

MALAWI NATIONAL RICE DEVELOPMENT STRATEGY



2014-2018



CONTACT DETAILS:

National Rice Development Platform

C/O The African Institute of Corporate Citizenship (AICC)

Private Bag 382

Lilongwe 3, Malawi.

Tel: +265 1 775 691/787

Fax: +265 1 775 761

Email: aicc@aiccafrica.org

Civil Society Agriculture Network (CISANET)

P.O. Box 203,

Lilongwe, Malawi.

Tel: +265 1 775 540/1 770 479

Fax: +265 1 770 492

Inter-Church Organisation for Development Cooperation (ICCO)

P.O. Box 31800

Lilongwe, Malawi.

Tel: +265 1 752 944

Fax: +265 1 752 947

Ministry of Agriculture, Irrigation and Water Development

Department of Crops

P.O. Box 30134

Lilongwe 3

Malawi

Tel: +265 (0)1 789 033

Fax: +265 (0)1 789 218

THE NATIONAL RICE DEVELOPMENT STRATEGY AT A GLANCE

<i>The National Rice Development Strategy (2014-2018)</i>	
Vision	<ul style="list-style-type: none"> To create a vibrant rice value chain that contributes significantly to household wealth creation and national economic growth
Mission	<ul style="list-style-type: none"> To increase household income, national food security and export earnings through sustainable rice production, marketing and utilization
Strategic Objectives	<ul style="list-style-type: none"> Increase coordination and collaboration throughout the rice value chain Enhance the ability of cooperatives to improve farmer livelihoods Support increased productivity for smallholder rice farmers Develop a strong rice market fueled by demand and the production of value-added products
Strategic Pillars	<ul style="list-style-type: none"> Governance and Institutional Framework Management of Farmers' Organisations Production Support Processing and Marketing
Expected Outcomes	<ul style="list-style-type: none"> Increased coordination and collaboration throughout the rice value chain Enhanced ability of cooperatives to improve farmer livelihoods Increased productivity for smallholder rice farmers A strong rice market fueled by demand and the production of value-added products
Expected Impacts	<ul style="list-style-type: none"> Increased household income Improved national food security Increased export earnings
Duration	<ul style="list-style-type: none"> 5 years (2014-2018)
Project Custodians	<ul style="list-style-type: none"> National Rice Development Platform (NRDP)

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3.5 Implementation Schedule

The strategy will follow the implementation schedule presented in Table 10:

Table 10: Implementing Schedule for the National Rice Development Strategy

	2014	2015	2016	2017	2018
Pillar I: Creating a Strong Institutional Framework					
Task 1: Consolidate NRDP to act as main representative for sector					
Task 2: Sustainability Plan and Business Plan for NRDP					
Task 3: Establish Rice Development Program					
Task 4: Facilitate Establishment of Cooperative Union					
Pillar II: Strengthening Farmers' Organisations					
Task 1: Improve Management and Governance of Cooperatives					
Task 2: Improve and Expand Cooperative Services					
Task 3: Update and Expand Irrigation Infrastructure					
Pillar III: Supporting Increased Production					
Task 1: Encourage Market-Oriented Research at Research Stations					
Task 2: Increase Linkages between Research, Extension, and Farmers					
Task 3: Support Programs to Increase Production of Certified Seed					
Task 4: Scoping for New Irrigation Schemes					
Pillar IV: Streamlined Processing and Marketing					
Task 1: Develop Rice Market Information System					
Task 2: Develop Storage Investment Engagement Plan					
Task 3: Support Processors in Market Strategies					
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Pillar III: Supporting Increased Production

Task 1: Encourage Market-Oriented Research at Research Stations	NRDP	Ministry of Agriculture	--Qualified staff to handle advocacy activities
Task 2: Increase Linkages between Research, Extension, and Farm-	RDP	NRDP; Agricultural Extension	--Qualified staff to handle coordination activities
Task 3: Support Programs to Increase Production of Certified Seed	RDP; NRDP	Ministry of Agriculture; Commercial Seed Companies	--Finance and human capacity to undertake study estimating demand for certified seed --Forums for dialogue between cooperatives and seed compa-
Task 4: Scoping for New Irrigation Schemes	RDP	Consultant	--Finance to fund study

Pillar IV: Streamlined Processing and Marketing

Task 1: Develop Rice Market Information System	RDP	Ministry of Agriculture; Agricultural Extension	--Staff with IT capacity to manage system --Finance for developing and rolling out system
Task 2: Develop Storage Investment Engagement Plan	RDP	ACE and other storage developers	To Be Done once RDP established
Task 3: Support Processors in Market Strategies	NRDP and RDP	Processors	To be done
Task 4: Dialogue on Minimum Prices and Export Bans for Rice	NRDP	Ministry of Agriculture; Ministry of Industry and Trade	--Qualified staff to handle advocacy activities

Table 9: Implementation and Resourcing

Task	Implementer/s	Partners	Resources Required
Pillar I: Creating a Strong Institutional Framework			
Task 1: Consolidate NRDP to act as main representative for sector	NRDP	All relevant stakeholders who will be members of Platform	--Strong and capable Executive Body --Staff for permanent Secretariat
Task 2: Sustainability Plan and Business Plan for NRDP	NRDP	Consultant	--Internal resources to create and implement plan --Budget to hire consultant
Task 3: Establish Rice Development Program	NRDP	Development Partners; consultant for helping to design	--Qualified personnel to staff RDP --Budget for hiring top staff and designing and carrying out programs
Task 4: Facilitate Establishment of Cooperative Union	NRDP	CISANET	--Qualified staff to handle coordination activities
Pillar II: Strengthening Farmers' Organisations			
Task 1: Improve Management and Governance of Cooperatives	RDP and Cooperatives	NGOs like AICC, Land O' Lakes, CISP and ICCO	--Qualified managers --Budget to provide appropriate salary to attract high-quality managers
Task 2: Improve and Expand Cooperative Services	RDP and Cooperative Managers	NRDP, Input suppliers; Agricultural Extension Services	--Finance to purchase inputs in bulk—should be recovered through fees charged
Task 3: Update and Expand Irrigation Infrastructure	RDP and Cooperative/WUA Managers	Private irrigation companies, Department of Irrigation	--Finance to repair/update infrastructure—should be recovered from farmer contributions

LIST OF ABBREVIATIONS

ADMARC	Agriculture Development and Marketing Corporation
AICC	African Institute for Corporate Citizenship
ASWAp	Agriculture Sector Wide Approach
CARD	Churches Action in Relief and Development
CISANET	Civil Society Agriculture Network
FAO	Food and Agriculture Organization
FARA	Forum for Agricultural Research in Africa
FIDP	Farm Income Development Program
FUM	Farmer's Union of Malawi
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GoM	Government of Malawi
ICCO	Inter-Church Organisation for Cooperation in Development
ICT	Information and Communication Technology
MBS	Malawi Bureau of Standards
MGDS II	Malawi Growth and Development Strategy II
MoAFS	Ministry of Agriculture and Food Security
MoIT	Ministry of Industry and Trade
MOST	Malawi Oil Seeds Transformation
MoWDI	Ministry of Water Development and Irrigation
MSB	Malawi Savings Bank
NASFAM	National Association of Smallholder Farmers of Malawi

NES	National Export Strategy
NGO	Non-Governmental Organization
NRDS	National Rice Development Strategy
OIBM	Opportunity Investment Bank of Malawi
OVOP	One Village One Product
PAP	Poor Agricultural Practices
RDP	Rice Development Program
SRI	System of Rice Intensification

3.4 Implementation and Resourcing

The following table provides information on the responsible implementing body for each activity in the strategy, as well as implementation partners, and a list of the resources required. The most important resourcing requirements are highlighted in orange.



Summary Table

Table 8: Summary of Strategic Pillars and Key Tasks

Pillar	Tasks
Governance and Institutional Framework	<ul style="list-style-type: none"> • Consolidate NRDP to act as main representative of sector • Ensure sustainability of NRDP by developing Sustainability and Business Plans, focusing on developing services offered by NRDP and on recruiting personnel for permanent Secretariat • Establish Rice Development Program to drive implementation of strategy and NRDP's strategic plan • Facilitate establishment of Rice Cooperatives Union
Strengthening of Farmers' Organisations	<ul style="list-style-type: none"> • Improve management and governance of cooperatives particularly marketing capacity • Enhance productivity through improved services <ul style="list-style-type: none"> ○ Facilitating access to inputs ○ Dissemination of knowledge on GAP • Upgrade and improve maintenance of existing irrigation infrastructure
Production Support	<ul style="list-style-type: none"> • Encourage market-oriented research at Rice Research Centers • Increase Linkages between Research, Extension, and Farmers • Support Program to increase supply of certified seed • Scoping for new irrigation schemes
Streamlined Processing and Marketing	<ul style="list-style-type: none"> • Develop rice market information system to disseminate market information to processors and farmers • Develop storage investment engagement plan and engage with commodity exchanges <ul style="list-style-type: none"> • Encourage processors to develop market strategies • Dialogue on Minimum Prices for Rice

FOREWORD

A country that is food insecure in all ways. Unless efforts are harnessed to eliminate food insecurity and sufficiency, all efforts towards social and economic growth are always futile. The comparative and competitive advantage of any country in agriculture depends on its ability to recognize potentials and levels of expansion and concentration. Obviously, rice is an arguably one such commodity that if grown and marketed in optimal quantities the path towards economic growth and social growth will be hastily shortened. It is estimated that, if Malawi can export 500,000 metric tonnes of rice (which it can manage) then the forex earned would out class the three hundred million United States dollars earned by tobacco. The potential impact of rice to the nation as a whole, can be neglected at our own peril.

The National Rice Development Strategy is therefore set to create a vibrant rice value chain that will contribute significantly to household wealth creation and national economic growth. This is in concordance with the recognition of agriculture in the *Malawi Growth and Development Strategy II* (MGDS II; 2011-2016) as key to food security, economic growth and wealth. In addition, the Ministry of Agriculture and Food Security formulated the ASWAP (2011-2016), which amongst one of its thematic areas is promoting increased commercial production of rice which is also considered as a high value chain crop to be promoted under irrigation primarily as an import substitute and as an export crop, which has also been identified by the National Export Strategy (NES 2013-2018) as hav-

ing potential for agro-processing. Sadly, rice production and yields in Malawi are conspicuously low and unstable: fluctuating considerably from year to year. Some of the problems that are being fraught by the sector include lack of access to necessary inputs, such as fertilizers, insecticides, pesticides and reliable markets.

