



1. Project Data

Project ID P110588	Project Name Sudan Gum Arabic Export Marketing Projec		
Country Sudan	Practice Area(Lead) Agriculture		
L/C/TF Number(s) COFN-C1320,TF-94764	Closing Date (Original) 30-Jun-2011	Total Project Cost (USD) 10,000,000.00	
Bank Approval Date 10-Jul-2009	Closing Date (Actual) 31-May-2013		
	IBRD/IDA (USD)	Grants (USD)	
Original Commitment	7,000,000.00	7,000,000.00	
Revised Commitment	6,996,637.99	6,996,637.99	
Actual	6,996,637.99	6,996,637.99	
Sector(s) Crops(64%):Public Administration - Agriculture, Fishing & Forestry(36%)			
Theme(s) Rural policies and institutions(28%):Export development and competitiveness(28%):Rural markets(22%):Other financial and private sector development(22%)			
Prepared by Hassan Wally	Reviewed by Lauren Kelly	ICR Review Coordinator Christopher David Nelson	Group IEGSD (Unit 4)

2. Project Objectives and Components

a. Objectives

The Project Development Objective (PDO) as articulated in the Final Project Proposal (FPP, p. 12) was to:

"improve gum arabic production and profitability for small-scale producers and combat environmental degradation."

The Project Development Objective (PDO) as articulated in the Multi-Donor Trust Fund for the Sudan Grant Agreement was to:

"help increase the income of small-scale gum arabic in selected areas of the Receptient's gum arabic belt through improved performance of



gum arabic production and marketing systems."

This Review will assess the project outcomes against the objectives as stated in the Trust Fund Grant agreement.

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

No

- c. Components

The project had three components:

1. Support to Market Decontrol and Sector Rehabilitation (appraisal cost: US\$1.70 million, actual cost: US\$0.79 million). This component would finance studies to identify barriers to domestic trade and investments; analyze the world demand structure; and determine new market opportunities. It would also finance the establishment of a gum arabic market information system and a dedicated website for the Sudanese gum arabic sector with a one stop information market place. Matching grants would be provided to domestic processors and exporters to identify new markets and process gum arabic products with higher added value. A gum arabic promotion plan would be prepared; funds would be earmarked to implement gum arabic generic promotion activities abroad.

2. Support to Gum Arabic Producers Associations (appraisal cost: US\$5.52 million, actual cost: US\$5.59 million). This component aimed to increase small-scale producers' revenues from gum Arabic cultivation. It would finance capacity building activities to strengthen the management, savings, credit and marketing skills of GAPAs. It would also provide grants to supplement revolving savings and credit schemes set up and managed by the GAPAs. In view of limited funds and the need to rapidly show impact and results, this component would be implemented in four Localities: Damazin and Wadenneyel, respectively in the Blue Nile and Sinnar states and Um Rwaba and En Nuhud in North Kordofan state. These localities were selected using the following criteria: (a) potential for gum arabic production, (b) presence of registered gum producers associations, and (c) distance between localities in order to reduce implementation costs.

3. Project Management and Supervision (appraisal cost: US\$ 2.77 million, actual cost: US\$3.29 million). The Gum Arabic Commodity Board would be responsible for the overall guidance of the project implementation. Day-to-day implementation would be the responsibility of Forest National Corporation, using the institution's existing structure. At the headquarters' level, Forest National Corporation would appoint a Project Coordinator (PC), as well as a Community Mobilization, Procurement and Financial Management officers from its staff for the duration of the project. The Project Coordinator would act as secretariat of the GACB. The project would recruit a Monitoring and Evaluation Officer and a Training Officer on competitive basis. Locality Forest National Corporation offices in the four selected localities would implement the activities under component 2. To support project implementation, Forest National Corporation would assign from its staff one Community Mobilization, one financial management and one procurement officer per locality. The project would recruit two Marketing specialists - each would cover two adjacent localities.

- d. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Project Cost. The total project cost was expected to be US\$10.00 million. Actual cost as reported by the ICR (Annex 1) was US\$9.67 million.

Financing. The project was to be financed through a Multi-donor Trust Fund for North Sudan Grant worth US\$7.00 million and co-financed through an International Fund for Agricultural development (IFAD) fund worth US\$3.00 million. The use of Grant and IFAD sources of funds was in a sequential order to allow continuity in project design and support for a longer implementation period. Actual amounts disbursed according to the ICR (p. v) were US\$6.99 million and US\$2.84 million for the Multi-donor Trust Fund for North Sudan Grant and IFAD, respectively.

