

REPUBLIC OF RWANDA



OFFICE OF THE OMBUDSMAN

**OPERATIONAL AUDIT REPORT OF
RWANDA AGRICULTURAL DEVELOPMENT
AUTHORITY (RADA)**

Kigali, March 2010

TABLE OF CONTENTS

	List of tables	iii
	Abbreviations and acronyms	iv
	EXECUTIVE SUMMARY	1
I	INTRODUCTION	3
I.1	Context	3
I.2	Mission and responsibilities of RADA	4
I.3	Approach and methodology	5
II	FINDINGS	6
II.1	Transparency	6
II.2	Accountability	6
II.3	Responsiveness	7
II.4	Efficiency	8
II.4.1	Board of directors	8
II.4.2	Human resources management	9
II.4.3	Assets management	10
II.4.4	Strategic and action plans	12
II.4.5	Budget	13
II.4.6	Procurement process	14
II.5	Effectiveness	18
II.5.1	Crop Intensification Program	18
II.5.2	Rice program	21
II.5.3	Seeds accessibility	22
II.5.4	Fertilizers distribution	25
II.5.5	Post harvest technologies	25
II.5.6	Erosion control	26
II.5.7	Irrigation program	27
II.5.8	Marshland development	28
II.5.9	Service delivery	28
III	SWOT ANALYSIS	29
III.1	Strengths	29
III.2	Weaknesses	29
III.3	Opportunities	29
III.4	Threats	30
IV	RECOMMENDATIONS	31
	CONCLUSION	32

LIST OF TABLES

Table n°1:	RADA organisational structure	8
Table n°2:	Board of directors meetings in 2007 and 2008	9
Table n°3:	Example of unusable pesticides	11
Table n°4:	Budget granted and spent in 2007 and 2008	13
Table n°5:	Mismanagement of petty cash	14
Table n°6:	Tenders illegally awarded	15
Table n°7:	Tenders awarded illegally through the direct tendering method	16
Table n°8:	Tenders awarded without requesting a performance security	16
Table n°9:	Tender for supplying fuel	17
Table n°10:	Examples of selected crops according to Province	19
Table n°11:	Production growth of maize and wheat	20
Table n°12:	Rice production from 2005 to 2008	21
Table n°13:	Seeds needs and seeds production for main crops in 2008	22
Table n°14:	Seeds importation in 2008 and 2009	23
Table n°15:	Seeds needed and seeds distributed in 2009	23
Table n°16:	Total fertilizers imports in Rwanda	25

ABBREVIATIONS AND ACRONYMS

AFSR	: Appui à la Filière Semencière au Rwanda ;
CIP	: Crop Intensification Program ;
COPANGO	: Coopérative des Agriculteurs de Ngoma ;
EDPRS	: Economic Development and Poverty Reduction Strategy;
FAO	: Food and Agriculture Organisation ;
GDP	: Gross Domestic Product ;
Ha	: Hectare;
ICT	: Information and Communication Technology ;
ISAR	: Institute of Agronomic Science of Rwanda ;
Kg	: Kilogramme;
L	: Litre
MINAGRI	: Ministère de l’Agriculture et des Ressources Animales ;
MINITERE	: Ministère des Terres ;
MININFRA	: Ministère des Infrastructures ;
MT	: Metric Ton ;
NAP	: National Agricultural Policy;
PAPSTA	: Project to Support the Strategic Plan for Transformation of the Agriculture ;
PASNVA	: Project to Support the National Agriculture Extension System;
ROI	: Règlement d’Ordre Intérieur ;
RADA	: Rwanda Agricultural Development Authority ;
RARDA	: Rwanda Animal Resources Development Authority ;
REMA	: Rwanda Environmental Management Agency ;
RSSP	: Rural Sector Support Project ;
RWF	: Rwandan Franc;
SPAT	: Strategic Plan for the Agricultural Transformation;
T	: Ton;
UTEXRWA	: Usine de Textiles au Rwanda.

EXECUTIVE SUMMARY

RADA contributes towards the growth of agricultural production through the development of appropriate technologies and services to stakeholders in agriculture. According to the Law n°40/2006 of 30/09/2006 establishing and regulating the organisation, responsibilities and functioning of RADA, following are some of its responsibilities:

- supply farmers with appropriate technologies in order to increase their production;
- coordinate farmers' activities and those of other agricultural stakeholders;
- reinforce the farmers' technical capacity enabling them to be the pillar of their own development.

RADA is in charge of the implementation of national agricultural policy. Improvement of soil fertility, utilization of quality seeds, and improvement of farming practices are among actions to be undertaken for food self-sufficiency. Main crops chosen are maize, rice, wheat, beans, soybean and potato. However, there is a large gap between seeds needs and seeds production vis-à-vis the cultivated area.

RADA ensures the management of fertilizers imported by MINAGRI from foreign countries. Fertilizers are distributed by private retailers, farmers' associations or by districts. RADA delivers sometimes to them fertilizers on credit or on warranty of some donors.

As regards the crop production, rice is one of priority crops for the Rwandan Government. The average productivity per hectare presently is about 4 tons/ha compared to the targeted 8,72 tons/ha of paddy production to achieve food self-sufficiency. Only 13,000 ha out of 66,000 ha targeted are exploited. The country currently imports about 30% of the rice needs from foreign countries.