The establishment of the National Rice Development Strategy will therefore ensure that key players in the rice subsector are working together to address the challenges systemically and systematically. Elsewhere in the world such documents have been a shared responsibility of all players of noble intents. Malawi cannot be an exception. This joint operationalization of the document should not be a tussle if the process of developing this strategy is anything to go by. The National Rice Development Strategy was developed as a result of joint extensive review of literature, national policies, strategies, various reports, strategic plans, and different country strategies. More importantly, it was also developed as a result of intensive and extensive consultations with various rice and economic stakeholders in the country. The National Rice Strategy has drawn best strategy practices and approaches from all these sources. Thus, this document is a synthesis of what has worked well and can work well.

Surely, this strategy is an end product that has come about from selfless and tireless effort of various stakeholders who are under the National Rice Development platform. I therefore would like to register my profound gratitude to the members of the National Rice Development platform. In a special way, let me recognize the immeasurable technical guidance provided by the African Institute of Corpo-

Task 4: Dialogue on Minimum Prices and Export Bans for Rice

The minimum prices for rice and export bans on rice instituted by the Government create a number of distortions in the sector. It creates unnecessary costs for processors, while providing an opportunity for traders to enter the market because they do not observe the minimum prices.

The NRDP will act as a forum for dialogue on this subject between the relevant stakeholders from the private sector, from government, and from the cooperatives, so that a solution may be developed to gradually reducing price distortions and export bans.



could play a key role in helping farmers understand how the warehouse receipt system works and its benefits.

Task 3: Support Processors in their Market Strategies

Processors inherently have an interest in creating growth in the rice sector and developing new products and markets in order to grow their profits and expand their business. Processors will develop their own market strategies to increase exports, increase domestic supply through improving consumer awareness, and develop new products. Throughout this process, the NRDP will be engaged with processors to act as a resource and help identify and deal with any constraints as they arise. This includes helping processors to access finance and other inputs they need to expand their business. There will also be scope to create a project through the RDP in order to help processors identify which downstream products will be profitable within the domestic and export markets. This sort of project would be delivered on a fee basis and will help contribute to NRDP sustainability.

Another issue that involves processors directly is that of rice quality. Processors oftentimes have difficulty obtaining a steady supply of high-quality paddy rice that does not break when milled and conforms to all of the appropriate standards. Processors should therefore be encouraged to engage with cooperatives to discuss and develop solutions for rice quality issues. The Rice Cooperative Unions would be a good venue to discuss these issues with the NRDP acting as a broker. Together, the cooperatives and processors can assess the problems of rice quality and develop appropriate steps to ameliorate the situation.

rate Citizenship (AICC) to the consultants and the platform during the development of this strategy. Special thanks are also due to the Norwegian Agency for Development Cooperation (NORAD) for their generous financial support.

I Thank You.

Dr. David Kamchacha

Chairperson, National Rice Development Platform (NRDP)



EXECUTIVE SUMMARY

The importance of rice is evident given its important place in the strategic food security planning policies by the Malawi Government. A potential of more than 200,000 hectares on upland slopes and in upland valleys exists. Grain yields in rain-fed upland are below 1 tonne/ha against an average 4.5 tonnes/ha of irrigated rice. Currently, under rain-fed 1000- 1500kg/ha is being produced against the potential 3500-4000Kg/ha and 4000kg/ha against 6000kg/ha under irrigated rice.

However, the rice sector is faced with many challenges which include low production and productivity of smallholder rice farmers. There is also an average of 58% yield gap for improved varieties and a 41% yield gap for hybrid varieties. Poor agricultural practices and challenges in accessing improved seed varieties and extension services are equally evident. Currently, a ratio of extension worker to farmer is 1:266. Besides these challenges, there is also lack of coordination amongst different players in the rice value chain as well as poor functioning of the farmer organization and cooperatives. Farmers are further bedeviled by limited access to market information as well as markets.

In order to address these constraints, there is therefore a need to advocate for and spearhead the use of improved and hybrid varieties, adherence to good agriculture practices and use of improved farming technologies, improving access to extension services, linking farmers to markets and enhancing coordinated efforts amongst the value

Task 2: Develop Storage Investment Engagement Plan and Engage with Commodity Exchanges

A major constraint on rice marketing for farmers is that they do not have enough storage space for their rice. As a result, they must sell all of their rice very quickly after harvest, which means they fetch a much lower price than at other times of year. In order to remedy this, farmers need to have access to storage facilities to keep their rice for longer and then sell it when prices are higher.

The NRDP will develop a Storage Investment Engagement Plan, in which they lay out a strategy for working with the private sector to encourage them to build more storage facilities for rice. The first step in this process would be to undertake a study to determine why the private sector is not already building storage facilities. The NRDP will then develop programs targeted at alleviating those particular constraints, which will then be handed over to the Rice Development Program to manage.

Additionally, the Platform will help to broker deals between major property companies, such as MPICO to construct new rice storage facilities close to the major rice-producing areas. Cooperatives in these areas can share the cost of these facilities and then all have equal access to them.

The NRDP will also link with ACE and AHCX to introduce a warehouse receipt system. Under this system, the farmers can deposit their rice at a warehouse run by a private business at a fee but they can also use the rice deposit as collateral to access credit from the banks. The Platform, with the help of the Rice Cooperatives Union,

3.3.4 PILLAR FOUR: Streamlined Processing and Marketing

Task 1: Develop Rice Market Information System

One of the many issues in the marketing of rice is a lack of knowledge on the part of smallholder farmers of the market demand for rice, in terms of the quantities demanded and the price.

The Rice Platform will facilitate the transfer of market information from rice processors to rice producers. The Platform will deal with rice producers either at the cooperative management level or directly at the farmer level. One possible method for transferring this information is to set up a market information system, based on the use of mobile phones, to transfer market information. Rice producers will simply need to register with the Platform and be enrolled in the System. The Platform will then gather market information directly from the rice processors and forward this to rice producers, through text messages or perhaps posts on a website. The development of a system like this would ensure that farmers are well aware of the demand for rice and the prevailing prices, so that they could plan their production accordingly.

The Government Extension Services Department has developed a system like this, but they have had issues with the roll out of the program. The Platform will communicate with Extension Services on this program and see if they can work together to improve and expand it or together develop a new system.

chain players to work together in order to strengthen the weak links and interactions that exist amongst them. Local potential resources for production and marketing need to be developed through sustainable strategies that includes all the stakeholders at all levels of the rice value chain.

It is against this background that the NRDS was conceptualized with the aim of increasing productivity and production of rice in Malawi in addition to addressing the structural constraints that stand in the development of the robust rice value chain. The NRDS envisions the creation of a vibrant rice value chain that contributes significantly to household wealth creation and national economic by increasing household income, national food security and export earnings through sustainable rice production, marketing and utilization. This will be achieved through the implementations of the following strategic objectives;

- Increasing coordination and collaboration amongst stakeholders throughout the rice value chain
- Enhancing the ability of cooperatives to improve farmer livelihoods
- Supporting increased productivity for smallholder rice farmers
- Developing a strong rice market fueled by demand and the production of value-added products

The strategy is built on four main pillars; governance and institutional framework, Management of farmers' organizations, production

support and processing and marketing. The main tasks include developing an adequate institutional framework; developing a Sustainability Plan which will map out the resources required to run the platform and chart a path towards being able to provide those resources without outside assistance within 3-5 years; development of a Business Plan which will map out which services the Platform should provide based on an assessment of stakeholders' willingness to pay for these services and the Platform's capacity to deliver each service and establishing a Rice Development Program (RDP), which will serve as the main implementing tool for the NRDS, thus providing the basis for task-oriented projects to ensure proper and strategic implementation of the strategy.

The expected outcomes from the implementation of the NRDS are; increased coordination and collaboration throughout the rice value chain, improved farmers livelihoods through organized cooperatives, increased productivity for smallholder rice farmers and a strong rice market fueled by demand and the production of value-added products.

The Rice Development Program will have a project to conduct a feasibility study which assesses and estimates the seasonal demand for certified seed in all ecological zones of rice production and more so in rain-fed farming where there are more rice producers. This will guide the researchers on how much basic and foundation seed will be required per season and also demonstrate to commercial companies that there is a high demand for certified seed. The platform will also work towards promoting adoption of certified seed by farmers through their cooperatives and extension planning areas. Cooperatives will be assisted to design credit systems that will ensure access by their members to certified seed.

Task 4: Scoping for New Irrigation Schemes

Increasing rice production in Malawi will also involve expanding irrigation to new areas. As a first step in this process, the NRDP will commission a study to scope for new areas in which irrigation schemes can be developed. The study will also determine which irrigation schemes can be expanded to include farmers in surrounding areas. The Ministry of Agriculture has already done a considerable amount of work to identify potential new sites for irrigation. The study will take stock of this work and ensure that it is accurately captured in the new study.

task, as they are the main point of access for reaching out to small-holders. The extension program designed by the RDP and Extension Services will likely focus on helping farmers to incorporate SRI methods for rice cultivation into their production practices. It will also include information on low-cost farming technologies, post-harvest handling practices, and marketing.

Task 3: Support Programs to Increase Production of Certified Seed

One of the constraints on production of improved varieties of rice is that there is not enough certified seed available in the country. As a result, farmers often recycle seed from the previous year, which leads to lower and lower yields each year. Increasing production of certified seed is therefore a key step for increasing rice farmer productivity.

The Ministry of Agriculture is currently developing a national strategy for improving production of certified rice seed to increase its availability countrywide. One of the main focuses of the strategy is to increase demand for certified seed by informing farmers on the benefits of certified seed; this will be done largely through demonstrations in the Cooperatives. Once commercial seed producers see that there is a demand, they will begin to produce certified rice seed to fill this demand. The platform will facilitate setting up these demonstrations cooperatives and also help to create a dialogue between Cooperatives and commercial seed companies to reduce information asymmetry.