Borrower Contribution. The PAD (p. 17) stated that the Government would provide US\$3.00 million. However, the project did not receive any counterpart contribution from the government. All project expenses were covered from the Multi Donor Trust fund for North Sudan allocations and IFAD cofinancing. In a further communication during the preparation of this review, the project team explained that the project did not finance taxes and the Government took on the cost of the PCU in part of the last year of the project, however, the amount of Government resources was not quantified.



Dates. The Multi donor Trust Fund for North Sudan Grant was expected to close on June 30, 2011, however it closed on May 31, 2013 (23 months later than expected). The IFAD co-financing was expected to be disbursed during 2012/2013, however, these funds were utilized between mid-2013 and June 30, 2015. The project was restructured 3 times all were Level 2 restructurings as follows:

1. On June 23, 2011 (amount disbursed US\$3.80 million) in order to extend the project closing date from June 30, 2011 to June 30, 2012; and to revise the results framework.
2. On June 14, 2012 (amount disbursed US\$6.41 million) in order to extend the project closing date from June 30, 2012 to December 31, 2012.
3. On November 20, 2012 (amount disbursed US\$6.83 million) in order to extend the project closing date from December 31, 2012 to May 31, 2013.

The Midterm Review was scheduled for September 20, 2011, however, it was never carried out. The ICR (para 91) stated that a Mid-term Review was discussed, but not held because "it was deemed too close to project closure."

3. Relevance of Objectives & Design

a. Relevance of Objectives

High.

Sudan is the world's largest producer of gum arabic which is also one of its four important agricultural export commodities along with sesame, livestock and cotton. Gum Arabic is primarily produced by small-scale farmers in the traditional rain-fed farming areas, both from natural forests, as well as from small plantations. It represents an income diversification strategy to mitigate crop failure and a way to meet household's cash needs. It is estimated that around one million households depend partly on supplementary revenues generated from gum arabic production. For these populations - among the poorest and most vulnerable in Sudan - gum arabic contributes up to 50% of their total cash earnings. From an environmental perspective, gum arabic has a positive impact on the environment as it maintains natural forests; and Acacia is a leguminous plant that fixes atmospheric nitrogen, thus improving soil fertility; and its long lateral root system reduces water runoffs and wind erosion. However, gum arabic farmers face a number of constraints including: a negative policy environment, absence and/or poor access to formal rural financing services, poor marketing, poor access to drinking water in gum arabic production areas; and poor quality of gum arabic sold by farmers.

At appraisal objectives were highly relevant to the country's development priorities. Gum arabic represented a strategic agricultural commodity and objectives were aligned with Government strategy to expand and diversify its export base, which remains highly reliant on oil. Objectives were in line with the Government's Executive Program for Agricultural Revival which was launched in April 2008. Objective were also in line with World Bank's findings and recommendations published in the 2007 Policy note titled: *Export Marketing of Gum Arabic from Sudan*. Objectives were also highly relevant to IFAD and MDTF-N objectives to support economic growth and poverty reduction among poor and conflict affected populations. The project responded directly to the objectives of the IFAD country strategy and MDTF-N objectives through its target group of beneficiaries and focus on rural economic growth and market development. The project was also complementary to other initiatives within the MDTF-N agricultural portfolio – including the MDTF-N financed Improving Livestock Production and Marketing Project.

At project completion objectives continue to be highly relevant to the country's development priorities. According to the World Bank's Interim Strategy Note for the Republic of Sudan (FY14-FY15) the Government of Sudan aims to increase exports of gum arabic among other agricultural products. The ISN (p. 22) stated that "the Bank will also support the extension of a successful MDTF-NS Gum Arabic sector project with additional financing from IFAD."

It is worth noting that the PDO stated in the Final Project Paper included production, productivity and environmental degradation which is more comprehensive compared to the PDO stated in the Multi-Donor Trust Fund for the Sudan Grant Agreement.

Rating

High

b. Relevance of Design

Substantial.

