

Initiation of Kebbi Rice Revolution through the Implementation of Sawah Technology in the 3rd National Fadama Development (Fadama III) in 2010-2015. Related pages, photographs and data, Full page to World Bank website, <http://documents1.worldbank.org/curated/en/956751479735474649/text/FADAMA-III-ICR-P096572-Nov-2-2016-11162016.txt>

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IMPLEMENTATION COMPLETION AND RESULTS REPORT
(IDA-44940/IDA-52930 IDA-58490)

ON A
CREDIT
IN THE AMOUNT OF SDR 153.4 MILLION
(US\$ 250 MILLION EQUIVALENT)
TO THE
FEDERAL REPUBLIC OF NIGERIA
FOR A
THIRD NATIONAL FADAMA DEVELOPMENT (FADAMA III) PROJECT

November 2nd, 2016

Agriculture Global Practice
Western Africa Country Department 2
Africa Region

CURRENCY EQUIVALENTS

on appraisal and negotiations of such additional financing, and a supplemental ICR is to be prepared upon the full Project completion. Given the emergency nature of the operation, a waiver was requested to allow the first ICR to be completed six months after approval of the waiver rather than before Management's decision on appraisal and negotiations. This interim ICR is being prepared under that broader context.

This ICR only deals with the implementation of FADAMA-III and covers the implementation period from 2009 to December 2013. This ICR does not deal with the implementation of FADAMA-III Additional Financing (AF1) which has disbursed 26.81% till June 2016. Nonetheless, this ICR does provide a brief summary of implementation progress of the additional financing.

"Fadama" is a Hausa name for irrigable low land, usually low-lying plains that overlay shallow aquifers that straddle Nigeria's major river system. The World Bank supported FADAMA -I project to help develop irrigable Fadama land. Since then, the World Bank have supported a series of successive projects under FADAMA Series. These projects are now working beyond Fadama lands, but the brand name of Fadama has stuck for these Community Driven Development (CDD) agricultural projects. The table below provides a summary and evolution of FADAMA series of projects.

Table 1. Summary of FADAMA Series of Projects				
	Duration	IDA Loan	Project approach	Geographical Coverage
FADAMA-I	1992-1999	\$67.5 million	Top-down, building on Agriculture Development Program and emphasis on infrastructure investment.	Seven core states (Bauchi, Gombe, Jigawa, Kano, Kebbi, Sokoto, and Zamfara).
FADAMA-II	2003-2009	\$69.9 million	Bottom-up, CDD building on FADAMA-I with the incorporation of local development plans for a more inclusive model.	11 states (Adamawa, Bauchi, Gombe, Imo, Kaduna, Kebbi, Lagos, Niger, Ogun, Oyo, and Tarana) and the Federal Capital Territory (FCT), with the African Development Bank covering six additional
			1	states (Borno, Katsina, Kogi, Kwara, Plateau, and Jigawa), bringing the total to 18.
FADAMA-III	2008-2013	\$250 million	Bottom-up, CDD, building on FADAMA-II with the	36 states and the Federal Capital Territory (FCT).

FADAMA- AF1	2013- 2019	\$200 million	incorporation of FADAMA User Equity Fund for a more sustainable model. Bottom-up, CDD, and Value chain approach with focus on cassava, rice, sorghum, and horticulture with export potential.	Six chosen states (Anambra, Enugu, Kano, Kogi, Lagos, and Niger).
FADAMA- AF2	2016 - 2019	\$50 million	Bottom-up, CDD approach for restoration of the livelihoods of conflict affected households.	Six North East states affected by conflict in Nigeria (Borno, Yobe, Adamawa, Taraba, Bauchi, and Gombe).

1.1 Context at Appraisal

Nigeria is one of the largest economies in Africa and has a very large agricultural sector which, in 2005, accounted for almost 60 percent of the total labor force, generated one-third of GDP, and 5 percent of total exports. Until the early 1970s, Nigeria was self-sufficient in food production with a small surplus for export and agriculture was the main foreign exchange earner. However, the sector stagnated thereafter for a number of reasons, key among them was the discovery, exploitation, and exports of oil that resulted in a subsequent policy shift and resources allocations from agriculture to the oil-industry. Since agriculture employs an overwhelming share of the Nigerian labor force, stagnation of the sector resulted in increased poverty incidence.