INTRODUCTION

1.1 Importance of Rice in National Development

The Malawi Growth and Development Strategy II (MGDS II, 2011-2016) recognises agriculture as key to food security, economic growth and wealth creation. Agriculture employs about 80 per cent of the active labour force and accounts for at least 35 per cent of the Gross Domestic Product (GDP). As such, the performance of the agricultural sector has a significant positive correlation with growth in GDP. However, there are a number of challenges that impede the growth and development of the agriculture sector in Malawi. These include over-dependence on rain-fed farming, low absorption of improved technologies, poor support infrastructure, inadequate markets, weak private sector participation, low level of irrigation development and lack of investment in mechanization. The MGDS II, focuses on increasing reducing and overcoming these challenges to help increase agricultural productivity and diversification for sustainable economic growth.

The Ministry of Agriculture, Irrigation and Water Development (MoAFS) formulated the Agriculture Sector Wide Approach (ASWAp, 2011-2015) to operationalise the MGDS II. The ASWAp focuses on attaining 6 per cent growth annually in the agriculture sector by increasing agricultural productivity, improving food security, diversifying food production to improve nutrition at household level and increasing agricultural incomes of the rural people. The ASWAp is also consistent with the Comprehensive African Agricultural Development Programme (CAADP) under the New Partnership

for Africa's Development. The ASWAp advances broad-based agricultural growth in maize and tobacco but recognises that further additional growth in agriculture sector will come from other commodities including rice. The ASWAp, therefore, promotes increased commercial production of rice which is also considered as a high value crop to be promoted under irrigation primarily as an import substitute and as an export crop, which has also been identified by the National Export Strategy (NES, 2013-2018) as having potential for agro-processing.

The Food Security Policy (2006) supports production of rice by promoting irrigation development to ensure availability of food at all times through creation of a conducive environment for private sector investment and local community participation in irrigation development. The Crop Production Policy also supports rice production through expansion in hectarage and increase in yields to meet domestic and export demand. This was to be achieved by exploiting the potential in traditionally rice growing areas and later extending to other suitable areas; encouraging double cropping of rice where irrigation water is adequate and advocating for diversification where irrigation water is limited; and ensuring full utilization of irrigation schemes.

Depite the importance of rice for agricultural diversification and for increased exports, there is no coherent strategy that guides the development of the rice sub-sector to realize its full potential as an export and food security crop. It is against this background that the National Rice Development Platform with support from the Norwegian Agency for Development Cooperation (NORAD) championed the

National Rice Research Centers to ensure that new rice varieties and technologies are disseminated to farmers quickly. This should be done by strengthening research-extension-farmer linkages.

Task 2: Increase Linkages between Research, Extension, and Farmers

Not only does rice research need to be more sensitive to market demand, but Research Centers also need to be more active in disseminating their research findings to help improve farmer productivity. Designing a system in which research is continuously promoted amongst farmers is important for improving the uptake of new technologies and increasing productivity. Adoption of new varieties and technologies produced at the research centers is extremely low, at around 40%.

The NRDP will be largely responsible in coordination with extension services for developing and maintaining linkages between research centers and the farmers that they are meant to support. The NRDP will maintain continuous communication with the research centers to understand recent advances in new variety development and agronomic practices. Extension will focus on disseminating information on a variety of different fronts to help farmers increase productivity.

The RDP will create a program in this area, where they will work with extension services to package these technologies and disseminate them to farmers with the help of the cooperative managers and staff. This task can be linked with Task 2.3 above because cooperatives and their managers will be instrumental for implementing this

tween market preferences and research greatly reduces the potential benefits and impact of research.

As such, more funding should be directed at market-oriented research to improve yields and productivity of the most demanded rice varieties, namely Faya and Kilombero. This funding can simply be re-directed from existing projects.

In addition, it will be important to build human capacity at the Research Centers in order to develop more market-based research. Currently, there are only 3 rice experts in the whole of Malawi researching new rice varieties. More researchers will need to be recruited to enhance the capacity of research centers to develop new market-oriented varieties. There is also a need to include ecologists, entomologists, pathologists, extensionists, and economists as part of the research team.

The NRDP will act as the main driving body for effecting these changes within the Research Centers. The NRDP will dialogue with Government and the staff at the Rice Research Centers to determine why their research does not focus on more marketable rice varieties. They can then develop a project within the Rice Development Program to address any issues that prevent the development of research on marketable rice varieties. The Platform will need to have some power to insist that the Research Centers focus on developing the appropriate rice varieties. This may be possible if one or two senior experts from the Ministry of Agriculture hold key positions in the NRDP because they will likely hold more sway over activities at the Research Center. It is important to also enhance the outreach of the

formulation of the National Rice Development Strategy (NRDS) to guide the development of the sub-sector in the next five years as well as deal with the challenges in the sub-sector. The NRDS spells out the vision, mission, strategic objectives, strategic pillars, expected outcomes, impact, key strategies, implementation plan and funding sources.

1.2 Methodology

The formulation of the NRDS started in December, 2013 through an inception meeting with officials from AICC and Department of Crops which was followed by a stakeholders' meeting drawn from members of the National Rice Development Platform (NRDP). The meetings were aimed at sharing the major constraints in the rice sub-sector and brainstorming on the vision, mission, strategic pillars and outcomes for development of the sub-sector.

National policies and strategies were reviewed. These included the MGDS II (2012), NES (2012), ASWAp (2011), among others. Various reports were also reviewed such as the Rice Value Chain Policy Consultation report by CISANET (2012), the draft NRDP Strategic Plan (2013), the draft Rice Value Chain Analysis by Christian Aid/ICCO (2013). Literature review was conducted to understand the current situation of the rice sub-sector in Malawi in terms of production and productivity; marketing, processing and distribution; research and extension services; farmer organisation and operation through Water Users Association (WUAs) and cooperatives in irrigation schemes; exports and imports, among other things. Key challenges were also enlisted from literature which informed designing

of questions for the stakeholder consultations. A number of country strategies including Liberia, Ghana, Kenya and Tanzania were also reviewed to draw best practices and approaches that informed the formulation of the strategies in the NRDS for Malawi.

Consultations were conducted throughout the country at national, district and community levels. At national level, the consultations were held with policy makers especially from the MoA, I&WD, Ministry of Industry and Trade (MoIT) and the Malawi Bureau of Standards (MBS). At district level, consultations were held with the district officers working in rice sub-sector both from the public, private and NGO sectors in Karonga (FIDP, Self Help Africa) Nkhota-kota (NASFAM, Mtalimanja Holdings) and Blantyre (MBS, Fadamz Rice Milling). Key informant interviews were also conducted with rice researchers at Lifuwu Research Station in Salima. Both key informant interviews and focus group discussions were conducted with farmers in irrigation schemes in Karonga (Wovwe, Hara), Nkhata Bay (Lumphasa), Zomba (Domasi) and Chikhwawa (Nkhate).

The Draft NRDS was presented at a stakeholders' validation workshop that was attended by a cross-section of stakeholders drawn from the rice value chain. The members provided a number of comments and input which were included in the Final NRDS.

extraordinary tax for funding the project. The cooperative may also wish to work with a private sector player, such as a processing company, to help invest in irrigation. There is scope to obtain financing for these types of projects from the Export Development Fund, provided that a portion of the rice produced under the new irrigation is exported. The Platform could help to broker these deals between cooperatives and other players in the value chain.

Farmer organisations should also look at bringing nearby farmers into the existing irrigation schemes through a similar process. This would help increase membership in the organizations and improve yields for farmers in nearby areas.

3.3.3 PILLAR THREE: Support for Increased Production

As mentioned above, low rice production and poor yields are major constraints in the rice sector. The Strategy therefore takes increasing production as one of its main focuses, identifying areas where improvements can lead to higher yields for farmers and hence higher production throughout Malawi.

Task 1: Strengthen Research at National Rice Research Centers in Market-Oriented Way

Research at the National Rice Research Centers focuses very little on the demands of the market. As noted above, Kilombero and Faya are the most widely demanded across Malawi as well as in foreign markets; despite this, very little research is being done on improving the yields of these varieties or in developing higher-yielding rice varieties that are similar in taste and aroma. This disconnect be-

The Rice Development Program will have a project that focuses specifically on outreach between the cooperatives, research centers, and extension services to ensure that there is continual collaboration between these bodies. Another focus of the project should be on recruiting appropriate personnel to work in Extension and providing them more training on rice production. Where necessary, the NRDP will assist the RDP in coordinating these activities between the Cooperatives and Extension Services.

Task 3: Updating and Expanding Irrigation Infrastructure

As mentioned above, much of the irrigation infrastructure at the WUAs and cooperatives is outdated and does not function optimally. This increases costs for the WUAs because they need to constantly repair their equipment. The solution to this problem involves several steps.

Firstly, the NRDP through the Rice Development Program should reach out to cooperatives and WUAs and work with them to determine the way forward for either installing new irrigation infrastructure or updating the current irrigation infrastructure. Thereafter, the RDP will cost the various options for improving and updating the irrigation infrastructure. They will then discuss these plans with the management at each of the cooperatives to determine which is most appropriate for the situation.

The farmer organisations will then need to meet with their members, discuss the options, determine the most appropriate option, and come up with a way of funding the project. This will likely involve increasing membership fees by a certain amount or implementing an



Consultations with the key stakeholders in the rice subsector at the validation workshop

2 OVERVIEW OF THE RICE SUB-SECTOR IN MALAWI

2.1 Rice Production in Malawi

Malawi produced approximately 111,000 tons of rice in 2012 on around 60,100 ha¹ of land under rice cultivation, out of an estimated 600,000 ha of potential cultivation area. Growth in rice production for the last 12 years averaged 4 per cent per year while growth in harvested area averaged 3 per cent per year and growth in yield averaged 1 per cent year which is below the target of 6 per cent per year growth for the agriculture sector (Table 3). After a sharp decline in 2005, rice production grew steadily until 2009 and then declined slightly in 2010 and flattened in the last 2 years. In general, rice production and yields in Malawi are relatively low and also very unstable, fluctuating considerably from year to year (See trend analysis graphs). Current average yields are around 1,800 kg/ha, compared to 2,300 kg/ha in Zimbabwe and 4,900 kg/ha in Kenya.²

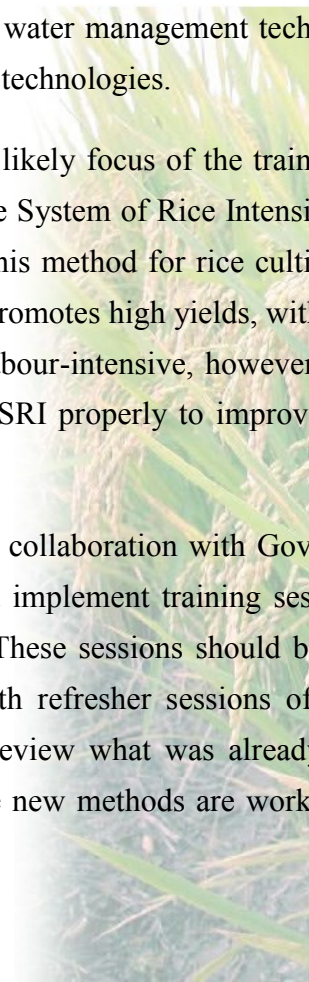


Dissemination of Improved Agronomic, Harvest and Post-Harvest Practices

Cooperatives are the best place to drive the adoption of new and improved agronomic practices because they interact directly with rice farmers at a local level. The cooperative system should therefore be leveraged to teach farmers newly developed agronomic practices and methods for increasing productivity, including low cost production technologies. Other important subjects include appropriate crop rotations in rice farming systems, soil and water management techniques, and pest, disease, and weed control technologies.