Design included a clear and focused statement of objectives. The Results Frame work did not provide clear links between project inputs, outputs and expected outcomes. Nevertheless, the detailed project description (PAD, Annex 2) provided good coverage of these details. To



achieve the stated objectives, design featured a dual focus approach on sector reform combined with interventions designed to address issues around production, marketing and access to finance. Activities supported by the project were relevant, however, there appears to be a sequencing challenge between Component 1 and Component 2, ideally the studies supported under Component 1 should have been completed prior to the investment component. Also, certain elements of project design were relatively complex given the capacity of the implementing agency and country context. For example, under the second component the project aimed to support gum arabic producer associations through a matching grant mechanism for productive investments and revolving credit schemes. While the choice of matching grants was relevant to the development objective, the implementing agency had limited experience in administering micro-credit to gum arabic producer associations. This required the development of detailed operational procedures, modalities and testing. Also, the relevance of some activities under component 1 were questionable given the government-adopted policy reforms that were enacted prior to the project approval. Activities to support improved production of gum arabic were not clear. Participants of the stakeholders' workshop at project completion highlighted the importance of addressing tenure issues; which are central to reform efforts within the sector and critical to sustain improvements in productivity and income over time. However, this might have been beyond the scope and timeframe of this project.

Rating
Substantial

4. Achievement of Objectives (Efficacy)

Objective 1

Objective

PDO: help increase the income of small-scale gum Arabic in selected areas of the Receptient's gum arabic belt through improved performance of gum arabic production and marketing systems

Rationale

Outputs

- To support policy reform the project supported conducting three studies: Gum Arabic Value Chain Analysis (2011); World Demand Structure and Market for Sudanese Gum Arabic (2012); and Gum Arabic Auction Markets and Marketing Information Systems (2011). All studies were contracted to consultants and firms with international experience and were completed and approved by the project technical committee.
- Matching grants were awarded to conduct six specialized studies for strengthening gum arabic quality, marketing and promotion. The studies focused on the following topics: Promotion and Utilization of Gum Arabic as a Functional Ingredient in the Local Food Industry, Variation in gum arabic viscosity and its potential effect on grading and marketing enhancement of gum Arabic, Development of a mechanized gum tapping tool, Establishment of a network system for local gum arabic markets, Inter and intra species grafting of Acacia Senegal; and Gum arabic quality control and efforts to improve marketing and promotion of gum Arabic. Studies were disseminated through national workshops and events.
- A study on the design of the market information system was completed in 2013 and the basic architecture of the system was developed and launched online in 2015, however, by project completion the market information system was not functional as no price, production or other data was collected or disseminated through the system.
- The project supported a communication and media strategy to promote gum arabic. This strategy was put into use through the production of communication and media materials.
- The project supported 236 GAPAs (Target: 132) of which 129 received seasonal and micro-finance support, 51 received training and 56 received matching grants. The 56 matching grants financed tractors (23 grants), water reservoirs (15 grants), gum stores (13 grants), *hafirs* (underground rainwater storage structures – 2 grants), and artisan wells (3 grants). GAPA Membership increased from an average of 120 members per GAPA in 2011 to 189 in 2014 compared an average of 83 members for non-beneficiary GAPAs in 2014. The total number of individual beneficiaries within participating GAPAs was estimated by the Government ICR at 17,080 for microfinance, 5,315 matching grants and 1,500 for training and capacity building.
- 1,152 of GAPA's executive officers and GA Union members were trained in marketing, credit, financial management and business administration. The project also provide financing to train 28 extension cadres as a training of trainers exercise in community organizational skills, credit, marketing



and gender mainstreaming.

- Project funds were used to build the capacity of the Forest National Corporation to expand training support to producers the project financed the construction and equipping of 9 training centers, 9 offices, 7 rest houses and 11 tree nurseries which are completed, operational and functioning. However the MDTF-N evaluation pointed out that one nursery was producing fruit tree seedlings rather than Acacia seedlings.

Outcome

Achievement of the PDO (*to increase the income of small-scale gum Arabic in selected areas of the Receptient's gum arabic belt*) was to be achieved through two inter-related elements: improved gum arabic production and improved marketing of gum arabic among small scale producers targeted by the project. Direct project beneficiaries were estimated by the Government ICR to be 17,080 while indirect beneficiaries according to the ICR (para 57) were estimated at 175,000 (although it was unclear how this figure was estimated). There was considerable evidence provided in the ICR and the final impact assessment that the project had a positive impact on the incomes of small-scale gum arabic producers-which was the core project objective.