The National Economic Empowerment and Development Strategy (NEEDS) explicitly recognized the strategic importance of the agricultural sector and lists special initiatives that the federal government intends to pursue in increased food and agricultural production. The NEEDSs sets out a series of quantitative performance targets to be achieved, including 6 percent annual growth in agricultural GDP, US \$3 billion per year in agricultural exports, and 95 percent national food self-sufficiency. The agricultural policy objectives outlined in the NEEDSs were complemented by those contained in the New Agricultural Policy.

In addition to the special initiatives outlined in the NEEDSs, the government developed a seven-point agenda for economic development based on the recognition that achievement of substantial and sustainable growth can be realized only if productivity and competitiveness of Nigerian agriculture can be improved. Pursuant to these overarching strategic goals, the government professed to adopt the following key policy option: a) promote a fully integrated and coordinated agricultural revolution through a functional public-private sector collaborative approach; b) promote a private sector-led input supply and distribution system; c) provide the enabling policy environment; d) support all-season farming by promoting rainfed and irrigated farming with an

approach; (iii) non-payment of Counterpart Contributions; (iv) gender biases curtail involvement of women and undermine principles of inclusion and equity; (v) collusion and/or intimidation at the community level to subvert procedures of transparency and accountability in management of funds; (vi) bureaucratic resistance to the initiative on the part of communities; (vii) potential elite capture and/or abuse of matching grant/grant programs; (viii) insecurity and violence in the Niger Delta zone may hinder community involvement and project implementation. The overall risk was assessed Moderate. These risks were correctly identified and appropriate mitigation measures provided. Given that Fadama III was building on a previous project, the experience under the Fadama II was expected to provide a guide for addressing any major issues during implementation.

Adequacy of participatory process

The project was prepared in a highly participatory manner. The government assembled a multi-sectoral team of stakeholders who played a critical role in the implementation of the project. The team, working under the NFRA (National Food Reserve Agency, previously Project Coordinating Unit under FMAWR), included key staff of the Federal Ministry of Agriculture and Rural Development (FMARD), Federal Ministry of Environment, Federal Ministry of Information, The Agricultural Development Programmes (ADPs), State Ministries of Agriculture, National Fadama II Coordinating Office, Federal Ministry of Finance, and some notable NGOs. At design, extensive consultations were held with beneficiaries, local governments, local communities, NGOs, researchers, donors, and technical specialists to discuss the project ideas. Moreover, the government had written to express a strong interest in having the project implemented in all 36 states of the federation including the Federal Capital Territory (FCT).

Therefore, the project design at appraisal was considered adequate and had high degree of relevance. There was high government commitment and the overall project design was satisfactory.

2.2 Implementation

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The Board approved the IDA credit of USD 250 million on July 1, 2008, to assist the Federal Government of Nigeria to increase the income of users of rural lands and water resources in a sustainable manner throughout the country. Fadama III Project was implemented at the Federal level, and in all 36 States, including the Federal Capital Territory (FCT) as well as in 20 Local Government areas of each state, by the respective State Ministries of Agriculture. The project became effective on March 29, 2009, and the local development plans (LDPs) was used as an innovative instrument to aggregate the participatory investment plans of the communities and promote community-driven development (CDD) in implementation through disbursement to communities for project implementation. To scale up impacts and development effectiveness of the project, the Board of the Executive Directors also approved on June 28, 2013, an additional Credit

amount of US \$200 million in line with OP/BP 10.00 by aligning it more closely with the new Agricultural Transformation Agenda (ATA) of the Federal Republic of Nigeria.

The project hit the ground running regarding implementation, given that it was a follow-on project to a very successful Fadama II. Implementation began well after effectiveness in 2009, and the project was well received and recognized by many at national and local levels. The project had offices at the national, state, and local government levels which facilitates interaction and dialogues with the government officials and project beneficiaries. There was no major restructuring of the project apart from the restructuring on Funds re-allocation that was carried out during the mid-term of the project in April 2012.