In terms of agronomic practices, the most likely focus of the training sessions should be teaching farmers the System of Rice Intensification (SRI) method for rice growing. This method for rice cultivation minimizes water requirements and promotes high yields, with minimal inputs required. The method is labour-intensive, however, so farmers need to be taught how to use SRI properly to improve yields.

The cooperative managers should work in collaboration with Government Extension Services to design and implement training sessions for disseminating this information. These sessions should be conducted quarterly or semi-annually, with refresher sessions offered to teach more advanced methods, review what was already taught, and to obtain feedback on how the new methods are working.



¹ The Green Belt Irrigation Initiative Document, GoM (2010).

² FAOSTAT

smallholder's production should be checked against the inputs provided at the beginning of the season. If there is a discrepancy between the inputs given and the outputs supplied, that smallholder would not be allowed to receive inputs the following year. This sort of system should ensure compliance from smallholders, particularly if farmers are informed in advance of the penalty for side selling. Improving the management system at the cooperatives would reinforce the effectiveness of this scheme because trained managers would be very capable of developing systems to track rice farmers.

For input supply, The NRDP will assist in connecting cooperatives with reliable input suppliers and facilitate agreements between the cooperatives and the suppliers to ensure that cooperatives have consistent access to inputs through these companies. This would also increase the strength of the NRDP because it would be seen to offer extremely useful services to its members.

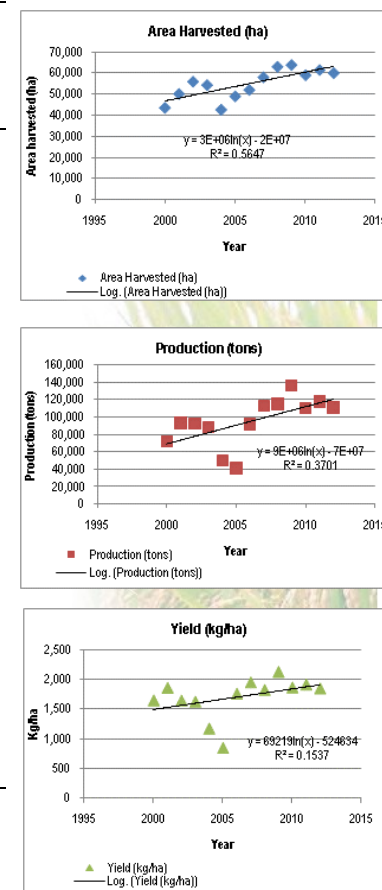
Facilitating Access to Capital Goods

Cooperatives can also help farmers increase their productivity by renting out capital goods, such as power tillers and threshers to increase mechanization on the farm. This will provide a funding stream for the cooperatives and also offer farmers the opportunity to access these tools. The Cooperative managers should work with the NRDP to help source these materials and also to get loans to purchase them.

Table 1: Rice Production in Malawi (2000-2012)

Year	Area harvested (ha)	Production (tons)	Yield (kg/ha)
2000	43,523	71,601	1,645
2001	50,146	93,150	1,858
2002	56,029	92,027	1,642
2003	54,393	88,184	1,621
2004	42,568	49,722	1,168
2005	48,993	41,270	842
2006	52,031	91,450	1,758
2007	58,091	113,166	1,948
2008	63,124	114,885	1,820
2009	63,967	135,988	2,126
2010	59,098	110,106	1,863
2011	61,559	117,733	1,913
2012	60,132	110,964	1,845
Average annual growth (%)	3%	4%	1%

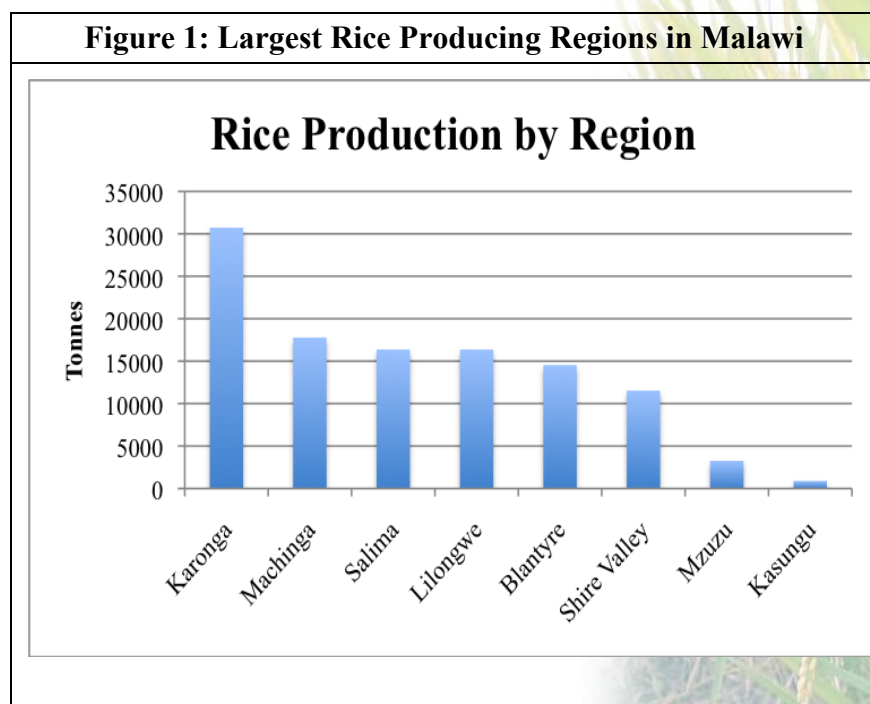
Trend in harvested area, production and yield



Source: MoAFS Statistics (2012)

2.2 Main Rice Growing Areas

The main rice production areas are along the Lakeshore, Phalombe plain, the Shire Valley and areas around Lake Chilwa. Yields vary considerably by ADD and tend to be significantly higher under irrigation. Karonga, Lilongwe, and the Shire Valley ADDs have the highest yields while Machinga, Kasungu and Mzuzu ADDs have the lowest yields, about 57 to 63 per cent lower than those of Karonga ADD (Figure 1).



Yields and production are generally constrained by a lack of access to necessary inputs, such as fertilizers, insecticides, pesticides, high-yielding seed varieties, water for irrigation, poor markets and Poor

cooperatives is the collective buying and marketing of rice, which is already dealt with in Task 1. However, cooperatives are in a good position to offer other services to help farmers increase their productivity and rice production. These services include 1) supplying farming inputs (possibly on credit) 2) renting out simple capital goods to increase mechanization and 3) disseminating information on improved agronomic practices (SRI) and improved harvesting and post-harvesting practices.

Facilitating Access to Inputs

Because cooperatives buy in bulk, they are able to supply inputs (e.g. certified seed, fertilizers, chemicals) to farmers at a lower cost than they could obtain in the market. This greatly benefits farmers and also helps to increase cooperative membership. This would be even more pronounced if the cooperatives were able to supply inputs to farmers on credit. The cost of the inputs would then simply be deducted from the farmer's payment when selling their rice to the cooperative. Some schemes, in Karonga, Salima, and Bwanje Valley, are already supply inputs to their farmers, and the system seems to work well.

The issue of side selling may arise, however. Smallholders may receive inputs from the cooperative on credit and then decide not to pay back and sell their rice somewhere else instead. This problem could be easily mitigated by closely following farmers and tracking the inputs they receive. When receiving inputs, a trained member of the cooperative should record the amount of inputs given and the farmer's plot size. At harvest time when repayment is due, the

member of the cooperative to serve as manager after 3 years. This system should then be repeated with the new manager and a trainee so that the cooperative continues to have good managerial capacity. The RDP will be the main implementer of this project and should work in close consultation with ICCO and CISP to learn from them and coordinate activities in this area.

The NRDP will also work with the Rice Cooperative Union on this front to determine which cooperatives are most in need of management assistance; these cooperatives will then be the first targets of the project. Working with the Cooperative Union will also help to ensure buy-in amongst the cooperatives for the new project.

Currently, there is a requirement in the Cooperative Act that only members of the Cooperative may be on the Cooperative Board. The NRDP will advocate for this to be changed so that the Cooperatives can look for leaders with the requisite skills from outside the Cooperative if the need arises.

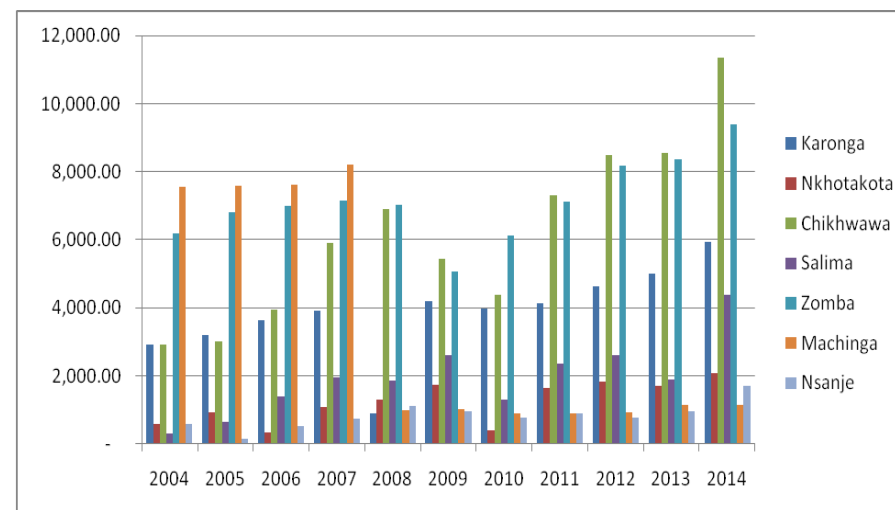
The Platform will also engage in educating cooperatives on why efficient management is important for the growth and survival of the cooperatives, focusing on how it helps profits and improves services to members. This will raise demand for the cooperatives and motivate the hiring of competent staff.