- **Increased income.** The results showed that incomes among gum arabic producers rose across the board among both project and non-project beneficiaries during implementation due to liberalization in the sector combined with a consistent and gradual increase in producer prices during project implementation as producers were no longer required to sell at fixed prices to the Gum Arabic Company and taxes and fees were reduced as a result of policy reforms prior to project approval. As a result both control and project beneficiary income increased. Analysis of the baseline survey (2011) and end of project survey (2014) in the impact assessment indicated that project supported small-producers achieved a 65% increase in gum arabic income. However, the net increase in incomes among direct project beneficiaries after discounting the general rise in income for all gum arabic producers showed the increase was approximately 21% in real terms compared to the original target of 20%. Change in income of small-scale gum arabic producers was assessed through a beneficiary household income survey. The survey sample included 40 GAPAs selected randomly in eight localities covered by the project representing about 20% out of 194 GAPAs; and a total of 150 respondents representing GAPAs members/beneficiaries who were also randomly selected and proportionally from the 40 GAPAs. For the control group, the number of the selected participating GAPAs for each localities determined number of the non-participating GAPAs to be taken i.e., 1-4 participating GAPAs one non participating GAPA was selected, 5 or more 2 non participating GAPAs were selected, hence, the control group contained 13 non-participating GAPAs. Likewise total of 100 respondents are selected randomly to represent the non-members. The data collection methods and survey methodology were robust and the derived results seem credible. While the survey methodology appear generally robust, it was unclear whether the randomly selected sample of GAPAs included a mix of these that received microfinancing, training and matching grants.

- **Improved gum arabic production.** The project impact assessment study (p. 24) stated that with project support extension officers delivered improved production technologies and educated the small producers consequently increasing the crop productivity as well as adoption of new techniques for gum arabic cleaning, grading and packing. The same study (p. 30) reported that the total gum arabic production for the 40 GAPAs under survey increased from 546 tons in 2011 to 1623 tons in 2014 or by 197%. However, the study did not report on productivity for a control group over the same time period. Project activities might have positively impacted production in project areas, however, (as discussed above) improvement in the price of gum arabic was an important factor that encouraged harvesting activities. Overall the ICR did not provide a clear picture on what elements of gum arabic production improved as a result of project support, for example, better tree management and/or improved harvesting techniques. The project financed matching grants investments in tractors and water points which enabled GAPA members to organize transportation of both labor and water to the gum arabic fields, hence facilitating harvest activities from trees. The ICR (para 49) stated that income increments were a result to increased volume of gum arabic production. However, the ICR provided no figures on the gum arabic volumes before and after project intervention. The project also made efforts on restocking gum arabic trees by supporting nurseries, however, the impact of planting any new gum trees was beyond the project time frame; since Acacia trees mature over a five year period, therefore, any increase in gum production in the project period was due to increased utilization of existing trees within the project coverage area.

- **Improved marketing among small scale producers targeted by the project.** In 2014 the baseline survey data show that 62% of gum arabic producers (project beneficiaries) were engaged in collective marketing compared 8.1% in 2010. The same survey showed that by 2014, 71% of respondents indicated that gum Arabic price was profitable compared with 3.5% in 2010. Also, project beneficiaries received higher prices for their



gum arabic produce compared to non-beneficiaries, for example, in 2014 project beneficiaries received 71% of the Free on Board (FOB) price (US\$105 out of US\$148) compared with the control group who received 59% (US\$87 out of a FOB price of 148) and 2010 baseline data showed that farmers received on average 42% of the FOB price (US\$25 out of a FOB price of US\$58). It is plausible to attribute that higher prices to project beneficiaries was due to project efforts in collective marketing and higher quality of produce (ICR, para 62). However, the gum arabic market information system (GAMIS) supported by the project was not fully established and according to the ICR (para 71) "there remains significant uncertainty as to whether it will be fully functional or operational." While the ICR (p. 28) reported that the project funded studies were disseminated through national workshops and events, it remains unclear whether the results/recommendations of these studies were utilized. The project provided training for GAPAs which allowed more effective collective action on marketing; this combined with the project's matching grant investments in storage and transport enabled GAPAs to sell their gum arabic produce in bulk at a time when prices were highest. Also, project investments in savings and credit systems helped individual gum arabic producers to access credit and reduce their reliance on the *sheil* system (an informal agricultural credit that provides cash loans to producers to be repaid in kind at an agreed upon price set at the time of the loan. However, *sheil* price is typically much lower than the eventual market price), which in turn increased the amount of gum marketed directly rather than transferred as repayment to moneylenders. According to the ICR (para 52, table 3) by 2014, 188 GAPAs had savings and a credit system compared with only 5 GAPAs in 2010. However, it is not clear how many small-scale gum arabic producers utilized the GAPA credit system. Also, no information was available on repayment rate since the indicator to assess this was dropped at restructuring.