RADA deals with erosion control so as to improve agricultural production. Radical terraces are techniques helping to preserve the arable soil and ensuring maximum use of inputs applied to the field. It coordinates farmers' activities and sensitises them to use agricultural technologies to improve their production. A number of factors contributes to its success:

- national political will to modernise and transform the agricultural sector;
- involvement of private investors in the agricultural sector ;
- availability of hydrographic and other natural resources;
- good collaboration with local leaders, technicians and other service providers.

There are problems which hamper the success of RADA. They are mainly related to the insufficiency of skilled employees in field related to agriculture ; the insufficiency of quality seeds and the high costs of inputs and agricultural technologies. Also, there are the irregularities in the management of material and human resources. RADA has to overcome those problems for the improvement of performance so as to attain successful results qualitatively and quantitatively. This is why RADA should:

- ensure the adequacy between procedures and regulations for better resources management;
- conduct regularly physical and financial control;
- enhance the sensitisation towards local leaders and farmers for their active participation to its activities;
- develop storage facilities and post harvest technologies.

The functioning of RADA must be based on the principles of the good governance in order to raise the staff and the stakeholders participation in decision making and agricultural policy implementing.

I. INTRODUCTION

I.1 Context

The Office of the Ombudsman is stipulated in article 182 of the Constitution of the Republic of Rwanda of 04/06/2003 and was established by Law n° 25/2003 of 15/08/2003 modified and complemented by Law n°17/2005 of 18/8/2005 establishing the organization and functioning of the Office of the Ombudsman.

As stipulated in article 7 of Law n°25/2003, some of the attributions of the Office of the Ombudsman are :

- acting as a link between the citizen and public and private sector ;
- preventing and fighting against injustice, corruption in public and private administration ;
- advising Cabinet and other concerned institutions as regards strengthening and improving their policy of preventing, fighting, and punishing corruption ;
- advising the public and private institutions as to improvement of the quality of services delivered to the population.

In order to fulfill these attributions, the Office of the Ombudsman carries out the operational audit of institutions. In this regard, the Office led an evaluation of the Rwanda Agricultural Development Authority (RADA) from 27th August to 8th September 2009. The main purpose of that operational audit exercise was to assess the following:

- the organisation of RADA ;
- the leadership, functioning and collaboration between RADA and its stations ;
- the quality of services delivered ;

- any existing loophole of injustice and corruption in the functioning of RADA.

I.2 Mission and responsibilities of RADA

The mission of RADA is to contribute towards the growth of agricultural production through the development of appropriate technologies, providing advisory, outreach and extension services to stakeholders in agriculture.

According to the Law n°40/2006 of 30/09/2006 establishing and regulating the organisation, responsibilities and functioning of RADA , the following are its responsibilities:

- implement the national agriculture policy ;
- supply farmers with appropriate technologies in order to increase their production ;
- coordinate farmers' activities and those of other agricultural stakeholders ;
- reinforce the farmers' technical capacity enabling them to be the pillar of their own development ;
- coordinate all the agricultural activities bearing in mind their complementarities ;
- set up adequate mechanisms to make markets accessible to farmers.

RADA is involved in agricultural development. It is responsible to MINAGRI, the Ministry in charge of agriculture.

I.3 Approach and methodology

The operational audit was conducted through a methodological framework based on:

- assessing the functions carried out by RADA and key strategies reflected;
- assessing if the mission is implemented through transparency, efficiency and effectiveness ;
- assessing factors of proper administration and accountability.

The following documents have been referred to:

- strategic plan ;
- activities reports from various units ;
- accounting documents ;
- organizational structure of RADA.

In this audit exercise, the following staff has been encountered:

- Acting director general ;
- Directors of different units ;
- Different professionals;
- Stations managers and storekeepers.

Apart from services operating on the headquarters located in Rubirizi, in Kicukiro District, six stations have been visited in order to assess their activities and relevant challenges they meet. The stations visited are Mulindi and Kabuye in Gasabo District, Mututu in Nyanza District, Sigira in Nyamagabe District, Kinigi in Musanze District and Kareba in Nyabihu District.

This report presents briefly the functioning of RADA, highlighting its achievements and the factors which have an impact on its performance.

Recommendations are submitted to RADA in order to improve its performance for better management and service delivery.

II. FINDINGS

RADA is a government agency the functioning of which must be guided by the principles of good governance in order to raise the staff and stakeholders participation in decision making and implementation.

II.1 Transparency

RADA has established regulations regarding the requirements for the phytosanitary certificate or the norms for agricultural activities in stations. Sensitisation campaigns are conducted by ways of meetings, booklets, brochures or media. A low-documented website informs the public about RADA. Attributions and contacts of every member of staff are posted on each office.

Decisions taken are communicated to the staff by usual means of internal communication in the institution such as memos. The decisions making and procedures are done in a manner that follows regulations like the law n°40/2006 of 30/09/2006 establishing and regulating the organisation, responsibilities and functioning of RADA, the internal rules elaborated in 2008 and many others.