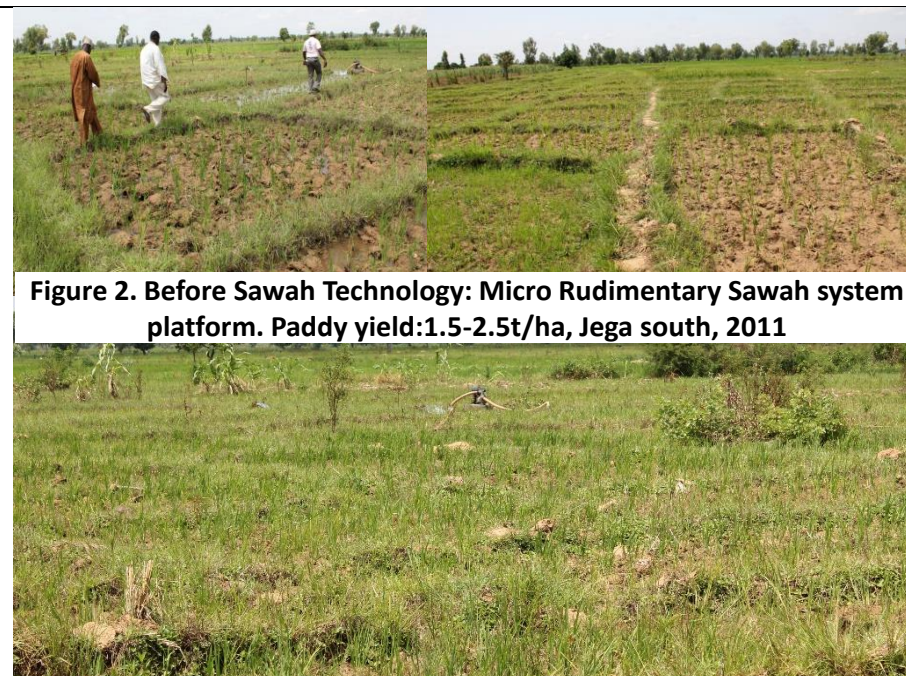
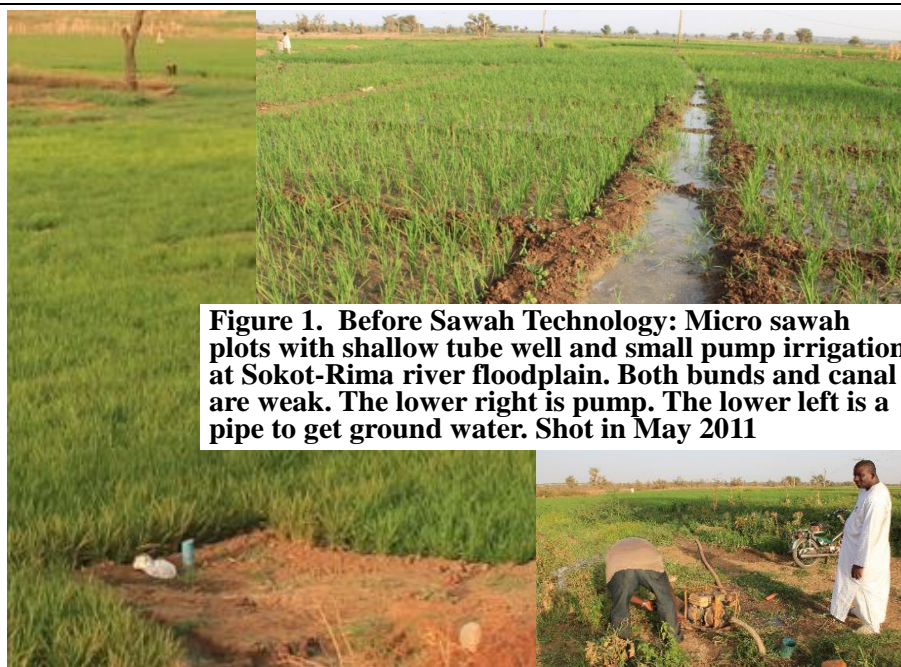
Some of the key factors that affected the implementation of the project and its outcomes are the following:

- i. **Partnership for Innovative activities:** About thirty identified innovative activities were introduced into the project implementation across the States through partnerships. These activities increase the level of benefits to FCAs/FUGs, enhance the achievement of the PDO and also ensure sustainability of sub-projects. These innovative activities can be categorized as collaboration/partnership and sole initiatives. Such collaborations are with research institutes, donors, regional bodies, agro firms, and other units within the World Bank, etc. The sole efforts include bio-gas production, improved use of ICT services, Fadama village concept, etc. These innovative activities enhanced the outcome of the project and it won an Innovation Day Award based on its activities on "Conversion of Waste to Wealth" during the competitive selection of projects for Innovation in 2011, for the World Bank Innovation Day Celebration. The project also collaborated with AFTCS and TWICT units of the Bank through, a programme on "ICT for Social accountability" which was piloted for the project in two states in Nigeria. The programme primarily deployed the use of information and communication technologies (ICT) -primarily the mobile phone -to engage Fadama communities and enhance social accountability. Through a mobile reporting tool and a network of reporters, beneficiaries of the project were reporting on quality of service received. The citizen feedback was then integrated into the monitoring and evaluation (M&E) system of the project. The project won "ICT for Accountability" team award in 2012. Before the end of the project life, it was yielding positive results and almost achieving the set targets set for its PDO. It won the Africa Region VPU Award in 2013. The project also collaborated with National Center for Agricultural Mechanization (NCAM)/Kinki University, Japan in 2010, on Sawah Eco-technology for Rice Farming (SERIF) in five pilot States of Benue (North Central), Delta (South South), Ebonyi (South East), Kebbi (North West), Lagos (South West) as well as FCT. Results obtained from the demonstration sites was very positive and it indicated that it is possible to have paddy yield increase of 6.5t/ha and 7.2t/ha as witnessed in the demonstration sites in Ebonyi and Kebbi States respectively, against traditional paddy yield of 1.5-2.5t/ha. The adoption by farmers increased yield of rice in states.

In collaboration with JICA, the project also initiated the Fadama information and knowledge services (FIKS) project to complement and enhanced its objectives and activities through JSDF funding support. FIKS supported mobile based advisory services in four piloted states in order to enhance the farmers' problem identification and response system. To assist this initiative, the Project undertook sponsored research through entering into a Performance-Based Contract with public and private research centers, including centers of excellence such as the International Institute of Tropical Agriculture (IITA), the West African Rice Development Center (WARDA) and the International Livestock Research Institute (ILRI) to develop technical propositions/recommendations/solutions to problems and agronomic issues on crop, livestock and other activities. The project also visited India in a south-south learning exchange visit to review various models on mobile-based agricultural advisory services and eventually collaborated for guidance support with IFFCO Kisan Sanchar Ltd. (IKSL) that operates the mobile-based agro advisory services. Both are headquartered in New Delhi, India. The FIKS platform eventually provided a valuable framework for the government's growth enhancement scheme under the Agricultural Transformation Agenda. (ATA) in 2013.

The project also collaborated with USAID-MARKETS to train the FCA members on business plans and farm management through its National Agricultural Enterprise Curriculum (NAEC) modules.

- ii. Effective Supervision system: The coverage of Fadama III in 36 states including FCT and operation in about 685 local councils as well as the formation and monitoring of over 200,000 FCAs was seen as a major challenge during the design stage. Therefore, the project put in place a rigorously thought-out and designed supervision strategy, that includes ad-hoc utilization of third-party monitoring, use of independent consultants, and ad-hoc state and zonal implementation support missions. The project also established six zonal offices which were well staffed to coordinate activities of a group of six to eight states and conduct zonal supervision missions. This enhanced data collection, competitive spirits, and achievement of project outcomes. The Zonal Coordinators reported to NFFCO on regular basis and coordinate reports and activities at the regional level. This assists an oversight function at the National level and also creates layers of a monitoring system for the Bank's implementation team. The regular workshops, rendition of M&E reports, comparison of results across states, coupled with an effective communication system facilitates support and coordination on the project.
- iii. Federation of Fadama Community Associations (FFCAs): Under the South-South Cooperation, the Fadama project undertook a study tour of India and Sri Lanka for learning experiences on intensification of federation of community groups, use of agricultural technological innovations and ICT, as well as promoting rural savings-credit revolving scheme. This resulted in the organization and establishment of the Federation of Fadama



Sawah Technology training in 2011-2015: Standard quality bunding ,
powertiller based leveling & puddling, and transplanting in checkrows



On-the-job training & Demonstration site at Birinin Kebbi, May 2011

GROWING AGRICULTURE IN KEBBI STATE:

A PAPER PRESENTED BY THE EXECUTIVE GOVERNOR OF KEBBI STATE, HIS EXCELLENCY, ALH. SA' IDU USMAN NASAMU DAKINGARI AT THE 19TH NATIONAL ECONOMIC SUMMIT GROU (NESG) HELD IN ABUJA ON THE 4TH SEPTEMBER, 2013.