Rating
Substantial

5. Efficiency

Economic and Financial Analysis

ex ante

- The Final Project Proposal did not include any detailed economic and financial analysis and because the project was prepared under OP8.0, no ex ante net present value (NPV) or economic or financial rates of return were calculated. Instead the FPP presented a basic analysis that reflected assumptions to show that the reform of gum arabic marketing combined with basic support to gum producers could have a tremendous impact in terms of poverty reduction, and development of a non-oil based economic.

ex post

- The ICR did not include an economic or financial analysis of project activities or quantitative estimate.
- **Producer profitability.** Detailed gross margin analysis was not undertaken due to data constraints. Project surveys provided data on the income changes and allowed for comparison between project beneficiary and control households. Based on survey data there were significant positive changes in income for both control and project beneficiary households. The net increase incomes among direct project beneficiaries after discounting the general rise in income for all gum arabic producers shows an increase in income among project beneficiaries of approximately 1,773 SDG in real terms, equivalent to a net incremental increase in income of 21%. However, no information was provided on gross versus net revenues, outstanding debt or sustainability of debt financing.
- **Internal rate of return.** A basic financial internal rate of return was calculated based on the estimated increase in revenue generated by gum arabic sales among project beneficiaries using assumptions on the average production levels, number of direct beneficiaries and the average price premium realized by project beneficiaries as found in project surveys and ICR analysis. If only direct beneficiary net revenues are compared to total project costs, the internal rate of return for the project is estimated at 7% which is below the opportunity cost of capital. Given the lack of data on available to quantify indirect benefits the internal rate of return was also calculated using a more narrow set of costs more directly associated with provision of services to direct beneficiaries. Under these different assumptions, the internal rate of return rises to 21%.



Administrative and Institutional Efficiency

The project experienced a slow start during 2009-2010. This stemmed from multiple layers of project coordination and longer than expected time to put staff in place at federal, state and locality levels. A study on the design of the market information system was commissioned and completed in 2013 following significant delays. There were procurement delays, but it is not clear whether these impacted implementation. The project spent only 46% of the appraisal value for component 1 while expenditure under component 3 was 19% higher than the appraisal value, however, project management and supervision (component 3) expenditures constituted about a third of the overall project funding.

Efficiency is rated modest due to the absence of an economic or financial analysis of project activities or quantitative estimate; and a significant overspending of funds for component 3 (Project Management and Supervision).

Efficiency Rating
Modest

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		0	0 <input type="checkbox"/> Not Applicable
ICR Estimate		0	0 <input type="checkbox"/> Not Applicable

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

6. Outcome

Relevance of objectives was rated high while relevance of design was rated substantial. Efficacy was rated substantial despite some shortcomings on marketing information system. There was considerable evidence provided in the ICR and final impact assessment that the project activities increased incomes of small-scale gum arabic producers. Efficiency was rated modest due to the absence of any ex post economic or financial analysis of project activities. Also, no information was provided on gross versus net revenues, outstanding debt or sustainability of debt financing and hence profitability was not clear. Finally, there was significant overspending of funds for component 3 (Project Management and Supervision exceeded appraisal estimate by 20%).

a. Outcome Rating
Moderately Satisfactory

7. Rationale for Risk to Development Outcome Rating

Risk to the development outcome is rated modest. The following risks are of concern:

- (i) The possibility of rolling back of policy reforms represents the primary policy risk to sustaining gains achieved under the project. There is a concern that revenue pressure may affect government commitment to sustaining the reform especially with low oil prices. Low revenue could create an incentive for re-imposition of taxes and fees.
- (ii) In order to fully operationalize a market information system for the sector, inter-ministerial/agency coordination between Forest National Corporation, Ministry of Foreign Trade and the Gum Arabic Board needs continued attention to ensure coordinated action.
- (iii) There is a concern that microfinance grant investments may not be sustained in the long term if lower repayment levels erode the principal



maintained by Gum Arabic Producer Associations.