II. 2 Accountability

Internal rules hold the staff of RADA accountable within the scope of the role and employment position. Periodical reports, financial reports, procurement

reports, internal audit reports and plans are regularly produced and submitted to external institutions like MINAGRI to which RADA is accountable.

The Office of Auditor General of State Finances has conducted an audit for the financial year 2007. For the same period Rwanda Public Procurement Authority conducted an audit on awarded tenders. This report of the Office of the Ombudsman is an indication of the accountability of RADA.

II. 3 Responsiveness

RADA provides the inputs, technologies and extension services to farmers and public bodies like districts. However, there are problems which handicap RADA to serve the farmers in a reasonable timeframe and affect negatively the farmers' expectations :

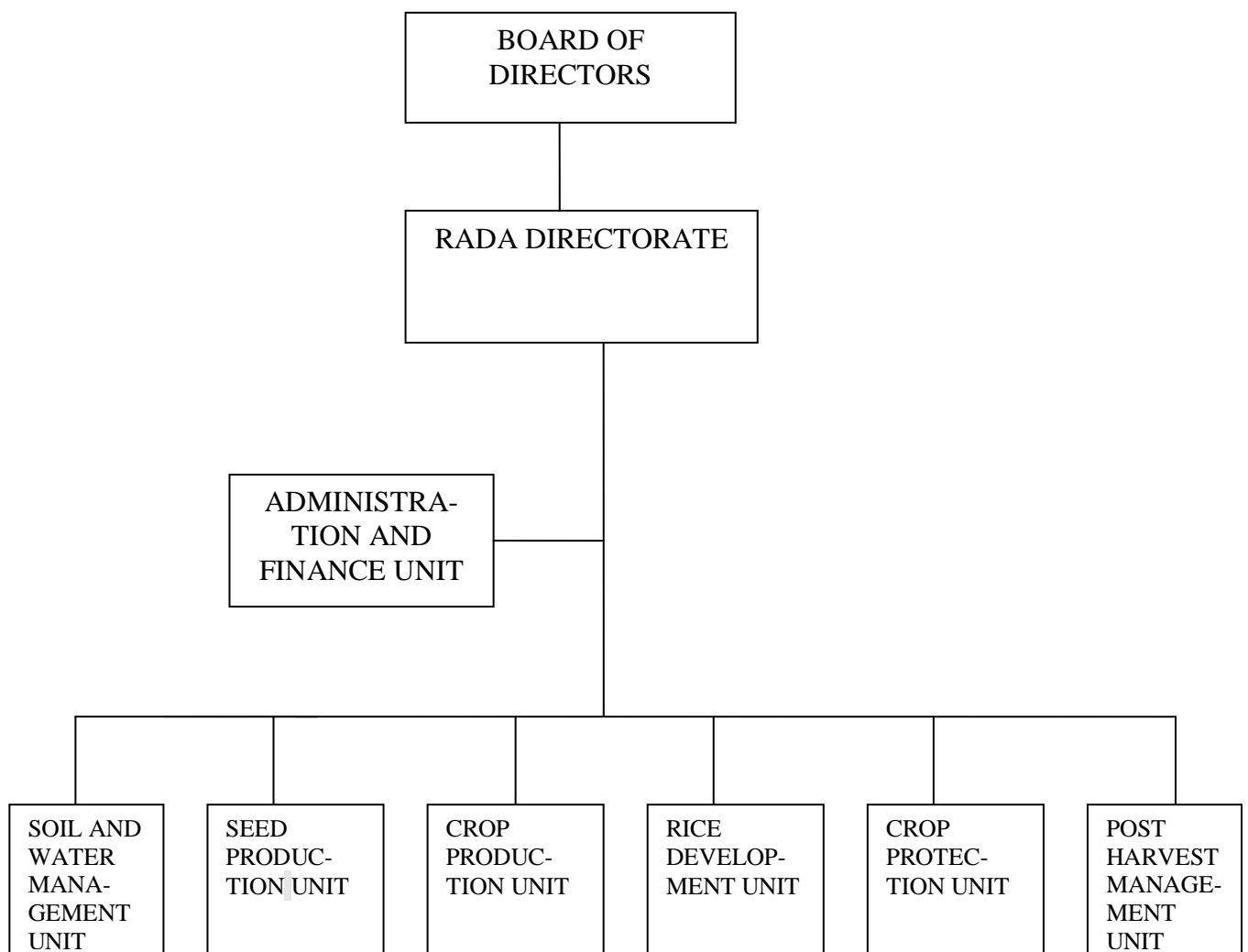
- insufficiency of basic and certified seeds and other inputs ;
- delivery of seeds which may fail to germinate because of poor conservation or soil contents;
- accounting services are centralized on the headquarters so that it can delay the delivery of needed products. For example, a farmer of Kinigi sector is obliged to request a purchasing order to the headquarters in Kigali City and presents it to the station manager in the same sector, before having potatoes quality seeds. This can impact negatively his farming activities. On this point, the Director General made an observation that there are a manager in charge of every station and the storekeeper. When a farmer needs seeds, he/she may purchase directly from that station. However, if large quantities are needed, the authorization is issued by Headquarters.

