Report Number : ICRR0021096

1. Project Data

Project ID	Project Name
P119140	TN-4th NW Mount & Forest Area Dev PNO4
Country	**Practice Area(Lead)**
Tunisia	Agriculture

L/C/TF Number(s)	Closing Date (Original)	Total Project Cost (USD)
IBRD-79860	30-Jun-2017	57,160,000.00
Bank Approval Date	**Closing Date (Actual)**	
20-Dec-2010	30-Jun-2017	

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	41,600,000.00	0.00
Revised Commitment	41,600,000.00	0.00
Actual	31,902,707.93	0.00

Prepared by	Reviewed by	ICR Review Coordinator	Group
Asyl Undeland	J. W. van Holst Pellekaan	Christopher David Nelson	IEGSD (Unit 4)

2. Project Objectives and Components

a. Objectives

The **Project Development Objectives** (PDOs) of the Fourth Northwest Mountainous and Forested Areas Development Project (*Projet de Dévelopement des Zones Montagneuses et Forestières du Nord-Ouest*, PNO4) as stated in the Project Appraisal Document (PAD) and in the Loan Agreement (LA) dated January 12, 2011 were to: (i) improve the socio-economic conditions of the rural population and (ii) promote better protection and management of natural resources in the project area.

The ICR pointed out that the Fourth Northwest Mountainous and Forested Areas Development Project was "the last project in a series of PNO operations that started with PNO1 from 1982 to 1989 with a top-down watershed management approach, focused primarily on natural resources conservation and evolved gradually into an integrated participatory approach (IPA) encompassing all socioeconomic needs of the local communities. The Northwest Forestry and Pastoral Development Agency (*Office du Développement Sylvo-Pastoral du Nord-Ouest*, Odesypano) was the implementing agency established with the World Bank's assistance at the inception of the series of projects (paragraph 3).

b. Were the project objectives/key associated outcome targets revised during implementation?

No

c. Will a split evaluation be undertaken?

No

d. Components

1. Institutional support and technical assistance for preparation and implementation of the Community Development Plans *(estimated cost of this component at appraisal was US$4.96 million, which was revised to US$3.10 million in the restructuring of the project. The actual cost was Tunisian Dinar (TND) 6.6 million or about US$2.65 million (because no information was available from the World Bank's project team on the actual cost of the project's components in USD an estimate was made by converting costs available in TND to US$ using the official exchange rate of US$=TND2.495 in December 2017).* This component aimed to build the capacity and performance of the Odesypano (Northwest Forestry and Pastoral Development Agency) and its community and NGO partners, by strengthening the Integrated Participatory Approach. The component had three sub-components: (i) Support to grass-roots organizations, which aimed to finance capacity building of the grass root organizations through training, exchange visits and technical assistance; (ii) Support to selected partners of the Odesypano through information and awareness activities, capacity building, and development of computerized database systems for Monitoring and Evaluation; and (iii) Support to the Odesypano through technical assistance, capacity building activities, and the purchase of additional equipment/materials. The goal here was to build on the institutional improvements achieved under the predecessor PNO3 operation.

No major changes were made to this component. The reduction in cost was due to the appreciation of the US$ and the Euro against the Tunisian dinar over the course of the project implementation.

2. Support for agricultural and pastoral production and income generating activities *(estimated project cost at appraisal was US$4.71 million, and it was revised to US$3.80 million at the restructuring; the actual cost was TND 7,514,751 or about US$3 million (this estimate is based on an exchange rate as of December 2017)*. The goal of this component was to improve agricultural and pastoral productivity and promote diversification in target communities, such as through the transfer of improved technologies and better access to markets. Central to achieving these goals was the elaboration and implementation of Community Development Plans (*Plan de Développement Communautaire*, PDC). The component had four subcomponents: (i) Agricultural advisory services such as farmer extension activities and applied research; (ii) Support for livestock development such as improving animal health and breeding techniques; (iii)

Rehabilitation or construction of small-scale irrigation schemes aimed at rehabilitating or constructing small scale irrigation and other water supply systems; and (iv) Promotion of income-generating activities, such as technical support to farmers and small-scale enterprises to implement microprojects.

This component was revised during project restructuring to allow for the provision of livestock, equipment and materials in support of income generating activities. The reduction in cost was due to the changes in the US$ and the Euro values against the Tunisian Dinar.