(iv) Productivity of Gum Arabic trees is subject to environmental conditions. Erratic rain fall could negatively impact productivity and consequently reduce incomes of small farmers.

(v) Political instability and conflicts in some provinces could roll back benefits achieved under the project.

a. Risk to Development Outcome Rating
Modest

8. Assessment of Bank Performance

a. Quality-at-Entry

- The project was one of 15 projects financed by the Multi Donor Trust fund for North Sudan-a US\$249 million fund financed by 10 donors including the World Bank. The project was prepared under OP 8.0 and was to have a phased implementation arrangement to facilitate the gum arabic market reform and allow expansion to all project areas.
- Design benefitted from the World Bank Policy Note on the gum arabic sector that was issued in 2007 and provided a useful analysis of the sector and summarized the reform agenda. While the PAD included lessons from liberalizing state marketing monopolies in other countries, generic promotion campaign of agricultural commodities; and providing financing services to the rural poor, it was not clear which of these lessons were reflected in the project design.
- The project preparation took 14 months from the Project Concept Note (PCN) stage up to approval by the Rapid Response Committee (RCC). However, suggestions by the RCC to strengthen the project's results framework were not fully taken on board prior to approval. As a result the project was approved with a results framework that the task team and implementing agency acknowledged required immediate adjustment
- Seven risks were identified at the appraisal stage of which three were rated substantial and four were moderate. The PAD included relevant mitigation measures, however, the ICR did not discuss whether any of these risks materialized or whether mitigation measures were applied.
- M&E had some weaknesses with regards to the Results Framework (see section 10a).

Quality-at-Entry Rating
Moderately Satisfactory

b. Quality of supervision

Regular Bank supervision was facilitated by the presence of the task team leader (TTL) and staff within the region in neighboring countries. However, the project had a high turnover of TTLs as it was lead by four TTLs over the duration of the project. The ICR (para 91) stated that "frequent change in TTLship may have led to a loss of institutional memory and affected the extent of the Bank's engagement on policy dialogue over the course of implementation." Supervision of the IFAD funds was often undertaken as joint-Bank-IFAD missions. The market information system benefited from input of the Bank's information and communication technology (ICT) team. Matching grants and microfinance benefited from efforts by early supervision missions to develop and finalize implementation modalities for these activities. At the start of implementation the Bank had a relatively small office in Khartoum. As the portfolio of projects increased the office expanded and capacity improved. The 2013 MDTF-N evaluation found that in-country staffing was a challenge for the Bank and had an impact on the implementation of projects, but capacity improved in the second half of implementation period. A notable shortcoming for supervision was not conducting a mid-term review for the project. This would have provided an opportunity to formally re-assess the sector reform agenda with Government and implementation performance of matching grant activities. There was also a delay in adopting adjustments and additions to the results indicators that were proposed by the first supervision mission in May 2010, however, these were formally adopted in the 2011 restructuring. Also, additional changes in the results framework to better capture outputs and performance from matching grants at the intermediate result level were discussed in 2013, but ultimately not pursued. While the project was a category C, supervision might have missed an opportunity to strengthen environmental protection and social sustainability for the future especially that there were clear conservation and environmental benefits from the project. Finally, the Bank team should have identified and corrected the inconsistency in safeguards categorization between the original Final Project Proposal and Bank implementation status reports.



Quality of Supervision Rating
Moderately Satisfactory

Overall Bank Performance Rating
Moderately Satisfactory

9. Assessment of Borrower Performance

a. Government Performance

The Government showed commitment to the project as demonstrated by following through on implementation of the Presidential Directive on reforms and market liberalization. The government also established two ministerial committees to ensure the decree was implemented and barriers to implementation of the liberalization policy were addressed. In addition, the Gum Arabic Board was established to coordinate reform measures and support the revival of gum arabic production and exports. The Gum Arabic Board worked to promote gum arabic export, opening new markets, providing finance services and quality control.

However, Government policies were less consistent in terms of macroeconomic stability. During the project implementation period North Sudan had a significantly overvalued exchange rate and a parallel exchange market. Despite a number of consecutive devaluations of the local currency, real exchanges rates remained overvalued for the duration of project implementation. High inflation and growing budget deficits also had an impact with monetization of the budget deficit contributing to high inflation-which at times exceeded 45%. Finally, the presence of sanctions negatively impacted trade and complicated cross border payments.