II. 4 Efficiency

II.4.1 Board of Directors

The Board of directors is the highest authority composed of appointed members empowered to take important decisions for the management of RADA. Their implementation is entrusted to the Director General assisted by directors of seven units.

Table n° 1: RADA organisational structure



The Board of directors is composed by seven appointed members and the Director General of RADA. Three of them are female. Two members (Permanent Secretary in MINAGRI and Director General of RADA) are senior officials in Government services. The meeting of the Board of Directors is held once in every term and at any time it is considered necessary .

Table n° 2 : Board of Directors meetings in 2007 and 2008

Period	Number of meetings	Attendance	Date
2007	3	7/8	08/08/2007
		7/8	18/10/2007
		7/8	05/12/2007
2008	4	7/8	20/02/2008
		7/8	28/04/2008
		7/8	08/08/2008
		7/8	05/12/2008

At the time of the operational audit , the Board of directors has held 2 meetings. The Board of directors discussed among issues the budget and financial reports, the implementation of decisions, the preparation of cropping seasons, the matters related to inputs or plants pathologies and the management of staff.

II.4. 2 Human resources management

RADA has 57 permanent employees and 74 persons employed under contracts. Employees' files are well managed even if some of them are incomplete because of missing documents like:

- copies of certified diplomas ;
- the copies of curriculum vitae ;
- application letters and probation reports.

There are also a number of casual workers employed in various activities at the headquarters and in stations. Workers in stations are managed and controlled by the different associations who enter into contracts with the directorate of RADA for specific tasks, especially the cultivation and the harvesting. The method used is the direct contracting regardless of the expenses to be incurred. On this point, the Director General of RADA made an observation that the casual workers are paid according to what they have cultivated or harvested and this is closely monitored by seed unit which approves invoices from stations. There are no unnecessary expenses that may be incurred.

RADA elaborated a human resource capacity building plan for 2007, 2008 and 2009 which was not implemented as it was planned. Trainings are offered according to the priorities fixed by MINAGRI and to the support of foreign countries such as China, Japan and Kenya. At the time of the operational audit, 6 employees were under trainings abroad.

II.4. 3 Assets management

The auditing team observed several irregularities in the management of store and inventory at the headquarters of RADA and in stations which may lead to deterioration, damage and pilferage of assets. Those irregularities include:

- some office assets neither codified, nor recorded;
- failure to undertake stocktaking to determine the condition and value of stores;
- store files not updated so that there is a gap in physical store and number of items (reams, soap packets, copybooks and notebooks) on store files.

RADA distributes the inputs to local farmers. However, there are unusable pesticides still kept in store together with other useful assets.

Table n° 3 : Example of unusable pesticides

Pesticides	Quantity
Ronilan 5c	63,5 l
Endasultan	45 kg
Breston 500sc	20 l
Milraz 76wp	34 kg
Trilin	30 l
Barsprout	158 kg
Ewivre	70 kg
Karate 5ec	355 l
Embabel	21 kg
Rovral 250 flo	33 l
Pychlorox5gkorrels	40 kg
Cuivre bleu	15 kg

There is no specific place where to keep those unusable pesticides. There are no means to avoid their bad effects on human beings.

No control of seeds store is conducted by RADA. Only the storekeeper carries out the inventory and she is the one who knows the quantity delivered to farmers and the quantity remaining in the store. On this point, the Director General made an observation that there is always a periodical seeds control done by storekeeper and the latter is supervised by the logistics officer and the professional in charge of marketing. This professional is even the person who issues *bon de sortie* for seeds to be provided to farmers.

Some stations of RADA (Mututu, Kareba,...) face the great problem of the ruined houses which have to serve as offices and warehouses. This gives room to the theft of assets.

Storekeepers of stations are also their accountants. As regards accounting, they face two main problems:

- lack of safes where to keep money; they keep money with them so that they delay to deposit it on bank accounts;
- gap between accounting records and cash at hand so that this practice gives way to use of money on their own interests or managers' interests. This is a loophole for embezzlement.

II. 4. 4 Strategic and action plans

RADA elaborated a strategic plan for 2006-2008. Since then, the Strategic Plan for Agricultural Transformation (SPAT) in Rwanda (2009-2012) serves as guidelines for its activities.

The Strategic Plan for Agricultural Transformation focuses on the following main lines:

- sustainable management of natural resources and water and soil conservation ;
- integrated development and intensification of crops and animal husbandry ;
- crop diversification and intensification ;
- livestock development ;
- marshland development ;
- irrigation development ;
- erosion control ;
- food security and vulnerability management.

RADA elaborated an action plan for 2008 and for January-June 2009. It was observed that in 2008, some of activities planned in the action plan were not implemented, such as

- preparation of irrigation master plan;

- conducting the inventory of agricultural technologies;
- sensitising farmers to use and maintenance of agricultural technologies.

Concerning the first activity, the Director General made an observation that the irrigation master plan is done on the level of MINAGRI. The role of RADA is to help the consultants in charge of elaborating the master plan. Concerning the other activities, they have been conducted by RADA and they are under way.