3. Consolidation, protection and management of natural resources in project areas *(estimated component cost at appraisal was US$26.32 million, but revised at restructuring to US$14 million, and the actual cost was TND 27,106,567 or about US$10.9 million (an estimate is based on an exchange rate as of December 2017).* The aim of this component was to improve forest and rangeland natural resources in target areas by promoting participatory forest management and sustainable practices elaborated in the PDCs. The component had four sub-components: (i) Soil/water conservation works, such as financing small projects to prevent and mitigate soil erosion and improve soil moisture; (ii) Pastoral and silvo-pastoral improvements such as fodder plant seeding, forest clearing, and supporting users' groups; (iii) Plantation and forestry development focusing on participatory management, such as supporting the preparation and implementation of plans aimed at reducing pressure on the forests and providing additional incomes to communities; and (iv) Land consolidation operations to address issues of land tenure constraints by evaluating farm lands and facilitating plot swapping.

The substantial reduction in cost was due the changes in US$ and Euro, and Tunisian dinar (TND) values over the course of project implementation, very low inflation, and lower than expected cost of locally produced and purchased goods, works, and services.

4. Improvement of basic rural infrastructure (*estimated component cost at appraisal was US$20.98 million, it was revised to US$22.10 million at the restructuring, and the actual cost was TND 45,705,703 or about US$18.3 million (an estimate is based on an exchange rate as of December 2017*). The goal was to finance the construction and rehabilitation of rural roads, and individual and communal potable water systems.

The increased cost of the component was due to increased cost of work, especially in regards to the difficulties with finding sources of water, and due to expanded road works. After the project restructuring the unallocated project funds were used to finance these works.

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Project cost. The loan was denominated in *Euros.* The estimated total cost of the project at appraisal was equivalent to about US$57.16 million, and it was reduced to US$43 million during the restructuring. The actual total project cost was TND 87 million or about US$40.9 million. There were considerable shifts in currency values between the Euro and US dollar and the Euro and TND, resulting in the difference between the amount at approval and the amount disbursed.

Financing. The original IBRD financing was Euro30.1 million, US$41.60 million equivalent at the appraisal, which was reduced to US$33 million during the restructuring. At the project closing the Bank disbursed Euro26.42 million, equivalent to US$31.90 million. The communities' contribution was expected to be about US$6.32 million, which was reduced to US$4 million during the restructuring. By the project closing date, the participating communities had contributed US$3.46 million.

Borrower contribution. It was expected at appraisal that the Government of Tunisia's (GoT) contribution would be US$9.24 million. That amount was reduced at project restructuring in 2016 to US$6 million and, by the end of the project, the GoT had contributed US$5.53 million.

Dates. The project was approved on December 20, 2010 and became effective about six months later, on June 24, 2011, and closed on June 30, 2017 as planned at appraisal.

Restructuring. The project underwent a Level 2 restructuring on February 22, 2016 without a revision of the Project Development Objectives (PDOs). The changes mainly concerned a decrease of community contribution by 37% to US$4 million, an increase in IBRD's financing share of eligible expenses to 100 percent, a reallocation of funds between components, and changes in the indicators and baseline values in the project's Results Framework (RF). These changes resulted in no changes in the project's ambition and hence there was no justification for a split rating of outcomes.

3. Relevance of Objectives

Rationale

At the time of project preparation, the Republic of Tunisia was the fastest developing non-oil economy in the region with real GDP growing at an average of 5 percent annually from 1995 until 2008 (Country Systematic Diagnostic, World Bank 2015). The country had recovered quickly from the global crisis and its economic growth had accelerated in 2010. However, the growth was not inclusive, it was characterized by regional and social disparities, unequal access to opportunities and resources, and an overall persistent inequality that led to unrest and revolution, and the subsequent change of the Government in 2011. Regional disparities existed in terms of development and poverty level because coastal regions had been developing faster than hinterland areas. Disparities were especially evident in the Northwest and Northeast regions, where poverty in 2010 was more than three times higher than in the Central-East and Grand Tunis regions. Agriculture played a significant role as a source of employment and income in the Northwest, with the majority of the population engaged in agriculture and livestock husbandry. But the farms there were low in productivity and incomes were also low. In addition, pasture overgrazing due to unsustainable livestock management practices and deforestation had led to a severe degradation of the natural resources, which were crucial for the sustained livelihoods of local communities.

The project's objectives were aligned with the Government of Tunisia's development strategy. The project supported the GoT's 11th National Development Plan (2010-2014) in areas of economic growth and poverty reduction, as well as the transformation of agriculture through diversification and by focusing on high-value crops and skill intensive production. The project also aimed to support the implementation of national programs in soil and water conservation, and water management. The project's objectives remained highly relevant to the two pillars of the Government's 12th National Strategy approved in 2016. They were Pillar 4: "Tackling regional disparities and achieving the ambitions of internal regions by building economic infrastructure and supporting entrepreneurship in lagging regions"; and Pillar 5: "Promoting green growth for sustainable development, aims to ensure the sound utilization of natural resources, with emphasis on rationalizing water and energy consumption while promoting modern agricultural systems that ensure food security" (Country Partnership Framework, April 19, 2016).