Government Performance Rating
Moderately Satisfactory

b. Implementing Agency Performance

The project was implemented by Forest National Corporation (FNC), Ministry of Agriculture and Forestry. A Project Steering Committee provided a mechanism to coordinate with the line ministries and facilitate the sector policy reform initiatives while a Project Technical Committee provided implementation support and technical guidance to ensure effective management of the project. Both committees remained active throughout the project and are expected to continue as sector coordinating committees part of the sustainability plan. Project coordination improved over time despite a slow start in 2009-2010. The project coordinating unit oversaw project implementation by localities and performed central functions while locality implementation units provided the main implementation support. Locality implementation units prepared monthly and quarterly progress reports that were submitted to central coordinating unit. The project central coordinating unit prepared quarterly progress reports that were submitted timely to the Bank. Launching and implementing the market information system was delegated to the Ministry of Foreign Trade. However, this activity experienced delays and the market information system was not fully operationalized by project completion.

Implementing Agency Performance Rating
Moderately Satisfactory

Overall Borrower Performance Rating
Moderately Satisfactory

10. M&E Design, Implementation, & Utilization

a. M&E Design

To assess the project outcome, design included three outcome indicators. Two of these indicators were geared to assess income while the third was more of an output/intermediate outcome indicator that would assess the percentage of Gum Arabic Producer Associations (GAPAs) with effective saving and credit systems. There was no outcome indicator to assess the impact of the project on the increase in production of gum arabic. Design also included 16 output/intermediate outcome indicators to assess different activities supported by the project. Some indicators lacked a clear definition, for example, number and percentage of GAPAs with effective savings and credit systems, where the definition of *effective savings and credit systems* was not formally defined at appraisal or during implementation. A baseline survey was expected to be



carried out in project areas. Overall the original M&E design was complicated and did not reflect the core focus of the project on supporting small scale producers and their organizations.

The original results framework was adjusted during the June 2011 restructuring. Only one out of three original PDO level indicators was retained and the other two were re-classified as intermediate results indicators. A core indicator measuring direct project beneficiaries was added at PDO level. Intermediate results indicators were substantially changed to focus on the functioning of the gum arabic market and capacity building for Gum Arabic Producer Associations and related institutions at locality and central levels. Original intermediate results indicators on policy reforms, functioning of microcredit/revolving fund systems and project management were dropped. These changes simplified the results framework and were in response to the changing policy environment. However, performance of matching grants at the intermediate level was not adequately captured. It is not clear why the intermediate results indicator to assess the repayment rate of GAPA credit was dropped at restructuring.

b. M&E Implementation

The ICR did not provide information on implementation arrangements. However, according to Final Project Proposal (p. 60) the Forest National Corporation would oversee M&E activities through a dedicated M&E officer. A baseline survey was launched within six months of effectiveness and completed in the project's first year. Interim impact assessment and final impact assessment studies were also undertaken based on household surveys targeting. Technical progress reporting was consistent throughout the project implementation on a quarterly basis.

c. M&E Utilization

The ICR did not elaborate on M&E utilization, but stated that higher level indicators remained relevant throughout and generally provided guidance in terms of monitoring project implementation and achievement of the project objective. It was not clear how M&E information impacted management decisions. That said, it is evident that the ICR relied on the M&E data generated by the project to assess the achievement of outcomes.

M&E Quality Rating

Modest

11. Other Issues

a. Safeguards

The project was rated as category C as it was not expected to generate significant environmental and social impacts. It triggered only Environmental Assessment (OP/BP 4.01). The project was not expected to generate any significant environmental impacts; it was designed to enhance sustainable land management practices. It was also expected to strengthen traditional integrated land use practices by encouraging intercropping of Acacia trees with other cash crops. The project did not envisage triggering of any social policy safeguards. There was no acquisition of land for the sub-projects as only the existing nurseries were developed. However, if a subproject is found to include substantial environmental impacts, they will be addressed according to procedures and guidelines laid out in the umbrella Environmental and Social Management Framework (ESMF) for Natural Resources Projects in Sudan.