II.4.5 Budget

Rwanda Agricultural Development Authority prepares its budget every year and presents it directly to the Ministry of Finance and Economic Planning. Funds are allocated by the Government and the donors.

Table n° 4: Budget granted and spent in 2007 and 2008

Year Source	2007		2008	
	Budget requested (Rwf)	Budget spent (Rwf)	Budget requested (Rwf)	Budget spent (Rwf)
Ordinary Budget	719,139,833	719,139,833	937,321,188	936,971,416
Development Budget	0	0	110,130,000	110,130,000
Donors and support budget	246,138,132	246,138,132	757,361,829	757,361,829

The annual budget of RADA is executed through different activities such as the payment of salaries, the purchasing of furniture and services.

Irregularities have been observed in the management of petty cash where amount of money allocated and used exceeds the amount legally allowed.

Table n° 5: Mismanagement of petty cash

Date	Detail	Amount (Rwf)
8/4/2008	Travel allowance	30,000
23/4/2008	Travel allowance	26,000
30/4/2008	Wire for installation at Rubirizi station	23,950
19/5/2008	Sugar and mineral water	40,800
30/1/2008	Materials for agrishow	32,000
29/10/2008	Office painting	25,000
25/11/2008	Payment of milk	24,000
5/9/2008	Adaptor	35,000
5/9/2008	Transport to Kigali City for 3 days	40,000

The listed amounts have been delivered to the employees hand to hand from the petty cash contrary to the existing regulations which stipulate that single payments higher than 20,000 Rwf should be made by using cheques.

II.4. 6 Procurement process

RADA has an internal tender committee composed of five persons. Since it is operating, RADA has elaborated an annual procurement plan for 2008 and for 2009. However the plan is not respected. In 2008, although 59 tenders were planned on the procurement plan, 220 tenders have been awarded. Other

irregularities were observed as illustrated by the examples below concerning tenders awarded in 2007 and 2008.

Some tenders have been awarded contrary to legal provisions according to Law N° 12/2007 of 27/03/2007 establishing public procurement and the Ministerial Order n° 001/08/10/MIN of 15/01/2008 establishing regulations on public procurement and standard bidding documents. Short list method was used for tenders whose value exceeded 5,000,000 Rwf.

Table n° 6: Tenders illegally awarded

Title of tender	Successful bidders	Procurement method	Amount (Rwf)
Editing of booklets	Rwanda Net	Short list	15,841,500
Construction of a laboratory at Kabuye	ECOMAF	Short list	5,799,315
Trainings	Hotel Golf Eden Rock	Short list	7,789,800
Transport	Trans Africa Container Transport	Short list	8,895,000
Supply of travertin	GICAR	Short list	12,000,000

On this point, the Director General made an observation that tenders awarded on short list were very urgent following the instructions given by MINAGRI and RADA was requested to offer the tenders. In this case, the method legally recommended is the open tendering.

Following tenders have been awarded through the direct contracting although the value of each tender exceeds 100,000 Rwf.

Table n° 7: Tenders awarded illegally through the direct tendering method

Title of tender	Successful bidders	Procurement method	Amount (Rwf)
Lorry insurance	SONARWA	Direct contracting	1,089,175
Advertisement	ORINFOR	Direct contracting	2,684,500
Advertisement	ORINFOR	Direct contracting	2,655,000
Lorry insurance	SONARWA	Direct contracting	827, 287
Advertisement	ORINFOR	Direct contracting	13,920,000

On this point, the Director General made an observation that the two successful bidders are government institutions. RADIO RWANDA, a unit of ORINFOR, was the only media which was supposed to broadcast the advertisement.

Two tenders have been awarded and executed without requesting a performance security:

Table n° 8: Tenders awarded without requesting a performance security

Title of tender	Successful bidder	Amount (Rwf)
Supply of office and ICT furniture	Hakizimana	20,068,500
Renting for store	UTEXRWA	13,842,108

Article 17 of the Ministerial Order n° 001/08/10/MIN of 15/01/2008 provides for tenders awarded upon requesting for quotations. Such a tendering method can not be used more than once within three months for a tender of the same category. This provision had not been respected for tender for supplying fuel by TOTAL RWANDA.

Table n° 9: Tender for supplying fuel

Title of tender	Bidder	Date	Amount (Rwf)
Fuel	TOTAL RWANDA	22/02/2007	1,000,000
Fuel	TOTAL RWANDA	19/03/2007	1,000,000
Fuel	TOTAL RWANDA	9/04/2007	1,000,000
Fuel	TOTAL RWANDA	22/05/2007	1,000,000
Fuel	TOTAL RWANDA	10/07/2007	1,000,000
Fuel	TOTAL RWANDA	14/08/2007	1,000,000
Fuel	TOTAL RWANDA	27/09/2007	1,000,000
Fuel	TOTAL RWANDA	18/10/2007	1,000,000
Fuel	TOTAL RWANDA	26/10/2007	1,000,000

Concerning this tender of supplying the fuel, the Director General made an observation that the tender was open and TOTAL RWANDA emerged as a successful bidder. RADA bought in small quantities of 1,000,000 Rwf because fuel coupons issued by TOTAL RWANDA have a validity period. RADA avoided to lose due to the expiration of the period.