The project supported the implementation of the World Bank's Country Partnership Strategy (CPS) for 2010-2013. The two pillars of the CPS 2010-2013 focused on reducing regional disparities by targeting areas lagging behind in their economic development which particularly affected vulnerable groups.. The Country Partnership Framework (CPD) FY2016-2020 has continued the WB's commitment to Tunisia in supporting the development of poor and lagging regions by building economic infrastructure and promoting entrepreneurship. That included improving food security and livelihoods, as well as advancing "green growth" through sustainable and rational natural resource management.

The project's development objectives (PDO) were to "(i) improve the socio-economic conditions of the rural population and (ii) promote better protection and management of natural resources in the project area". While this set of objectives was substantially relevant to Government policies and World Bank assistance strategies, the formulation of the objectives in terms of "improvement" and "promote" was not precise and represented a low level of ambition for the project's achievements.

With respect to precision, the Bank Guidance for the preparation of ICRs, states that an operation's objective should be stated as concisely as possible, indicate the primary target group with the change expected, and focus on outcomes. There can be little doubt that the PDO is imprecise without any reference to outcome changes expected for beneficiaries. In terms of low ambition, the expectation according to IEG's Guidelines is that a project occurring later in the Bank's engagement with the sector in a country should set relatively more challenging objectives than a project early in the engagement. This means that second, third and forth projects within a sector should include progressively more ambitious objectives over time compared with earlier projects.
Based on these criteria this Review rates the relevance of improving the socio-economic conditions of the rural population and promotion of better protection and management of natural resources as Modest. .

Rating
Modest

4. Achievement of Objectives (Efficacy)

Objective 1

Objective

To improve the socioeconomic conditions of the rural population in the project area

Rationale

The project's assumption was that using the community-based Integrated Participatory Approach (IPA) for local development based on the participatory preparation of Community Development Plans (*Plan de Développement Communautaire*, or PDCs), within a framework of the Annual Program Contracts (*Contrat Programme Annuel*, or CPAs) in close consultation with the local communities and regional and local authorities would contribute to the improvement of the socio economic conditions. The PDCs would reflect needs of the target communities for the improvement of their agricultural and pastoral production systems through better production techniques and practices, diversification of the livelihoods, and improved access to markets (PAD, p. 9). The project benefited 318,000 people in 67,000 households as planned at the appraisal. As noted in Section 3 of this Review, however, the objective of "improving the socioeconomic conditions of the rural population in the project area" was imprecise and set a low level of achievement for the project.

Outputs (based on information in Sections IIB and Annex 1 in the ICR):

People in target areas participated in preparing and implementing Community Development Plans

• The Project intended to work with Development Committees established under the previous PNO3 and convert them into Project Agricultural and Fisheries Development Associations (*Groupement de Développement Agricole et de la Pêche* or GDAPs). The project's goal was to help form and strengthen 85 GDAPs in 113 *imadas*. At closing, the project had worked with 87 GDAPs, which was more than planned at appraisal, and far exceeded a lower number set at the restructuring, reaching 77 percent against 75 percent planned at the appraisal, although this indicator was revised to 62 percent at the restructuring.
• At appraisal the project intended to ensure that at least half of the members of the GDAPs represent poor and other vulnerable groups. The ICR did not provide information on members' profiles in the targeted associations, indicating how many women, youth and other vulnerable groups were engaged in the GDAPs because this indicator was dropped at the restructuring because its measurement proved to be very difficult (Restructuring Paper, p. 16).
• The original intention as reflected in the results framework (RF) was to establish 15 experimental intensive partnerships involving governmental organizations and NGOs in PDC (Community Development Plans) preparation, financing and implementation, as well as using regional and local administrations for the purpose of validating the process and ensuring its functioning. However, no information was provided in the ICR on the related outputs or outcomes of this goal.
• The project facilitated the development of 548 Annual Contract Programs (CPAs), or 94 percent of all plans prepared and implemented by the GDAPs jointly with the Odesypano. This achievement exceeded the target established at appraisal to support 80 percent of prepared CPAs.
• The project raised 40 percent of the investment cost of the plans outside of the allocated project's financing which was covered by other development partners. Project beneficiaries contributed 10.3 percent to the cost of project investments, meeting the 10 percent target established at appraisal.

