ex-post evaluations cannot therefore meet the requirements of a scientific assessment in the sense of a clear causal analysis.

The main objective of the evaluations (knowledge interest) is to measure impacts, provide accountability, promote transparency and enable institutional learning.

Type of evaluation:

Trip to the project area

Key questions of the evaluation according to the evaluation concept:

- What level of relevance did the approach have then and now? Why promote community-based approaches rather than those of individual actors?
- Should high default risks and negative consequences for NABARB have been better anticipated and mitigating measures taken accordingly for PA?
- What kind of training and further education measures did IP and the target group receive? What was the content? Were these found to be useful? [Needs assessment, predominantly positive appraisal]
- How many individual projects were unable to repay their loans? How high were the losses incurred by NABARD as a result? What measures were taken to reduce the number of non-performing loans and how did this affect the overall effectiveness of the programme?
- Did the measures have any structural effects? Are NABARD or other banks now granting more loans for NRM programmes?
- Private debt of participating farmers as a negative unintended effect?
- Efficiency: Why did PCR only take place five years after the end of the support measures?
- First-time direct banking business: Is NABARD still active in direct banking today? (if applicable, also structural effect under Impact)
- Does NABARD still have an NRM business segment? How have supply and demand developed?
- Is there still demand for the business models developed?

Non-public (internal) documents

Internal project documents, secondary specialist literature, strategy papers, comparable evaluations, interim evaluation by external consultant from 2017, external evaluation by PwC (Price Waterhouse Coopers) in 2021

Directory of public sources

World Bank (2025). *India Poverty and Equity Brief: October 2025 (English). Poverty and Equity Brief Washington, D.C : World Bank Group. http://documents.worldbank.org/curated/en/099722104222534584*

Data sources and analysis tools

Monitoring data from partner PwC Evaluation study 2021, qualitative impressions on site

Project sites visited

Six were visited ("Biogas" in Kudal, "Micro-irrigation" in Kolhapur, "Supporting the rural poor to improve their livelihoods through improved NRM in Annamyya district", "Sahaja Samruddha – organic certification", "reverse osmosis water treatment plant" and "milk processing plant of a farmers' producer group") out of a total of 335 individual projects were visited.

Interview partners and modality (in person, virtual/by telephone, in writing)

Project executing agency (virtual), target group (face-to-face interviews), GIZ (virtual), implementing organisations

The following aspects limited the evaluation

The evaluation was only carried out seven years after the end of implementation, mainly because the final inspection was not carried out until 2022. Due to changes in responsibilities at NABARD, only limited institutional knowledge was available, and even after the end of the EPE mission, some questions remained unanswered. For example, the evaluation team did not have final information from the implementing agency on the exact number of non-performing loans and the resulting total losses for NABARD. Due to the enormous distances between the individual projects supported, only six projects could be visited on site during the evaluation. During the external evaluation in 2021 by PwC, 35 individual projects were visited. The underlying report does not explain how the individual projects examined were selected and whether the random sample was representative. This means that the qualitative assessments of the environmental and economic impacts of the programme are based on only a small random sample and are therefore subject to uncertainty. In addition, during the evaluation mission, only a limited understanding could be gained as to why some projects were "successful" and repaid their loans in full and on time, while others did not. One reason for this was that only successful projects were visited, even though a request had been made in advance to include non-performing projects in the travel programme. According to NABARD, this could not be implemented due to a lack of contact or contact persons for these projects.

Assessment methodology

A six-point scale is used to assess the project according to OECD DAC criteria, with the exception of the sustainability criterion. The scale values are as follows:

Level 1 Very successful: results significantly above expectations

Level 2 Successful: results fully in line with expectations, without significant shortcomings

Level 3 Moderately successful: results below expectations, but positive results predominate

Level 4 Moderately unsuccessful: significantly below expectations and negative results dominate despite recognisable positive results

Level 5 Unsuccessful: despite some positive partial results, the negative results clearly dominate

Level 6 Highly unsuccessful: the project is useless or the situation has deteriorated

The overall rating on the six-point scale is based on a project-specific weighting of the six individual criteria. Levels 1–3 of the overall rating indicate a 'successful' project, while levels 4–6 indicate an 'unsuccessful' project. It should be noted that a project can generally only be classified as "successful" in terms of development policy if both the achievement of objectives at the outcome level (effectiveness) and impact level, as well as sustainability, are rated at least as "moderately successful " (level 3).

Imprint

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