A tender of drafting the internal regulations of RADA valued at 2,000,000 Rwf has been awarded to Nyirampabwa Jeanne Françoise by using the quotation request method. This is contrary to the article 54 of the Law N° 12/2007 of 29/03/2007 and article 17 of the Ministerial Order n° 001/08/10/MIN of

15/01/2008 which stipulate that this method is applicable to a tender for which the value does not exceed 1,000,000 Rwf. The bidder is an employee of MINAGRI and a legal adviser of RADA. On this point, the Director General made an observation that this tender was awarded following the urgent order made by the Board of Directors.

II.5 Effectiveness

II.5.1 Crop Intensification Program

Government of Rwanda makes efforts to raise agriculture production through the Crop Intensification Program (CIP). The main objective of the CIP is to develop sustainable crops productivity through the increased use of inputs, agricultural technologies and the consolidation of land.

CIP focuses on intensification of priority food crops including cassava, potatoes, maize, bananas, wheat and rice, and the two main cash crops, coffee and tea. This focus guides allocation of resources to increase food security and household incomes. Regional specialisation of crops is due to the fact that some crops are more adapted than others according to agricultural regions.

Table n°10: Examples of selected crops according to Province

Province	Selected crops
Southern Province	Cassava, rice, coffee, tea, wheat, potatoes, maize
Northern Province	Tea , coffee, fruit (marakuja), potatoes, wheat
Eastern Province	Maize, rice, banana, cassava, coffee, pineapple, beans, sorghum
Western Province	Tea, coffee, wheat, cassava, fruit (marakuja), potatoes, maize, vegetables, rice, pineapple, beans
Kigali City	Fruits, vegetables, coffee, mushroom, pineapple, tomatoes

Crop Intensification Program intends to increase the agricultural production by using of high-yield seeds, inputs and improved technologies. RADA ensures the availability, distribution and use of fertilizers and pesticides. Quality seeds have been distributed to farmers and there is a significant growth of production for crops like maize and wheat.

Table n° 11: Production growth of maize and wheat

1. Area under CIP (Ha)	2007 A	2008 A	2009 A
Maize	21,831	62,006	65,241
Wheat	6,756	16,297	11,824
2. Yield (Kg)	2007 A	2008 A	2009 A
Maize	780	1,480	2,556
Wheat	939	2,209	2,563
3. Production (MT)	2007 A	2008 A	2009 A
Maize	17,028	91,759	166,757
Wheat	6,344	36,006	30,300

This table shows the situation of production growth for three cropping seasons comparing the cultivated area, the yield and the production. For maize, the growth is 81.7% (2009 A / 2008 A) and 879% (2009 A / 2007 A). For the wheat, the growth is -15.8% (2009 A / 2008 A) and 378% (2009 A / 2007 A).

Agricultural intensification requires increased use of inputs, regional specialisation and consolidation of arable areas. The agricultural mechanization should be taken into account for the development of agricultural productivity. Some farmers in Kirehe and Nyagatare districts use tractors in farming activities. RADA is mostly involved in the sensitisation of farmers for using agricultural technologies.

Innovative and specialized agriculture increases the production qualitatively and quantitatively. This justifies the necessity to integrate agriculture in market

economy to secure benefit to farming enterprises through high income and improved market.

II.5.2 Rice program

Rice is a priority crop for the Rwandan Government. The average productivity per hectare presently is about 4 tons compared to the targeted 8,72 tons of paddy production to achieve self-sufficiency. Only 13,000 ha out of 66,000 ha targeted are exploited. The country currently imports about 30% of its rice needs from countries such as Tanzania, Vietnam, and Thailand.

There are several constraints that limit crop productivity such as:

- seeds quality and access ;
- poor agriculture practices ;
- insufficient water in marshlands and poor management of the water infrastructures ;
- weak organization of farmers due to poor extension services ;

Table n° 12: Rice production from 2005 to 2008

Year	National production quantity (kg)	Imports quantity (kg)	National consumption quantity (kg)
2005	36,322,585	11,587,359	47,909,944
2006	34,089,055	16,662,453	50,751,508
2007	32,644,950	22,887,354	55,532,304
2008	42,900,000	17,925,435	60,825,435

It is obvious that there is an improvement in national production of rice even if the importation is still high. RADA is testing upland rice at Kabuye station.

However, the rice price is still high due to expensive activities of marshland development.

II. 5.3 Seeds accessibility

Rwanda is predominantly agriculture-based economy. The agriculture sector provides over 40% of GDP (2006) and 28% (2008). A bit less than 90% of the people live in rural areas. Food self-sufficiency based on increased food productivity is the principal pillar of the food strategy and one of the objectives of agricultural policy which is to be implemented by RADA. Improvement of soil fertility, utilization of quality (improved) seeds, and improvement of farming practices are among actions to be undertaken. Main crops chosen are maize, rice, wheat, beans, soybean and potato. However, there is a large gap between seeds needs and seeds production vis-à-vis the cultivated area.