Production systems were diversified with increased yields, access to markets was improved and sales increased for all, including vulnerable groups

• The Project supported the implementation of 25 research programs, the establishment of 348 demonstration plots, and conducted more than 940 technical training sessions on various agricultural practices.
• The goal of the project was to increase land under fodder crops, olive trees and high value crops (measured with the land use change index) by 20 percent and to reduce land under wheat. In terms of results the ICR stated that "The area planted with wheat was reduced by 22 percent, while the area with olive trees increased by 88 percent and the area with fodder increased by 84 percent; yields increased as follows: 25 percent for wheat, 27 percent for olive trees, and between 24 percent and 41 percent for dairy production depending on the breed. The productivity increases recorded in the project area were on par or above the increases observed elsewhere in the country (for instance, only 14 percent for wheat nationwide during the same period). It is also important to note that this is in the context of consecutive droughts over the final two years of project implementation" (p. 12).
• The Project supported 863 income generation activities (AGRs) in apiculture, poultry, and small ruminants, compared with a target of 1,000. These livestock AGRs comprised about 88 percent of all supported micro projects. The major challenge for farmers was in accessing loans to finance their AGR's cost, and in the result of the restructuring, these AGRs were fully funded by the project. The ICR did not provide information whether the project met the social inclusion target for at least 25 percent of the financing activities to include vulnerable people (PAD, Results Framework, p. 38).
• The project disseminated 726 improved breeds and facilitated 24,500 artificial inseminations. The livestock yield index (specified in the RF of the PAD for cattle, sheep and goat) was expected to increase by at least 13 percent. According to the ICR, dairy production for pure breeds increased by 24 percent, and crossbreeds by 41 percent. Small ruminant productivity increased by 30.5 percent for sheep and 51.3 percent for goats. However, average annual milk production per cow was about 20 percent below the national average. This result could be explained by the underperformance of crossbreeds and local breeds (p. 33).
• There were four small rural agribusiness enterprises established instead of the 10 initially planned. The ICR does not provide information on whether these enterprises managed to enter into marketing agreements or if the project interventions helped the enterprises to increase sales and hence incomes. According to the ICR sales were expected to increase by 10 percent annually over the project period (page 34).
• The PNO4 intended to construct around 200 kilometers of feeder roads and rehabilitate around 580 km of larger rural roads to ensure that 89 percent (upgraded to 94 percent at the restructuring) of households in target areas had access to roads. At the project’s closing, 182 km of feeder roads had been built and 815 km had been rehabilitated, providing road access to 93 percent of the households in the target areas (baseline was 75 percent).
• It was estimated at appraisal that the project would support 570 (revised to 510 at the restructuring) water tanks and nine potable water connection systems. The expectation was that 83 percent of the households in the target areas would then have adequate access (less than 300 meters) to drinking water. According to the ICR, only 300 water points were installed, providing 74 percent of the households with adequate access to potable drinking water (maintaining the baseline at appraisal of 71 percent).

Outcomes:
The Project had a slow start because of political instability and the Tunisian Revolution. At closing, all 113 *imadas* involved in the project had been organized into GDAPs or informal Development Committees (CDs) with prepared and implemented PDCs.

Improved socioeconomic conditions of the rural population. This project intended to achieve at least a 122 percent in a composite index of socioeconomic indicators at the *imada* level. The ICR reported that at the project's closing the composite index had reached 124.7 percent compared with the baseline of 100 percent at the beginning of the project. It was an index using six variables with their respective weights and relevance to the expected project outcomes, namely employment, housing conditions and household durable goods, access to potable water, access to roads, access to basic services, such as health, education and electricity (PAD, p. 6). The index could not measure results attributed directly to the project's specific interventions. Indeed the ICR stated that it was not possible to separate the impacts of the project from those of parallel social and infrastructure investments by the Government. On the other hand the ICR noted that "Because Odesypano is the only development institution providing agricultural support in these remote areas, changes in these indices can be more directly attributed to the project (ICR, p. 13).

The ICR stated that "At project closure, the surveyed households who declared being satisfied with their incomes increased significantly for livestock production (reaching 62 percent) but slightly declined for crop production (to 41.5 percent), probably due to the last two years of poor rainfall" (paragraph 19).

Summary: There was limited evidence in the ICR of the project's impact on socioeconomic conditions. On the other hand, there was enough plausible evidence to conclude that the project's modest objective, namely "improved socioeconomic conditions of the rural population in the project area" was achieved. The achievement of this unambitious objective is therefore rated Substantial.

Rating
Substantial

Objective 2
Objective
To promote better protection and management of natural resources in the project area

Rationale
This objective was primarily pursued by promoting tree planting, improving pasture and rangeland, improving land use through soil and water conservation, and land consolidation for smallholder farmers with fragmented plots. By aiming only at an objective such as "promote better protection and management of natural resources" without any clarification of the nature of promotion or the meaning of better protection and management of natural resources, the project set a low bar for its achievement of results.