The ICR (para 34) reported that in all ISRs and internal Bank systems the project was rated Category B. According to safeguards guidelines reviewed by IEG, the project should have been a category B given the nature of supported activities. In 2013 an implementation support mission raised questions as to whether the project was misclassified as a category C, however, this issue was not resolved. According to the ICR (para 92) no matching grant activities were formally flagged as having negative impacts during implementation and the project was rated as being in compliance with applicable Bank policies and safeguards instruments by Bank implementation support missions. An external safeguard review for MDTF-N projects found no major issues and safeguards implementation was rated moderately satisfactory for the duration of the project. However, IEG notes that a moderately satisfactory rating does not necessarily mean that the project was in full compliance with the Bank's safeguard policies.



b. Fiduciary Compliance

Financial Management. The project started with a manual accounting system and relatively limited use of software but ultimately moved towards a fully electronic accounting system to manage funds. Audits were provided on time and no major issues identified. Capacity to manage funds increased over time and the ceiling of the designated account was raised to support scaling up of matching grants activities. The ICR did not report on the status of external Audits.

Procurement. Procurement risk was rated high at appraisal due to systemic country issues as well as capacity issues at FNC and project level. Early capacity building and training for the Procurement Officer appointed for the project eased procurement concerns; and training was also provided at both the Project Coordination Unit and Locality Implementation Unit levels. Procurement was centralized at the Project Coordination Unit level, with Locality Implementation Unit responsible of some small shopping (office furniture and stationary).

c. Unintended impacts (Positive or Negative)

Positive. The project produced 2.7 million seedlings of Acacia as a result of investments in tree nursery rehabilitation. While not all of the produced seedlings were expected to survive and reach maturity, those that do survive would potentially boost the long term productive potential within the localities where the project operated and across the gum belt in general. They would also play an important secondary role in agro-ecological systems: Acacia trees are legumes capable of fixing atmospheric nitrogen, hence they improve soil fertility; and act as wind breakers to reduce erosion. Trees also could be a source of both fuel and fodder for surrounding communities. Finally, Acacia trees would be expected to contribute global environmental and climate benefits through carbon sequestration.

d. Other

12. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Satisfactory	Moderately Satisfactory	Efficiency was rated modest due to the absence of any ex post economic or financial analysis of project activities.
Risk to Development Outcome	Modest	Modest	---
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	---
Borrower Performance	Moderately Satisfactory	Moderately Satisfactory	---
Quality of ICR		Substantial	---

Note

When insufficient information is provided by the Bank for IEG to arrive at a clear rating, IEG will downgrade the relevant ratings as warranted beginning July 1, 2006.

The "Reason for Disagreement/Comments" column could cross-reference other sections of the ICR Review, as appropriate.

13. Lessons

The ICR included six lessons. The following are emphasized with some adaptation of language:

- Addressing policy reforms combined with interventions targeting production, marketing and finance constraints can generate substantial gains for



producers. The project's dual focus on sector reform and interventions designed to address issues around production, marketing and access to finance created a dynamic that allowed producers organizations to quickly benefit from market liberalization. While all gum arabic producers benefitted from sector reform, those with additional access to training in production and harvesting, and productive infrastructure, transport and microfinance were able to more quickly take advantage of the improved marketing and price environment.

- **Market information systems are better located with organizations directly controlled by beneficiaries.** Having the market information systems anchored within a line ministry has proved challenging in other country contexts and appears to have faced similar challenges under this project. Lessons from other countries have shown market information systems should be hosted and managed by the direct beneficiaries who need information and have interest to share information. The need for information should be determined by producers and private operators and they could create their own association to manage the system. The Ministry of Foreign Trade might not have the same needs and interest to access quick and reliable market information.

14. Assessment Recommended?

No

15. Comments on Quality of ICR

The ICR provides a good account of project activities and reports candidly on most shortcomings. It included six lessons that reflected the project experience. The ICR discussed the achievement of the PDO as three inter-related outcomes, however, the PDO as stated had one outcome that the project sought to achieve through two inter-related elements. Also, the impact of project activities on improving gum arabic production was not clear. The ICR could have improved on the following points:

- carry out a detailed ex post economic and financial analysis to better assess efficiency
- shed light on risks identified at appraisal and if any materialized during implementation whether mitigation measures worked
- elaborate more on M&E implementation and utilization
- report on the status of external audit reports
- expenditure percentages reported by the ICR (para 19) did not match the expenditure figures in Annex 1
- the ICR (para 5) mentioned "better tree management" and "better harvesting techniques", however, more information on these would have been helpful to better understand the contribution of the project.

a. Quality of ICR Rating
Substantial