Table n° 13: Seeds needs and seeds production for main crops in 2008

Crop	Cultivated area (Ha)	Sowing rate (Kg/Ha)	Seeds needed (MT)	Seeds production (T)
Maize	130,000	30	3,900	329.2
Rice	16,000	25	400	228.1
Wheat	15,000	100	1,500	53.03
Beans	270,000	70	18,900	35.42
Soybean	27,000	70	1,890	56.3
Potato	92,000	2,500	230,000	1562.3

Table 13 shows that the production of quality seeds is too low compared to the seeds needs. RADA which produces basic seeds has small land of 380 ha. The Government of Rwanda has opted for the importation of seeds from foreign countries.

Table n° 14: Seeds importation in 2008 and 2009 (in MT)

Crop	2008 A	2008 C	2009 A	2009 B	Total
Maize	500	100	590	250	1,340
Wheat	60	-	210	550	820
Potato	400	-	-	-	400

Tables 13 and 14 show the lack of quality seeds in the country, this is due to

- low number of private seeds multipliers;
- inadequate technologies;
- limited financial capacity of multipliers.

The above-mentioned problems impact negatively on agricultural production because farmers do not have seeds as they need. Quality seeds distributed are low compared to seeds needed.

Table n° 15: Seeds needed and seeds distributed in 2009

Crop	Seeds needed (MT)	Seeds distributed (MT)	Satisfaction rate
Wheat	421	326	77%
Maize	1175	891	76%
Beans	1278	32	3%
Total	2874	1249	43%

For wheat and maize , the rate is very high because the Government of Rwanda has done a lot for importation of seeds from Kenya and Tanzania.

RADA ensures the distribution of seeds and sometimes delivers them on credit or on warranty of some donors like Appui à la Filière Semencière au Rwanda (AFSR). It has been observed that RADA records a lot of debts related to purchased seeds valued at 177,447,166 Rwf. Main debtors are districts and farmers' associations.

Basic seeds are distributed by RADA at its headquarters; this delays their distribution in districts. Prices of quality seeds are high so that farmers use local seeds which are not certified nor declared. RADA distributed in some districts seeds which didn't germinate. This problem happened on beans seeds distributed in 2007 A in Kirehe, Rutsiro, Karongi, Nyamagabe, Huye, Gisagara, Muhanga, Musanze, Gakenke and Rulindo.

In 2008 RADA provided to COPANGO, a farmers' cooperative of Ngoma District, fake maize seeds which did not germinate and this caused to them a loss of 3 tons.¹

¹ A report of RADA's employee in Eastern Province of 04/04/2008

II.5.4 Fertilizers distribution

RADA ensures the management (storage and distribution) of fertilizers imported by MINAGRI from foreign countries.

Table n° 16: Total fertilizers imports in Rwanda

Year	Imports (Tons)
2004	4,612
2005	8,405
2006	13,942
2007	22,443
2008	17,200
2009	30,500

Fertilizers are distributed by private retailers, farmers' associations or by districts. RADA sometimes delivers to them fertilizers on credit or on warranty of AFSR, hoping that farmers will pay after harvesting. It has been observed that, from 2007 to July 23, 2009, RADA records 95 debtors who owe it 3,832,789,096 Rwf. Main debtors are districts and farmers' associations.

II.5.5 Post harvest technologies

RADA encourages the farmers as well as the private sector to participate intensively in processing, conservation and marketing of agricultural products. Following storage facilities are implemented:

- Machines used for hulling rice, for threshing maize or wheat;

- Cocoons are mainly used for storage of products in Eastern and Western Provinces. A low quantity of products is stored;
- Warehouses and silos have been erected in some districts.

RADA provides farmers with storage facilities and advises them on post harvest technologies. However there is a loss of seeds due to the insufficiency of those facilities and technologies. It ensures the supervision of post harvest technologies such as crop processing and handling. Plants for processing agricultural produces will contribute greatly to the improvement of food security.

II.5.6 Erosion control

It is estimated that 23% of Rwanda total surface have no risk of erosion, 38% have to be protected from erosion before cultivation and 39% have high risk of erosion. Erosion causes a loss of up to 1.4 million tons of fertile soils per year.

RADA deals with erosion control so as to improve agricultural production. Radical terraces are techniques helping to preserve the arable soil and ensuring maximum use of inputs applied to the field. At the end of the first quarter 2009, there were 24,395.96 ha of radical terraces out of 450,000 ha. RADA has targeted that the radical terracing activities should be complete by the end of 2009. But there is a lot still to be done.

The main handicaps of radical terracing activities are the following:

- some of successful bidders don't perform their work;
- some leaders on grass roots level don't take into account the seriousness of erosion problem;

- data concerning radical terracing achievements from grass roots level are fictitious.

II.5.7 Irrigation Program

According to EDPRS 2008-2012, area under irrigation infrastructure should be 20,000 ha compared to 40,000 ha as planned by Vision 2020. The potential irrigated area is 66,000 ha. The total arable surface of Rwanda is estimated to 52%, representing approximately 1,385,000 ha.

Marshland irrigation is the most developed so that about 13,000 ha are used for rice cultivation and are mainly located in Eastern Province, Southern Province and Bugarama Valley.