Outputs:

• Project interventions protected, as planned, 23.9 percent of erosion-sensitive land. Arable land under sustainable management and physically protected against erosion with gabions and other soil conservation

means reached 37 percent against a target of 38 percent and up from a baseline of 31 percent.
• The project upgraded and improved the management of 12,927 ha of pastures. The percentage of pastures upgraded and managed according to conservation practices totaled 14.7 percent, compared with a target of 15 percent and a baseline of 11.3 percent.
• Plantations of olive and other trees covered 14.6 percent of the land against a target of 13.5 percent and a baseline of 10.2 percent.
• More than 12,000 ha of highly fragmented land was consolidated as planned in order to achieve better protection and management of natural resources.

Outcome:

The PNO4 produced intended results in tree planting, re-seeding pastures, and soil protection in the target areas. Based on project interventions, 37.4 percent of arable land is now under sustainable land and water management practices, against a target of 37.8 percent and a baseline of 30.9 percent. Perennial plantations and improved pastures cover 33.1 percent of arable land against a target of 33.5 percent and a baseline of 30.8 percent.

Summary: This Review concluded that there was adequate evidence in the ICR to verify that the project did "promote better protection and management of natural resources in the project area". The achievement of this unambitious objective is therefore rated Substantial.

Rating
Substantial

Rationale
Based on the evidence presented the efficacy of both Objectives 1 and 2 in the PDO was rated substantial. Hence the overall efficacy of this project is rated Substantial.

Overall Efficacy Rating
Substantial

5. Efficiency

At Appraisal
Economic analyses of the project at appraisal showed an estimated Economic Rate of Return (ERR) for the project of 17 percent over an assumed project lifetime of 20 years. The PAD indicated that "working assumptions for the calculation of benefits (farmers' adoption rates of improved technical packages over time,

yield increases and prices according to crops, etc.) were derived from the long and practical experience of the Odesypano's regional offices in similar situations" (paragraph 46). The analyses demonstrated that the ERR was likely to be more sensitive to benefit shortfalls than to comparable cost overruns. Thus, if the benefits were to fall short by 15 percent, the ERR would probably decline from 17 to 14 percent.

At Project's Closing

According to the ICR the project achieved an ERR of 20 percent and generated a net present value (assuming a discount rate of 10 percent) TND 141 million over 20 years, compared with the investment cost for the project of TND 87 million. According to the ICR Team's explanation the ex post rate of return analysis in the ICR used the same methodology as in ex ante analysis in the PAD. Incremental benefits were calculated based on crop budgets developed for nine crops in both the Project areas of consolidation and extension, and for different agro-ecological zones. This is indeed a simplified way of presenting the local cropping pattern but this is the approach adopted ex-ante at appraisal and it would be difficult to prepare crop budgets and models for all the different crop categories. Nevertheless, the analysis was comprehensive because these crops were selected as the most representative and most common within the cropping pattern, covering quite a large range of agricultural products, including the following four categories: cereals (wheat and barley – close to half of the arable land), leguminous (broad and fava beans, chickpeas and lentils), fodder, olive trees and vegetable gardening. The ICR Team noted that that benefits from income-generating micro-projects and from four micro-enterprises were not estimated due to their late start in 2015 because sales and profit data from the income-generating activities and from the rural enterprises were not even available. Hence there was no basis for an analysis of those activities at the end of the project. The ICR Team recognized that the ICR was not explicit on project costs used for the economic analysis. It was confirmed that all project costs were included as the ex-ante economic analysis. Costs included Government's and beneficiaries' contributions. Estimates of the Government's and beneficiaries' contributions (TND13.5M and TND8.4M respectively) were drawn from PNO4 final evaluation report.

Benefit/Cost Analysis. The ICR also undertook an additional benefit/cost analysis, not estimated at the appraisal, of such areas as rural infrastructure, but the data used to calculate the B/C ratio of 1.6 did not include benefits such as training and capacity building, preservation of diversity and mitigation of soil erosion because of the difficulties of measuring their benefits (paragraph 24 and Annex 4, paragraph 13). It was implicit that discount rate used for the B/C analysis was10% (mentioned in paragraph 24 of the ICR).

Administrative Costs and Unit Costs. The project experienced numerous delays during the project's initial stages due to political and social instability after the Tunisian Revolution in 2011, as well as because of various technical issues. There were difficulties in digging bore holes, construction of household cisterns, and pasture restoration. In addition, the rehabilitation of roads took longer than expected due to contractual issues. The ICR stated that, despite delays in implementing these investments all the project's activities were completed before the original project closing date. There were also no increases in investment or administrative costs associated with these implementation problems. But basis for this assertion was the fact that the original closing date was not changed (paragraph 26). The ICR also stated that there were cost efficiencies in terms of unit costs when compared with "similar types of activities in Tunisia". There were, however, no quantitative data in the ICR to back up this statement on cost-effectiveness in paragraph 23.