Task 2: Enhance Productivity through Improved and Expanded Services

In order to attract more members, cooperatives must provide more useful services to their members. The main service offered by the

Agricultural Practices (PAP). In addition, government extension services only reach about 2.7 per cent of rice farmers, mainly those in irrigation schemes. As high as 78 per cent of the rice farmers are reported to have low knowledge of land preparation practices, nursery management practices, field operations, crop establishment practices and fertilizer application practices.

Figure 2: Produced Rice Quantities Per District

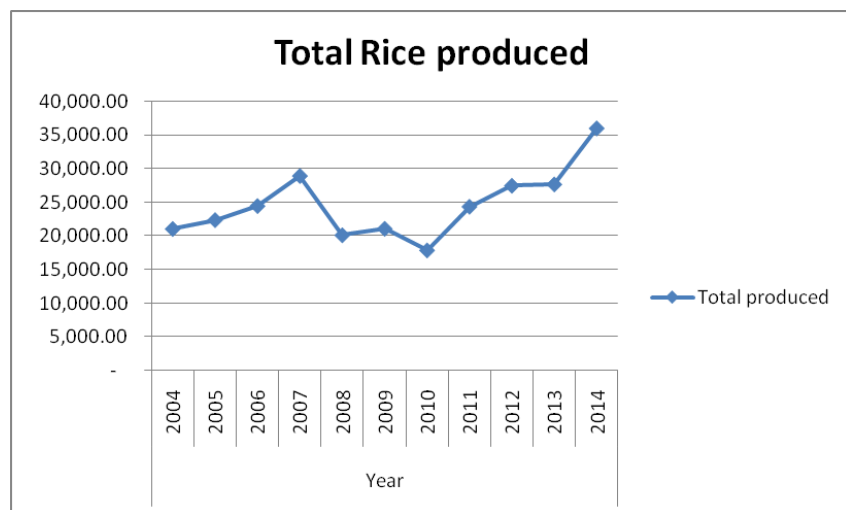


Produced quantities are in tonnes

From the rice data collected from the Agriculture districts offices, Machinga showed a substantial increased production quantity in the three consecutive years from 2004 to 2007, however, It has since recorded low tonnage up to 2014. Zomba and Chikhwawa on the other hand, recorded low output in 2009 and 2010 respectively. Nsanje and Salima has on average recorded low levels of rice over the previous ten years if compared to the other districts. As can be evident from the figure above, Chikhwawa Karonga and Zomba re-

main the highest producing districts across the ten years with Karonga's recorded tonnage being slightly below Chikhwawa's from 2004 to 2010 and a considerable difference from 2011 through 2014.

Figure 3: Total Rice Produced (2004 – 2014)



Produced quantities are in tonnes

Overall, from 2004 to 2007, there has been an increase in the recorded tonnage of rice with a slight fall in the preceding three years followed by a sharp increase in the tonnage which could be attributed to introduction of improved seed varieties of rice to the farmers, access to extension services and increase in hectorage committed to growing rice. It should be noted that some farmers do not aggregate their harvested quantities hence makes it hard to capture it in the district /schemes records. This affects the final recorded quantities for the districts

slowly begin to build a good working relationship. In this strategy, we identify activities for both the WUAs and the Cooperatives, so it will be important for both to function effectively. The following tasks are designed to improve the functioning of these organizations.

Task 1: Improve Management and Governance of Cooperatives

Improving management capacity at the cooperatives is essential for ensuring that they function efficiently and deliver useful services to their members. The management personnel at cooperatives must be able to 1) buy and market smallholder rice, and 2) develop strategic and business plans to guide the growth and development of the cooperatives. In addition, the management of cooperatives must have the capacity to do the following

- Ensure proper governance of cooperatives
- Manage the registration system
- Ensure accountability and transparency
- Communicate effectively with members
- Support bulk access to finance, inputs, information, water, etc
- Support farmer development via access to finance, new technologies, and better agricultural practices

ICCO and CISP have developed management support programs at a number of cooperatives, which can be used as a framework for establishing similar projects in other cooperatives. The NRDP will help to install a well-trained and experienced manager for 3 years who will help guide the cooperative and will also mentor a current

Unfortunately, there are a number of problems afflicting rice cooperatives that hamper their effectiveness. In many rice schemes, farmers do not trust the leadership of the cooperatives to be able to effectively buy and market rice. As a result, these farmers, even if they are members of the cooperative, often market rice on their own, which significantly reduces their bargaining power and hence the prices they receive for their rice. In addition, few of the rice cooperatives have strategic plans or business plans to guide their activities and grow their membership. This limits their influence and deters farmers from joining because they do not see the cooperatives as sustainable. Finally, there are frequently leadership wrangles at the cooperatives, which significantly affects their ability to function efficiently and collectively market their rice.

As a result of these issues, many of the rice cooperatives in Malawi are not sustainable because they cannot attract enough members to fund their operations. They also do not achieve their core goal, which is to collectively market smallholder rice.

In addition, there is a constant battle between WUAs and Cooperatives because many of their functions overlap. There is a great deal of confusion about what the separate activities of the two entities are. Before anything else, the Cooperatives and WUAs need to get together and delineate their functions, so that both organizations have a clearer idea of what they should be doing. If it turns out that there is little difference in their functions, they could simply merge. Either way, the Cooperatives and WUAs will need to work together to undertake many of the activities in the strategy so they should

2.3 Main Rice Varieties Grown in Malawi

There are four main varieties of rice – two improved and two hybrids – that are commonly grown in Malawi. The improved varieties are Kilombero and Faya 14M69 while the hybrid varieties are Pusa 33 and TCG10 (Table 2).

Table 2: Potential and Actual Yield of Main Varieties in Malawi

Variety	Yield			Key attributes
	Poten- tial	Actual (kg/ha)	Yield Gap(%)	
1. Kilombero	4,000	1,500 – 2,000	50% – 63%	<ul style="list-style-type: none"> • Highest aroma • 80% mill ability • Longer grain
2. Faya 14M69	4,500	1,500 – 2,000	56% – 67%	
3. Pusa 33	6,000	3,000 – 4,000	33% – 50%	<ul style="list-style-type: none"> • Low aroma • 60% mill ability
4. TCG 10	6,000	3,000 – 4,000	33% – 50%	

Source: Lifuwu Research Station and CISANET (2012).

The potential yield for Kilombero is 4,000 kg/ha but farmers only achieve between 1,500 kg/ha and 2,000 kg/ha which represents a yield gap of 50 to 63 per cent whereas the potential yield for Faya 14M69 is 4,500 kg/ha but farmers currently achieve between 1,500 kg/ha and 2,000 kg/ha with a yield gap of 56 to 67 per cent. The hy-

brid varieties have the highest potential yield of 6,000 kg/ha but farmers only achieve between 3,000 kg/ha and 4,000 kg/ha representing a yield gap of 33 to 50 per cent (Table 2). Most farmers grow Kilombero and Faya 14M69 because of their desirable attributes as compared to hybrids. Kilombero is currently the most produced, representing 24 per cent of production and Faya14M69 is the next most popular, representing around 19 per cent of production in 2012.³The majority of rice production in Malawi is, however, not of a particular variety because most smallholder farmers use recycled seed from the previous harvest. Currently, 89 per cent of farmers use recommended but non-certified seed. The seed is recycled, purchased locally, or in the case of improved seed, bought from farmer associations such as National Association of Smallholder Farmers in Malawi (NASFAM).

2.4 Rice Producers and Gender Dimension

Rice is mainly grown by smallholder farmers as a subsistence and cash crop. About 85 per cent of rice production in Malawi is through rain-fed lowland and upland farming and about 15 per cent is through irrigation. In irrigation schemes, Water User Associations were established by the Government to assist smallholder farmers to intensify production, mainly through access to irrigation. The WUAs also serve as centres for collective action, allowing farmers to achieve collective marketing for economies of scale as well as increasing rice producers' bargaining power. The WUAs also provide technical and business management trainings.

³Ministry of Agriculture and Food Security Statistics (2012).

Task 4: Facilitate Establishment of Cooperative Union

As part of encouraging a sound institutional framework, the NRDP should support the development of the Rice Union Cooperative. CISANET, with financial support from ICCO, is leading the development of this institution, and the registration process is currently underway. This Union will unite the rice cooperatives in Malawi under a single organization and will greatly facilitate communication and collaboration with the cooperatives. Working closely with the Rice Cooperatives Union should facilitate the Platform's task of reaching out to the cooperatives and will also enhance the sustainability of the NRDP because the Union can encourage its members to support the Platform's activities.

3.3.2 PILLAR TWO: Strengthening Farmers' Organisations

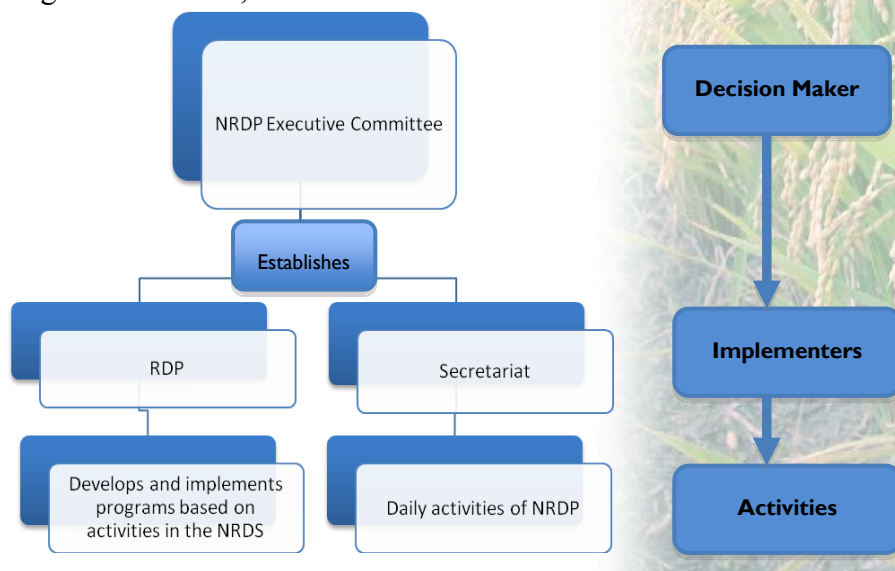
Farmers' organizations, in the form of cooperatives and Water Users Associations (WUAs), play a very important role in the rice sector as a hub for the marketing of smallholder rice, as well as a forum for collective decision-making and management of resources. They also can help to improve farmers' conditions by increasing their incomes and enhancing their resilience. Selling their rice through cooperatives allows farmers to enhance their bargaining power and obtain a higher price for their rice. Farmers' Organisations also help to raise the overall welfare of the farmer because they can help to improve their productivity and overall livelihoods as well as giving them a more collective voice to ensure that they can continually advocate for their interests.

strategy; it will provide the resources necessary for undertaking these activities. In this sense, the RDP will be similar to initiatives in other sectors, such as the Malawi Oil Seeds Transformation (MOST) Program.