RICE REVOLUTION

- Three hundred and eighty thousand (380,000) hectares of land has been brought under rice cultivation during the wet season.
- sixty thousand hectares under irrigation.
- 150,000 farmers participating .
- Target for 2013/2014 - 500,000 farmers
- The State has a large number of vibrant registered cooperative rice farming associations
- The State was able to obtain the highest national yield of 7.6tonnes per hectare in the year 2010 under the SAWAH/FADAMA programme using power tillers and proper agricultural practices.

Figure 5. Governor of Kebbi State, Dakingari, declared the Kebbi Rice Revolution at the Economic Summit at Abuja, Nigeria, 4th of September, 2013

FADAMA III PROJECT:

- Kebbi State Government in collaboration with the World Bank implemented the Fadama I & II and is presently implementing the third National Fadama Development Project.
- The Programmes provided wash bores, tube wells, water pumps; small earth dams, Fadama access roads, rural market infrastructures, and other needs as required by the communities,
- 45,000 farmers benefited
- disbursement - N1.7bn

CONCLUSION

- In conclusion our collective effort to date has resulted in;
- Making agriculture more attractive to the youth,
 - Reducing unemployment and restiveness among the youth,
 - increasing food production, providing food security, wealth creation and reducing poverty
 - Increase in hecterage under cultivation to 45% from 35% during the wet season and 35% from 20% in the dry season.
 - Dry season rice production increased to about 170,000 metric tons
 - Wet season rice production is estimated at about 760,000 metric tons.

Table. Training, Demonstration and Extension of Sawah Technology in 6 Rice Centers, Kebbi State during March 2011 to May 2014

1. Kinki University/NCAM/Fadama III Demonstration and Training, March 2011-April 2012

Local Government	Farmers	Powertillers No. supplied	Total Sawah developed (ha)	No. of 100kg Paddy bag	Paddy yield (ton/ha)
Arungu*	Shared	2 shared	6.5	487.5	7.5
Birinin Kebbi*	Shared	2 shared	3.5	227.5	6.5
Jega*	Shared	2 shared	8	560	7
Total		shared	18	1275	7.1**

*The six sites are shown in Figure 3. Although we monitored the extension progress, no yield data were obtained

**Mean

2. Endogenous Extension, April 2012-October 2013

3. Dry season, Nov. 2013-May 2014

	Farmers	No. of powertiller bought	Sawah area developed (ha)	No. of 100kg paddy bag	Paddy yield (ton/ha)	No. of powertiller bought	sawah area developed (ha)	No. of 100kg Paddy bags	Paddy yield (ton/ha)
Arungu *	MGD farm*	2	15	975	6.5	2	20	1400	7
	JUM farm	1	10	650	6.5	1	10	650	6.5
	ABK farm	1	4	260	6.5	1	8	480	6
	AK farm	1	3	180	6	1	6	360	6
	AMB farm	1	4	240	6	1	5	300	6
	Dr YA farm	1	4	240	6	1	5	300	6
	ANL farm	1	3	180	6	1	5	325	6.5
	AMI farm	1	6	390	6	1	10	650	6.5
	ASD farm	1	5	300	6	1	5	300	6
Birnin Kebbi*	ABA farm*	1	4	260	6.5	1	4	—	—
	BB farm	1	3	180	6	1	6	360	6
	AS farm	1	3	180	6	1	6	360	6
Bagudo*	ABB farm*	5	35	2450	7	5	50	3500	7
Jega*	HHJ farm*	1	7	455	6.5	1	14	910	6.5
	AUA farm	1	20	1200	6	1	40	2400	6
Suru*	Dr.UD farm	1	5	300	6	1	5	300	6
Total		22	131	8440	6.4**	22	199	12595	6.3**