Summary. On the basis of the evidence in the ICR and the clarifications on the methodology used in the economic analysis received from the ICR Team this Review has assessed the project's overall efficiency as Substantial/

Efficiency Rating
Substantial

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	✓	17.00	100.00 ☐Not Applicable
ICR Estimate	✓	20.00	100.00 ☐Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

The project objectives, while broadly relevant to the Government of Tunisia's policies and the Bank's country partnership strategies, lacked precision and had low level of ambition. The relevance of the project's objectives was therefore rated as Modest. The project produced most of its intended outputs and generated outcomes that substantially achieved the low level of ambition of the project's objectives; consequently the project's efficacy was rated substantial. The project's efficiency was rated also rated substantial. Therefore, overall there were moderate shortcomings in this project's achievements and hence this Review rates its outcome as Moderately Satisfactory.

a. Outcome Rating
Moderately Satisfactory

7. Risk to Development Outcome

Earlier projects in this series were reported in a Project Performance Assessment Report (PPAR) dated November 2013 to have had sustainability challenges. There is a high risk that institutions established and supported by this project may also not be sustained. The Odesypano at the national level has played a crucial role in supporting grassroot organizations, but it has been experiencing a loss of highly qualified staff due to retirement. Another risk to the project's development outcome is that project beneficiaries for various reasons will discontinue applying adopted technologies, thus affecting production and productivity. However, the technologies transferred were not complex, were affordable, and were locally researched and tested, all of which should contribute to their sustainability. The producers' associations (GDAPs) have been established as formal organizations to support rural development activities. They function as agricultural cooperatives but also can be used for various community activities, for formulation of local development plans. As such organizations with a broad mandate, they would go through further development and narrowing the focus to function as organizations owned and managed by their members.

The ICR also highlighted government policy as a risk to maintaining sustainable management of natural resources and diversification of livelihoods. The GoT promotes wheat production for self-sufficiency which, together with state subsidies, might lead to increases in wheat production and plots devoted to wheat, at the expense of higher value crops and a more diversified agricultural economy.

8. Assessment of Bank Performance

a. Quality-at-Entry

The Fourth Northwest Mountainous and Forested Areas Development Project followed three previous operations, which started with a Northwest Rural Development Project in 1982. The PNO4 in terms of its objectives and design was similar to the previous operation – The Third Northwest Mountainous and Forested Areas Development Project (PNO3). The major difference was an additional focus on fostering partnerships at the local and regional levels to strengthen the Integrated Participatory Approach in the development and implementation of the PDCs. One of the considered options at the inception stage was to design the Project as a Repeater Project, but it was dropped due to a reluctance by the Government to commit to this right after the completion of PNO3.

The design considered lessons learned from the PNO3 and other previous and ongoing WB operations in-country. The appraisal team also drew on IEG's evaluation of Community-Based and Community-Driven Development conducted in 2013. However, the Project's Results Framework in the PAD did not provide a logical results chain showing how project inputs and intermediate outcomes resulted in final outcomes. The project's design was based on an assumption that communities organized into producers' associations (GDAPs) would undertake participatory planning to create the PDCs, which in turn would become a vision for economic development and improved resource management. The project was to form and strengthen GDAPs to ensure that they could provide various services to their members – farmers and farmers' groups -- beyond the life of the project. The expected services included linking farmers to advisory services, inputs, markets, and financial institutions. The PNO4 provided support to Odesypano, the implementing agency, and to local government agencies to build their capacity to work with the GDAPs. Institutional strengthening elements of the project were not only critical for the adoption of the Integrated Participatory Approach and the implementation of the initiatives, but also for the sustainability of the results and the institutions themselves. However, only about 7 percent of the IBRD resources were allocated to these activities at appraisal and even less was spent by the time of the project's closing. Insufficient consideration of the institutional aspects most likely contributed to a high risk to the institutional sustainability at the local and national level.

Another weakness of the project's design was the formulation of objectives. The first part of the PDO aimed to "improve socio-economic conditions" which was translated in the project’s design as advisory services, livestock development, small-scale irrigation development in the project area, and income-generation activities. The second part of the PDO focused on soil, water, pasture and forest resource improvements to "promote better protection and management of natural resources in the project area". Neither of these objectives was definitive and at best they were unambitious. At the same time it was a very ambitious plan that, within the project’s life with no previous experience and limited resources, producers’ groups in 113 *imadas*, as well as local and national organizations, would be able to undertake such complex ecosystem-based planning.

Irrespective of the project’s complexity, the project’s activities listed in the PAD did not include any reference to the improvement of social conditions such as housing, access to potable water, basic education and health services which were all included in the composite index of socioeconomic indicators used as an indicator of the project’s achievement of improved socioeconomic conditions in the rural population.