The agricultural development opportunities of marshlands rely on the possibility of cultivation of new marshlands areas (the potential area is around 70,000 ha to 100,000 ha including the protected natural areas) and the possibility of intensification of cultivated marshlands through irrigation infrastructure development.

Use of rainwater for irrigation is appropriate to semi-arid and arid areas where droughts occur frequently. Rainwater harvesting is developed in Eastern and Southern Provinces, though it is a demanding practice. Over 98 ponds and 39 underground tanks and their accompanying farms have been successfully done. Rainwater harvesting contributes to the development of upland irrigation for the cultivation of fruits trees and vegetables. It is practised in Bugesera District under pumping stations from local lakes, on some terraced land near water points, on terraced land in Western Province by gravity-feed irrigation.

II.5.8 Marshland development

Estimated area of marshlands is 170,000 ha according to FAO which takes into account as marshland a piece of land exceeding 25 ha. This area is 278,500 ha according to RADA and REMA which consider as marshland a piece of land ranging from 3 ha to 5 ha. RADA coordinates all interventions on marshland development or exploitation and provides necessary advices.

II.5.9 Service delivery

RADA provides various services to stakeholders. It delivers inputs to farmers and trains them to use the inputs and technical agronomic practices in order to increase their production. Farmers are sensitised to adhere to agricultural mechanisms set up to make market-oriented agriculture. Ways used are meetings, booklets and media. This will boost their economic development. RADA works hand in hand with farmers' cooperatives and coordinates their agricultural activities.

RADA delivers phytosanitary certificates and other required documents or products. However, RADA delays to visit farmers who request the authorisation for seeds multiplication due to the insufficiency of seeds inspectors.

RADA collaborates closely with local leaders and technicians for supervising agricultural activities. They provide data about radical terracing activities. It collaborates with service providers like CARITAS, Urugaga Imbaraga involved in the development of agriculture in various districts of the country.

III. SWOT ANALYSIS

III.1 Strengths

RADA plays a key role in the development of agriculture sector. There are strengths which enable that authority to achieve its objectives. Those are :

- skilled and motivated staff ;
- well-oriented policy of agricultural development ;
- good collaboration with stakeholders.

III.2 Weaknesses

RADA implements internal and external management procedures in spite of weaknesses such as:

- irregularities in procurement procedures ;
- irregularities in the inputs management ;
- insufficiency of equipments in laboratory ;
- insufficiency of inputs and appropriate technologies ;
- poor management of store and office assets ;
- insufficiency of skilled employees in field related to agriculture.

III.3 Opportunities

RADA operates in a conducive environment which allows it to achieve its goals by means of opportunities like:

- political will to modernise and transform the agricultural sector;
- involvement of private investors in the agricultural sector ;

- active participation of farmers in so far as the agriculture is the important source of their economic income;
- availability of hydrographic resources for irrigation ;
- close collaboration of RADA with different organizations and projects.

III.4 Threats

RADA makes efforts in agricultural development despite of handicapping exogenous factors such as:

- insufficient number of private seeds multipliers ;
- poor coordination of farmers' cooperatives by their leaders ;
- high cost of marshland development and agricultural technologies for agricultural mechanisation, rain water management;
- high costs of inputs and other agricultural materials ;
- poor marshland and hillside irrigation ;
- climate change ;
- crops destroyed by animals (baboons);
- farmers' resistance to modern agriculture so that some of them sell the inputs instead of using them ;
- persistence of traditional farming methods.

IV. RECOMMENDATIONS

RADA contributes to national economic growth through the development of agricultural technologies and methods. Best practices are fundamental for the improvement of performance so as to attain successful results qualitatively and quantitatively. This is why RADA should:

- ensure the adequacy between procedures and regulations for procurement and human resources management;
- deliver to MININFRA all assets which are not in use;
- respect the law governing the Board of Directors for the invitation of members;
- conduct physical stocktaking regularly;
- conduct regular financial control of stations;
- put in place strong mechanisms for recovering debts;
- enhance the sensitisation for developing local leaders and farmers understanding for their active participation to its activities;
- collaborate closely with local leaders in order to provide exact data concerning the total surface of area protected from erosion;
- develop storage facilities and post harvest technologies;
- renovate ruining stations offices and stores;
- ensure the ways of avoiding bad effects which can be caused by expired pesticides kept in stores;
- encourage farmers on using and harvesting of rainwater;
- promote the development of post harvest technologies, infrastructure for food processing and handling;
- promote private investment for the development of irrigation sector;
- ensure better conditions of storing seeds before being provided to farmers.

V. CONCLUSION

This operational audit report has briefly analysed the functioning of RADA with emphasis on relevant points. RADA deals with agricultural development, soil protection and water management. Farmers must use inputs for increasing crops production. RADA is involved in pests and plants pathologies control for crops protection. To ensure the availability of seeds, farmers are requested to use storage facilities like cocoons and pesticides. RADA is undertaking post harvest technologies such as crops processing and handling.

RADA is a government authority in charge of the implementation of NAP. Its internal management and collaboration with stakeholders must be based on the principles of good governance including accountability, responsiveness and transparency. This raises a sense of ownership and a real stake for the success of RADA objectives and gives room to better management, better service delivery and successful achievements.