Upon its inception, the RDP should undertake a study of the rice sector in Malawi and re-evaluate the necessary actions and projects needed to develop the sector. This study should be done using the “Making Markets Work for the Poor” approach, which seeks to leverage the efficient functioning of markets to help reduce poverty and increase incomes for the poor.

From this study, the RDP will be able to update the activities and projects contained in this strategy and also develop new projects as the market environment and obstacles to growth change over time.

The following organogram shows the structure of the NRDP, including its Secretariat, and the RDP.



Some farmers are also organized into cooperatives, which function similarly to the WUAs. There are 9 major irrigation schemes in Malawi, which are owned and managed by the farmers themselves. In total, around 10,000 smallholder farmers are organized into these WUAs and cooperatives and about 42 per cent of these are female farmers (Table 1). Although men dominate as members of WUAs and cooperatives, most of the activities in rice production are conducted by women. In Malawi, anecdotal information suggests that women carry out about 90 per cent of all agricultural production activities while men tend to dominate the marketing activities in the smallholder sub-sector.

Table 3: Membership in Irrigation Schemes

Irrigation scheme	Membership			Area under cultivation (ha)
	Total (#)	Male (%)	Female (%)	
1. Hara	531	83%	17%	238
2. Wovwe	1,110	68%	32%	365
3. Lufilya	1,123	-	-	500
4. Bua	790	63%	37%	300
5. Limphasa	821	45%	55%	467
6. Lifuwu	155	49%	51%	98
7. Bwanje	1,967	55%	45%	800
8. Domasi	1,935	52%	48%	470
9. Nkhate	1,356	59%	41%	243
Total	9,788	58%	42%	3,481

Source: CISANET (2012).

Women are highly involved in the production of rice at household level. Except for land tilling, almost all activities involved in production are reportedly completed by women, including; planting,

weeding, applying fertilizers, harvesting, beating, winnowing and packaging into bags. As is the case with many other crops, it is the male head of the household that is involved in the marketing of the rice. This is because men have control over household activities and the management of the household finances. Given the strategic importance of women in agriculture, especially in rice production, there is a need to place greater importance on equitable access to resources and opportunities to women. In light of this, gender integration into the NRDS is an important element especially by creating the enabling environment to eliminate factors that restrict productivity of women including improving access of women to productive resources and promoting active participation of women in various stages of the rice value chain.

2.5 Rice Value Chain

Figure 4 below gives a snapshot of the rice value chain. The main actors in the chain are in the centre of the diagram, while the supporting actors, such as input suppliers, are in the top portion. The rules governing the rice sector, such as quality standards, are pictured in the bottom portion of the figure.

Smallholder farmers generally sell milled or un-milled rice to small-scale traders or consume it themselves on farm. In some cases, rice producers are members of a farmer association or co-operative. In this case, farmers sell rice to their association or cooperative which markets the rice for them. This helps farmers attain better prices. According to FOCUS, about 95 per cent of the smallholder rice producers sell their rice to local traders while only 5 per cent sell to ei-

- Facilitate and broker deals between stakeholders in the value chain; for instance, brokering a deal between rice cooperatives and private companies for the construction of storage facilities

The Business Plan will also include a plan for increasing the human resources capacity of the NRDP. This will involve **establishing a permanent Secretariat** to manage the day-to-day activities of the Platform and developing a strategy for attracting highly competent leadership and management, both for the Secretariat and the upper management.

The NRDP Secretariat will report to the advisory/technical committee. There will be two co-chairs for the committee, one from the private sector and one from Government, who will be responsible for the overall leadership and strategic direction of the Platform. The committee should have a clear mandate and TORs but will not be involved in the management of the platform. The co-chairs will have many years of experience in the rice sector and a thorough understanding of the challenges and opportunities at every step of the rice value chain.

Task 3: Establish Rice Development Program

Once established as the main representative and governing body for the rice sector in Malawi, the NRDP should establish a Rice Development Program (RDP), which will serve as the main implementing tool for the NRDS. The programme will provide the basis for task-oriented projects to ensure the implementation of the tasks in this

- Advocate at the Government level for conducive policies for the rice sector, particularly the removal of export bans
- Periodical reviews of NRDS within the framework of Government policies
- Facilitate market-based seed research and dissemination

Task 2: Ensure Sustainability of NRDP

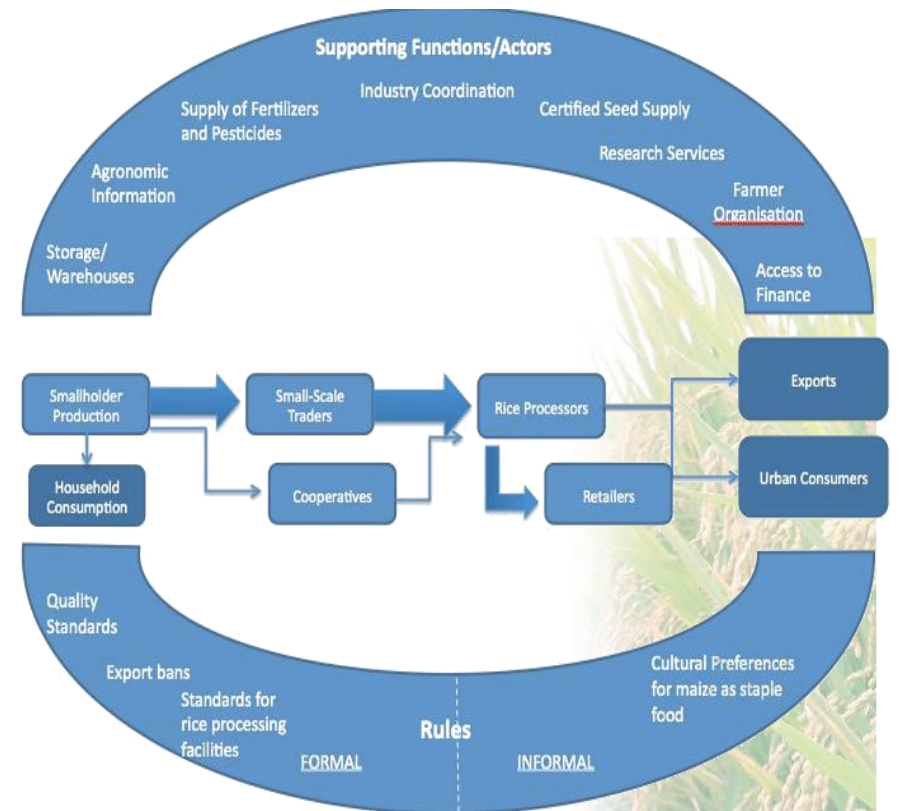
In order to be effective, the NRDP must be sustainable. As one of their first tasks, the NRDP should develop a **Sustainability Plan**, which will map out the resources required to run the Platform and chart a path towards being able to provide those resources without outside assistance within 3-5 years. The Sustainability Plan should focus on increasing membership by offering demand-driven services that can be supplied on a fee basis. This will ensure sustainability, as more members will be attracted by the services and pay for them, which will provide operating income for the Platform. In addition, it will be easy to enforce payment because members will simply be cut off from receiving services if they do not pay in time.

As part of this task, the Platform will work with a consultant to develop a **Business Plan**, which will map out which services the Platform should provide based on an assessment of stakeholders’ willingness to pay for these services and the Platform’s capacity to deliver each service. Some examples of these services include:

- Develop a market information system which transfers market information between rice processors and rice producers through the use of ICT technology

ther NASFAM or Agricultural Development and Marketing Corporation (ADMARC).

Figure 4: Rice Value Chain, Supporting Actors and Rules



Source: Imani Development Business Innovation Facility Project (2014).

Rice is sold to small-scale traders (vendors) in the communities because the vendors have the advantage of transport whereas smallholder farmers mostly do not have the capacity to travel to reach other markets. Small-scale traders who purchase rice in communities tend to dictate the purchasing prices; to the disadvantage of the

smallholder rice producers. Small-scale traders then transport the paddy either to larger scale traders or to processors/millers where the commodity can be processed or sold by retailers or exported (centre portion, Figure 2).

About 74 per cent of rice producers sell un-milled rice (paddy) to vendors. The remainder is milled by smallholder farmers themselves who sell it with a degree of value addition. Such farmers tend to live in close proximity to a town, WUA or cooperative where the mills are found at a fee. In most cases, the small-scale traders will mill the paddy at a cost and then sell on to larger processors such as Rab Processors, Capital Foods, Farmers World, Export Trading, Transglobe, or in other cases, the paddy is bought from traders and the miller then trades with retailers. A final stage before the rice reaches the consumer is packaging; which is done by the miller, the trader or the retailer (Christian Aid/ICCO, 2013).