The PDCs implementation envisaged multiple activities, including research, capacity building, providing bulls for artificial insemination, and rehabilitating small-scale irrigation infrastructure. Only about 10 percent of the total IBRD funding was allocated for all activities in this component. In the restructuring, this component had to be redesigned and funds reallocated to finance microprojects at a 100 percent rate due to the low response from local financing institutions. The rural enterprises pilot, which was expected to link 10 farmer groups to markets, also experienced difficulties accessing credit from local financing institutions. The previous project – PNO3 – had a similar experience, with a very low response from credit institutions to match project financing. That lesson was not adequately reflected in the PNO4 design. The PNO4 did not provide sufficient support to the commercialization of agriculture and improved sales, which were factors crucial to achieving higher incomes and improved socio-economic conditions.
As noted already, the compound index used to measure livelihood improvement in target communities was not fully linked to project activities and was also difficult to measure, thus affecting the understanding and evaluation of the interventions.

Quality-at-Entry Rating
Moderately Unsatisfactory

b. Quality of supervision
The Bank team provided adequate support to Project implementation with joint missions with the Second Natural Resource Management Project of two to three times a year. The staff of the UN Food and Agriculture Organization (FAO) also provided ongoing technical advice, and its country office assisted with financial management and procurement. However, the supervision team did not take advantage of the opportunity of the restructuring in 2016 to address issues of key indicators and baseline data. According to the ICR, based on IEG’s PPAR dated November 2013 and the FY16 portfolio review for this project, the World Bank team could have revised the Results Framework and helped Odesypano strengthen its capacity for impact analysis (paragraph 21).

The Project's restructuring 18 months before the closing date addressed financing issues of the income generation projects, did not ensure the project's sustainability because the project's local and national institutions remained weak.

The overall Bank performance is rated Moderately Satisfactory. This is in accordance with the IEG/OPCS harmonized guidelines specifying that when two aspects of Bank performance are split the overall performance rating follows the outcome rating.

Quality of Supervision Rating

Moderately Satisfactory

Overall Bank Performance Rating

Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The Project's M&E system included 23 PDO and intermediate outcome indicators. It was to be implemented by a special unit within the Odesypano, staffed with three specialists and equipped with a GIS to track changes in land use and natural resource management. There were also field agents in charge of collecting and transferring data to this M&E unit. As explained in this Review's assessment of the project's quality at entry the PDO indicators defined in the results framework to measure whether or not the PDO was achieved had significant shortcomings.

The M&E framework was simply not adequate for measuring the project's results. Basic data for calculating the key composite index of socio-economic conditions of the targeted beneficiaries were difficult to collect and there were obstacles in attributing changes in socio-economic conditions to the project. There was no methodology for assessing quality safeguards installed to assess the performance of the M&E system, no control group, and no verification of the statistical validity of the data generated.

One of the lessons learned from the IEG's PPAR of Community-Based Development in 2013 was to employ appropriate indicators to measure the impacts and effectiveness of natural resource management interventions. However, PNO4 did not follow that lesson in restructuring its indicators, nor did it measure impacts of the project on soil erosion and fertility, groundwater recharge, and dam siltation.

b. M&E Implementation

The Results Framework was revised as part of the project's restructuring in 2016, i.e. 18 months before the project closing date. Monitoring was not adequate until 2012, when baseline data were corrected, and during the restructuring when the Results Framework and indicators were revised. According to the ICR "While Odesypano performed well in data collection and reporting, data quality and project impact analysis were not emphasized". This weakness was based on the ICR's conclusion that "Quality control was not in place to check the data collection methodology and statistical validity". Among the M&E shortcomings noted in the ICR was that the project failed to monitor properly some key data that were available on farmers' production costs and earnings. Nor did the M&E system record the number of farmers who adopted project-supported technologies (paragraph 40).

c. M&E Utilization

The data collected and generated by the Odesypano were not effectively analyzed to measure outcomes. It was mostly used for tracking activities' progress and revealing delays and bottlenecks in implementation.

M&E Quality Rating

Modest

10. Other Issues

a. Safeguards

Environmental. The project was classified under OP 4.00 (Piloting Use of Country Systems), with Environmental Assessment (OP/BP 4.01), Forests (OP/BP 4.36), and Involuntary Resettlement (OP/BP 4.12) triggered. A Safeguard Diagnostic Review was conducted to assess environmental impacts, gaps, and country policies and legislation to monitor and mitigate any possible negative consequences.
The project complied with World Bank requirements, and the Odesypano screened all subproject activities and reported on compliance and application of mitigation measures (ICR, paragraph 42).
The ICR Team noted, however, that project ratings during implementation were downgraded to Moderately Satisfactory because of delays in establishing a strict protocol for sub-projects screening, review and monitoring. In response the PIU recruited additional staff and independent consultants to separate the functions of preparing and validating environmental screening to ensure that the expected mitigation measures were fully integrated into the bidding documents for investments. The PIU also complied with proper consultation on and disclosure of the environmental screening forms and also properly document and report environmental screening and the application of mitigation measures in progress reports. According to the ICR Team action on all these issues were fully resolved shortly after the mid-term review.