However, there is lack of information sharing between rice producers and traders as well as processors. Rice farmers at times produce without knowing the varieties and quantities demanded by traders and processors. Likewise, the traders and processors are not forthcoming with the volumes and quantities demanded by the market. Under such circumstances, rice trading tends to be ad hoc and mainly on individual basis. This compromises quality of rice as well as the bargaining power of rice producers for a better price. Consumers are also not aware of the different varieties of rice which some processors take advantage of by mixing different varieties in one package and label them as the superior variety. Most processors also sell rice as grain with very little downstream value addition to rice for

- Farmer organizations, e.g. FUM, NASFAM, and Rice Cooperatives Union
- Policy makers
- Regulatory bodies, e.g. MBS
- Agro-processors, e.g. Mtalimanja Holdings, Rab Processors, Rice Millins etc
- Service providers e.g. input suppliers
- Rice traders and merchants
- NGOs (AICC, CISANET, ICCO, Land O' Lakes)
- Credit providers, e.g. OIBM, MSB

As the representative of the rice sector, the NRDP will need to coordinate the players in the rice value chain and act as the main linkage between rice producers, input and service providers, rice processors, and other private and public sector organizations and development partners. It will act as a broker for deals between stakeholders in the rice sector and other private sector actors and also create and maintain linkages amongst the key stakeholders to enhance cooperation and increase efficiency. In addition, the NRDP will be the main advocate for the rice sector at the Government level and will therefore need to support the adoption of policies conducive to the rice sector. In summary, as the rice sector representative, the NRDP will need to:

- Champion resource mobilization
- Facilitate public-private partnership investments
- Harmonize and coordinate investments

framework will allow the Strategy to remain flexible and practical in order to keep pace with a changing environment. A strong institutional framework is also a key for resources mobilization with which to effectively implement the strategy and develop the rice sector.

Task 1: Consolidate NRDP to act as Main Representative and Decision-Maker for Rice Sector

The establishment of a main body for organizing and spearheading the work of the Strategy is a necessity for ensuring that it has a driving force. The rice sector already has the National Rice Development Platform (NRDP), which comprises of stakeholders in the rice sector from government, the private sector, and civil society. This organization should serve as the main decision-making body for the rice sector and also as the representative of the sector as a whole.

In order to be considered as the main representative of the rice sector, the NRDP will need to demonstrate its capacity to actually represent its constituents and provide them with useful services. The membership must therefore be as inclusive as possible, encompassing a wide range of stakeholders in the sector. The membership should be widened to include as many of the following as possible.

- Ministry of Agriculture, Irrigation and Water Development including Extension Services
- Researchers (Lifuwu, Bunda, Regional and International institutions and others)
- Relevant sector ministries like, Local Government, Fisheries, Trade and Industry, etc

other products such as puffs, cereals and snacks, etc. There is also limited utilisation of by-products of rice such as rice stalks and husks which can be used as organic manure and animal feed.

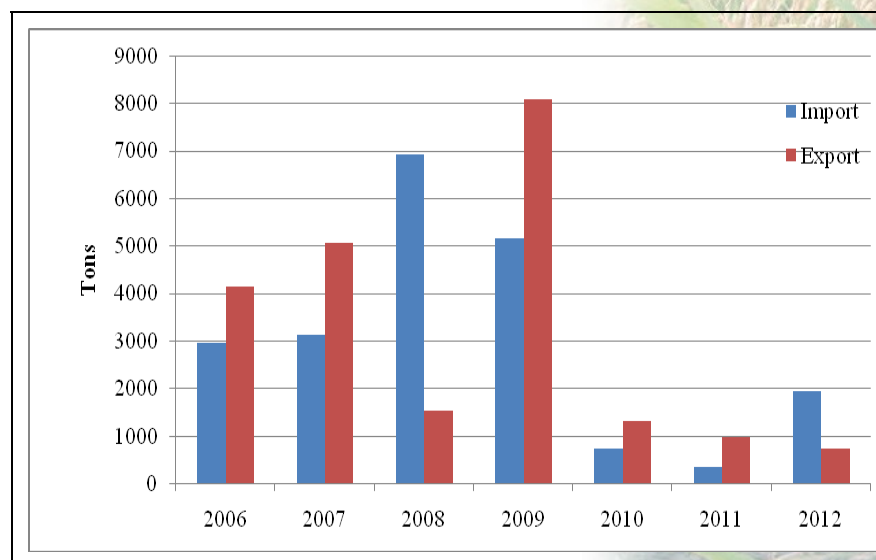
Vertical linkages in the rice value chain are improving, but there is still room for further improvement. Seasonal feeder roads have been constructed in most irrigation schemes thereby facilitating flow of rice and other commercial goods. However, storage facilities are limited to bulk milled rice. Lack of timely market information also affects effectiveness of input suppliers from being able to deliver seeds and other inputs at the right volumes and price, and farmers from getting the knowledge needed to make informed investment decisions. The horizontal linkages are also improving although there is lack of coordination among various players. In the recent years, most irrigation schemes, often with projects and NGO support, have revitalized the WUAs and formed Cooperatives, which could be strengthened and used as a basis for input supply, marketing and a nucleus for rice value chain development.

It is therefore important to ensure that the rice markets are efficient and effective by providing market information at the right time; that MBS enforces the rice standards in the country; and that transportation, storage and milling capacity and other business development services are improved.

2.6 Rice Exports and Imports

Rice exports and imports fluctuate considerably from year to year, as evidenced by Figure 3 but had an overall declining trend between 2006 and 2011. Exports of rice declined sharply in 2008 but then picked substantially in 2009, reaching a peak of around 8,000 tons and earning approximately US\$11 million. Since then, exports have declined drastically to less than 1,000 metric tons in 2011. Malawi imported approximately 330 tons of rice in 2011 at a cost of around US\$312,000. This is a considerable decline from previous years. The quantity of rice imports peaked in 2008 at around 7,000 tons but the highest value of imports reached its peak in 2009 at almost US\$4 million. Imports are mainly from the USA, India and South Africa.

Figure 5: Rice Exports and Imports, 2006 - 2012



Source: ITC/UN Comtrade Statistics

Table 7: Strategic Pillars and Objectives of the National Rice Development Strategy

Strategic Pillar	Strategic Objective
Governance and Institutional Framework	To increase coordination and collaboration amongst stakeholders throughout the rice value chain
Management of Farmers' Organisations	To enhance the ability of cooperatives to improve farmer livelihoods
Production Support	To support increased productivity for smallholder rice farmers
Processing and Marketing	To develop a strong rice market fueled by demand and the production of value-added products

3.3.1 PILLAR ONE: Governance and Institutional Framework

The NRDS aims at providing an adequate institutional framework to mobilize sufficient resources to achieve its objectives in rice production. Lessons learnt from other countries indicate that only those with well institutionalized NRDS have been effective in the rice industry development. At present, various stakeholders actively involved in rice production are not well coordinated. There is need to harness stakeholders together in a forum for more interaction and collaboration to enhance implementation of the NRDS.

As such, the creation of an effective governance and institutional framework is key to ensuring that the rice strategy is implemented effectively both today and into the future. The right governance

3 THE NATIONAL RICE DEVELOPMENT STRATEGY

The National Rice Development Strategy is therefore aimed at dealing with the challenges articulated in the previous sections while exploiting the existing potentials in the subsector.

Vision

To create a vibrant rice value chain that contributes significantly to household wealth creation and national economic growth.

Mission

To increase household income, national food security and export earnings through sustainable rice production, marketing and utilization.

3.1 Strategic Objectives

The overall objective of the NRDS is to *increase rice production and productivity in Malawi*.

3.2 Specific Objectives

- To increase coordination and collaboration amongst stakeholders throughout the rice value chain
- To enhance the ability of cooperatives to improve farmer livelihoods
- To support increased productivity for smallholder rice farmers
- To develop a strong rice market fueled by demand and the production of value-added products

3.3 Strategic Pillars

In order to realise the above objectives, the following strategic pillars have been aligned to the specific objectives as shown below:

Although both exports and imports are declining, Malawi has the potential to expand domestic rice production in order to substitute imports and increase exports of aromatic rice varieties. Two ambassadors independently made the following statements: “*If I was asked to offer advice on what crop that can do well apart from tobacco, I would say **Malawi rice** is very good. What is needed is just to **increase production** and then markets can be found outside*”, said Nishioka, Japanese Ambassador to Malawi (reported by The Nation, December, 2013). “*Mzuzu Coffee is the best and **Karonga Rice** is also one of the best in the world. If this country can **increase production** of these crops, then markets can easily be found. If a country produces in small quantities, it becomes difficult to attract buyers*”, said Hejun, Chinese Ambassador to Malawi (reported by The Daily Times, December, 2013). These statements attest to the fact that Malawian rice has huge potential for export markets as long as the country can increase its production levels in a consistent manner.

2.7 Consumer Preferences and Rice Demand Projection

There are many factors that determine consumer preferences for rice in Malawi. These include aroma, cost, quality and cooking characteristics, among others. Most consumers prefer non-parboiled, whole grain, medium to bold grain that is non-sticky and swells when cooked. White colour rice grains are more preferred than other colours. Thus, Kilombero and Faya 14M69 are highly preferred by most consumers than other types. However, a wide range of parboiled imported rice is also available in the urban markets, but it is

of second choice to many consumers, and it is relatively more expensive.

Between 2006 and 2011, per capita rice consumption in Malawi was estimated at between 7 and 9 kg/person/year. On average, a Malawian consumed about 8 kg of rice per year between 2006 and 2011 (Table 4). This is very low consumption that offers an opportunity to expand production to increase local per capita consumption.

Table 4: Projected per Capita Rice Consumption in Malawi, 2006-2011

Year	Production (tons)	Imports (tons)	Exports (tons)	Gross supply (tons)*	Net supply (tons)**	Projected Population (persons)* **	Per capita consumption (kg/person/year)
2006	91,450	2,952	4,134	94,402	90,268	12,757,883	7
2007	113,166	3,125	5,054	116,291	111,237	13,187,632	8
2008	114,885	6,920	1,528	121,805	120,277	13,630,164	9
2009	135,988	5,160	8,071	141,148	133,077	14,085,345	9
2010	110,106	726	1,297	110,832	109,535	14,553,011	8
2011	117,733	331	970	118,064	117,094	15,033,724	8
Aver-	113,888	3,202	3,509	117,090	113,581	13,874,627	8

*Gross supply = Local production + Imports.

**Net supply = Gross supply – Exports.

***Projected population by NSO.

- The Government should include and buy rice to form part of its strategic food reserves.
- Strengthen farmer organizations and common interest groups in rice marketing to offer services to its members.
- Encourage warehouse receipt system for rice farmers.
- Create fair competition from imported rice by enforcing rice standards through MBS.
- Advocate for ICT market/price oriented technologies for speedy and timely market information.
- Identify and exploit value addition opportunities.