The ICR Team also explained that on compliance with OP/BP4.12, the project's approach to land acquisition for infrastructure investments and for the smallholder farmer land consolidation operation was participatory, transparent and non-coercive. The project was advised to prioritize land transfers where no land ownership issues were observed (landowner absentees or inheritance issues). The corresponding rating during implementation was downgraded due to staffing and reporting issues. The project was declared fully compliant shortly after the mid-term review, especially after the PIU managed to achieve formal registration of all voluntary land transfers with the relevant local or regional administrations.

b. Fiduciary Compliance

Financial Management:
The Project established sufficient mechanisms and procedures for effective financial management and accountability. The ICR reported on several ineligible expenditures flagged by the external auditors, when the Statements of Expenditures were not fully documented. These cases were addressed, funds reimbursed and issues were resolved by the implementing agency in a timely fashion (paragraph 42).

Procurement:
The ICR reported procurement standards used by the implementing agency were satisfactory (paragraph 42).

c. Unintended impacts (Positive or Negative)

The project generated various social benefits, especially for women-farmers through targeting preferred by them AGRs (eg. poultry production).

d. Other

---

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Moderately Satisfactory	Moderately Satisfactory	---
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	.
Quality of M&E	Modest	Modest	---
Quality of ICR		Substantial	---

12. Lessons

The ICR presented four lessons. They had some shortcomings because they were either not based on evidence in the ICR or were recommendations rather than lessons. The following three potential lessons summarized below are stimulated by the lessons presented in the ICR.

1. Mitigating and preventing the degradation of natural resources combined with investments in livelihood improvements stimulates community interest in improved natural resource management. This lesson did not come out clearly from the ICR because the ICR did not detail how the Community Development Plans (PDCs) were developed by communities, how investments were prioritized, and most importantly what was the linkage established between livelihood improvement, economic activities and natural resources preservation and management. Without this more detailed information on arrangements and processes adopted by the PDCs and the provision of incentives for the PDCs to improve natural resource management, the lesson is not likely to be replicated.

2. A project aimed at improving livelihoods needs to have technical support to develop appropriate flexible financing products and instruments to link smallholder farmers to credit resources. The project failed to link smallholder farmers to financing institutions due to the political instability in country at the time of implementation, but also because of a lack of appropriate financing instruments that were affordable and accessible for smallholders. The ICR suggested that if technical assistance had been provided under the project to advance development of appropriate financing instruments for smallholder farmers the outcomes would have been better. However, there was no evidence in the ICR on which to base this lesson and, consequently, this is more a recommendation than a lesson.

3. Community-driven development projects can contribute to decentralization by promoting participatory development initiatives. Lessons from the PNO4 on defining priorities in a participatory manner and allocating budgets to these priorities have been utilized already in many countries. The ICR suggested a lesson that promoting decentralization reforms, such as the establishment of innovative funding mechanisms using communal investment funds (with various funding windows ranging from social objectives, infrastructure development, to economic empowerment), were proven to be useful in this project as also already evidenced in some countries in Africa.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR presented information on project implementation such as the challenges faced and how they were addressed, as well as a listing of the results achieved compared with targets. It contained a reconstruction of the Theory of Change and interpreted assumptions made at appraisal. The ICR also provided a candid explanation of the project's outcomes, the measurement of outcomes, and problems encountered in implementing the income generation activities. However, the ICR would have benefited from describing and assessing key institutional aspects of the project namely the implementation of the Integrated Participatory Approach (IPA) as well as how the Community Development Plans (PDCs) were designed on a participative basis. Annex 3 was incomplete because it did not provide information on appraisal and actual project costs by components but, at IEG's request, the ICR Team provided this information. The discussion of safeguards compliance in the ICR had shortcomings but here also the ICR Team provided clarifications. Another key shortcoming was that the explanation of the economic rate of return (ERR) analysis in the ICR had shortcomings because its explanation of the derivation of the project's benefits and the costs used in the analysis was incomplete. Again, at IEG's request, the ICR Team provided information that clarified the ICR's assessment of the ex poste ERR for the project. Given the clarifications provided by the ICR Team before this ICR Review was completed the quality of the ICR is rated substantial but marginally so.

a. Quality of ICR Rating

Substantial