2.8.2 Farm Inputs and Equipment

- Facilitate accessibility and affordability of farm inputs and equipment;
- Develop appropriate farm tools and equipment to reduce drudgery;
- Ensure that the GoM plays a key role in rice variety development, maintenance and seed production in partnerships with the NRDP stakeholders.

2.8.3 Credit Support

- Support farmers to access affordable credit through associations and cooperatives.

2.8.4 Infrastructural Development

- Improve roads and transport facilities in rice growing areas;
- Construct and maintain major irrigation infrastructures;
- Provide and strengthen health services in rice growing areas to curb waterborne diseases;
- Encourage private sector partnerships in rice processing;
- The cess collected from rice will be ploughed back to rice growing areas for infrastructural development;
- Farmers will be represented in cess committees
- Undertake environmental impact assessment and audit for large scale rice investments.

2.8.5 Marketing structure improvement

- The government should encourage increased private sector participation in the marketing of rice through public-private sector partnership.

Table 5: Projected Local Rice Demand, 2014-2018

Year	Projected Population (persons)	Projected per capita rice consumption (kg/person/year)		
		8 kg	16 kg	24 kg
Required tons of rice to meet local per capita demand				
2014	16,559,038	132,472	264,945	397,417
2015	17,101,849	136,815	273,630	410,444
2016	17,663,620	141,309	282,618	423,927
2017	18,244,451	145,956	291,911	437,867
2018	18,844,705	150,758	301,515	452,273
Average	17,682,733	141,462	282,924	424,386

Table 5 shows the projected local rice per capita demand between 2014 and 2018 based on the current estimated per capita consumption of 8 kg/person/year, double and triple the current per capita consumption to 16 kg/person/year and 24kg/person/year, respectively. The average local demand for rice will be 141,462 tons, 282,924 tons and 424,386 tons per year, respectively.

Table 6: Projected Rice Production Quantities

DIS- TRI	KA- RONGA	CHIKH WAWA	NSAN- JE	MACH INGA	ZOM- BA	NKHOT AKOTA	SALI- MA
YE AR	PRODUCTION ESTIMATES (MT)						
2015	9,282,631	9,465,000	580,000	490,000	3,775,200	2,850,000	430,000
2016	11,486,527		600,000	545,000			482,000
2017	13,873,143		620,000	566,000	4,815,000	3,464,600	497,000
2018	14,634,359		630,000	567,000	5,408,000	3,479,000	546,100
2019	16,157,308	14,517,000	650,000	584,000	5,408,000	3,567,000	565,000

Source: District Agriculture Offices

The estimated projections were calculated based on the previous recorded tonnage from the sampled districts and their respective rice schemes; Karonga: (Hara, Chonanga, Wowve, Miyombo and Lufilya), Chikhwawa: (Nkhate), Nsanje: (Muona) Nkhotakota: (Bua, Kamomba, Viwale, Kabyanga and Mpamantha), Salima: (Lifuwu and Mpasanjoka), Machinga: (Domasi, Mkwinda) and Zomba: (Likangala, Khanda, Njala and Segula).

The estimated projections from across the sampled districts suggest an increase in the tonnage of rice over the next five years. This could be attributed to the expected decrease in the prices of improved rice seed varieties, increased access to extension services and available

and large domestic buyers (processors, retailers, etc). This creates a great deal of uncertainty for rice farmers because they are never sure of their market.

Lack of quality storage is another major constraint for farmers in accessing markets. Farmers have no place to store their rice, so they must sell it as quickly as possible after harvest. In addition, farmers have little access to credit and are very cash-constrained come harvest time, so this puts further pressure on the need to sell rice quickly.

2.8 Policy Issues in the Rice Sub-sector

The rice sub-sector is guided by the Crop Production Policy and other existing GoM policy documents such as the Food Security Policy (2006). Currently, per capita consumption is very low, so too are exports. There is need to focus on policy instruments that enhance productivity and production in order to achieve self-sufficiency, import substitution and exports. Some of these policy instruments will include:

2.8.1 Technical Issues

- Training of researchers, extension officers and farmers on modern rice production techniques and utilization;
- Revitalize the existing training institutions to undertake capacity building in rice specific courses;
- Support and strengthen rice institutions;
- Posting of extension officers in rice growing areas and avoid high turnover of staff;
- Strengthen rice quality inspection and its enforcement.

in business management and development, so they are not able to manage the growth of the cooperative.

This issue is described more in-depth in Pillar 2 of the Strategy. The limited effectiveness of cooperatives and their management means that they have difficulty even in carrying out their core functions. They are unable to efficiently buy and market smallholder rice, which defeats their purpose.

2.7.3 Low Productivity of Smallholder Rice Farmers

Smallholder rice productivity is extremely low in Malawi compared to its neighbours. Average yields in Malawi are around 1,800 kg/ha, compared to 2,300 kg/ha in Zimbabwe and 4,900 kg/ha in Kenya⁴. This means that smallholder incomes are reduced because they are able to produce and sell less rice.

Smallholder productivity is constrained by a lack of access to capital in the form of credit to purchase the appropriate quantity of inputs, and a lack of access to physical capital to mechanize rice production. Yields are also constrained because of limited access to irrigation as well as limited knowledge of best agronomic practices for rice production.

2.7.4 Limited Access to Markets for Smallholders

Farmers have difficulty accessing markets because of poor linkages with domestic buyers. As such, farmers often sell their rice to traders at a lower price than they could achieve if selling directly to processors. There are very few organized linkages between smallholder

⁴FAOSTAT

rice farmers

markets. From the data collected, availability of farm inputs positively increases the responsiveness of farmers to expanding their production by a higher margin. This suggests that availability of farm inputs is a major determining factor in increasing rice production by the farmers. However, this also suggests, farmers production habits are product oriented.

Figure 6: Total Projected Rice Tonnage

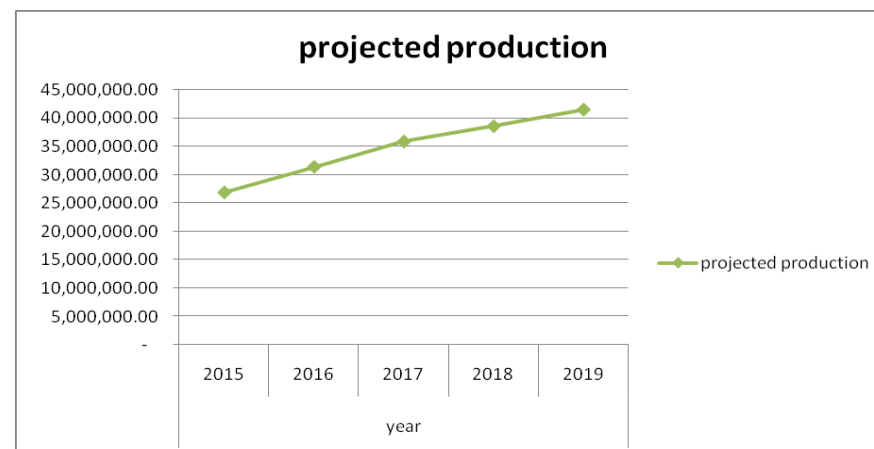
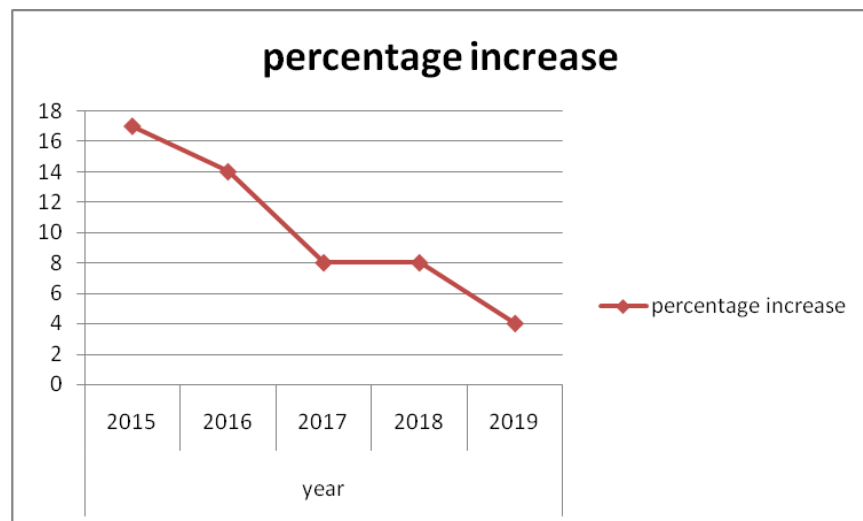


Figure 7: Projected Rice Production in Percentage



Although the projected rice production suggests an increase in the tonnage of rice produced per proceeding year, the increase is expected at a decreasing average rate of 3 % with a highest expected increase from 2014 to 2015 at 17 % followed by a 14% increase in 2016 and a lower expected percentage increase of 6% in 2018. The decreasing trend can be seen from the Figure 7 This can be attributed to lower land holding size of the farmers which therefore limits the productivity of the land in the long run, poor access to extension services and improved rice varieties.

2.7 Main Challenges in the Rice Sector

The main challenges in the rice sector can be divided into four key areas:

- i. Lack of coordination amongst different players in the value chain
- ii. Poor functioning of the cooperatives

iii. Low productivity of smallholder rice farmers

iv. Limited access to markets for smallholders

2.7.1 Lack of Coordination in the Value Chain

There is little coordination amongst the different actors in the rice value chain, such as NGOs, smallholders, cooperatives, processors, traders, etc. These different groups rarely work together to develop a structured market in the rice sector. As such, the linkages in the value chain are weak and interactions amongst players are often ad hoc and inefficient, which reduces overall welfare and creates a great deal of inefficiency throughout the rice sector.

The lack of coordination also translates into redundant and unnecessary investment in certain areas. Because NGOs do not coordinate, they often engage in the same activities, such as farmer training. NGOs efforts are often redundant because of this duplication of services. This is a waste of donor money and time. Efficiency could be greatly enhanced if NGOs coordinated their efforts and investments to lead to the maximum benefit.

2.7.2 Poor Functioning of Farmer Organisations

Rice farmer organisations are extremely important for improving the well-being of smallholder rice farmers because they allow farmers to achieve better prices for their rice and benefit from collective bargaining. However, few rice farmer organisations are functioning efficiently. This is for a variety of different reasons. The management at cooperatives is often ineffective and unable to properly guide the activities of the cooperatives. Managers typically have little training