Situation And Challenges Of Food Production Policy In Kenya: Supply, Demand and Import of Rice

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Introduction

Kenya

i. Agriculture contributes:

a. 24% of GDP

b. 60% both formal and informal employment

ii. Rice:

a. Supports over 500,000 rural households in production agro-chemical enterprises, machinery owners and operators, millers, traders, government workers to mention a few

b. 75-80% grown in Mwea Irrigation Scheme (MIS)

c. Over Kshs. 3bn earnings realised in Mwea

d. Provide 80% - 85% household's income

e. Faced with local marketing challenges due to un balanced imports

Kenya rice situation

- Rice is the third most important cereal crop after maize and wheat
- Per capita consumption growth is 12% per annum as compared to 1% for maize and 4% for wheat
- National rice consumption stands at approx. 510,000 tons against a production of 110,000 metric tons
- The deficit is met through imports costing over Ksh. 30.0 billion annually

Introduction cont'd

- High potential exists for development of rice crop with 1.3million ha for irrigated rice &1.0m ha for Rainfed upland and lowland
- Rice has been prioritized as an important staple food crop to develop
- International partners and Pan-African initiatives such as FAO, NEPAD, CAADP, FARA, ECARRN of ASARECA and EAC have shown interest in research and development of rice for the benefit of the communities living in sub Saharan Africa

Coalition for Africa Rice initiative (CARD)

- During the TICAD IV conference 0f May 2008, the Coalition for Africa Rice development (CARD) initiative spearheaded by JICA and AGRA was launched to encourage vibrant economy in Africa
- The main objective of CARD is to double rice production in Sub – Saharan Africa in ten years starting from2008 through increased and better coordinated investment and assistance
- On 29th October 2008, the CARD Secretariat was formed and launched in Nairobi

Implementation conditions for CARD

- The Governments to commit themselves to the development of rice as a priority crop for food security and poverty alleviation
- Every participating country to develop a National Rice Development Strategy(NRDS)
- The NRDS to be adopted by the Government and stakeholders as the guiding document for the development of rice in the participating countries
- The NRDS to be aligned to CAADP and be prioritized in the CAADP pillars

Rice growing regions and ecologies

- Five regions have been found suitable for rice growing:- a) Coast

  b)Central

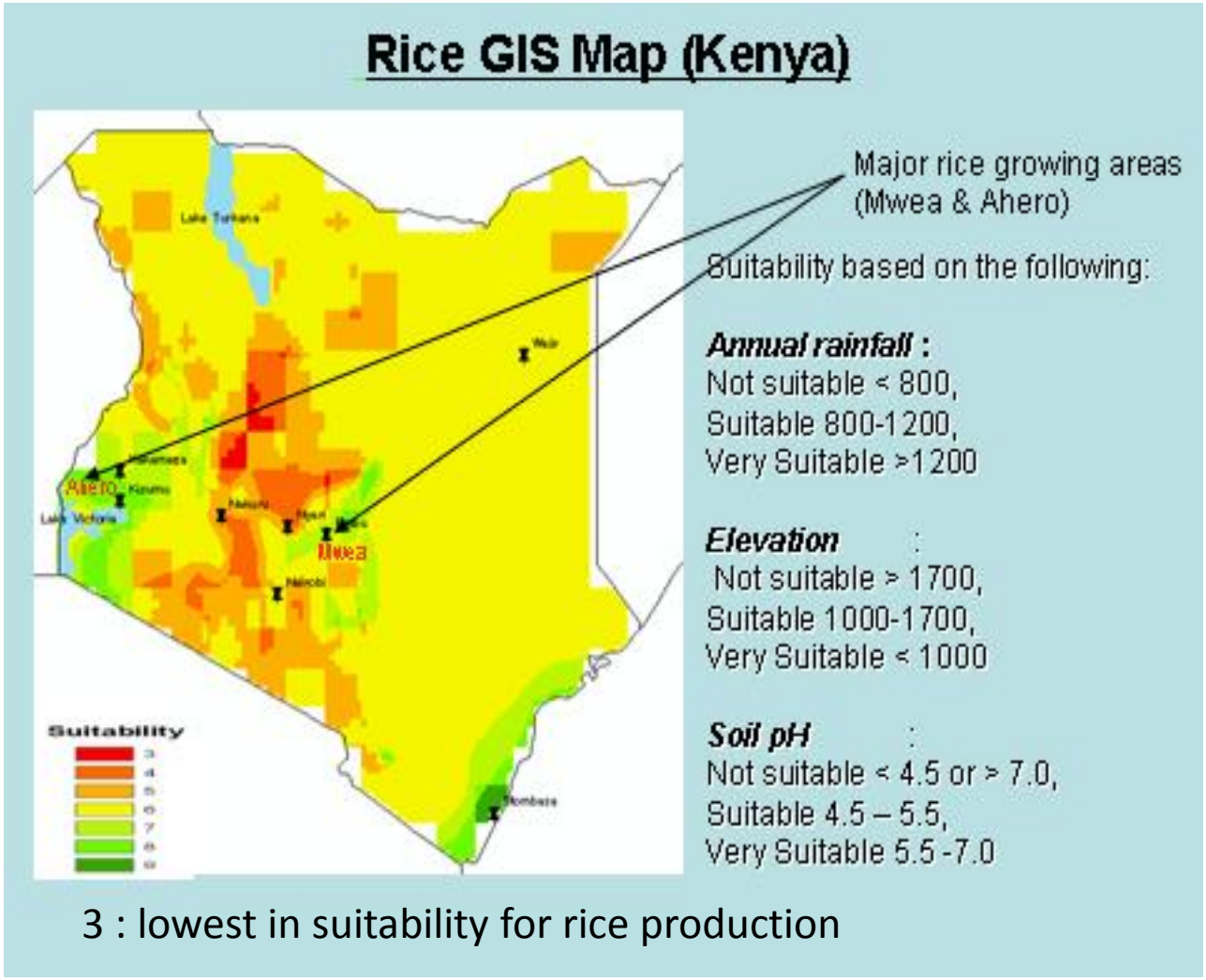
  c) Marakwet in RVP

  d) Western Province

  e) Nyanza

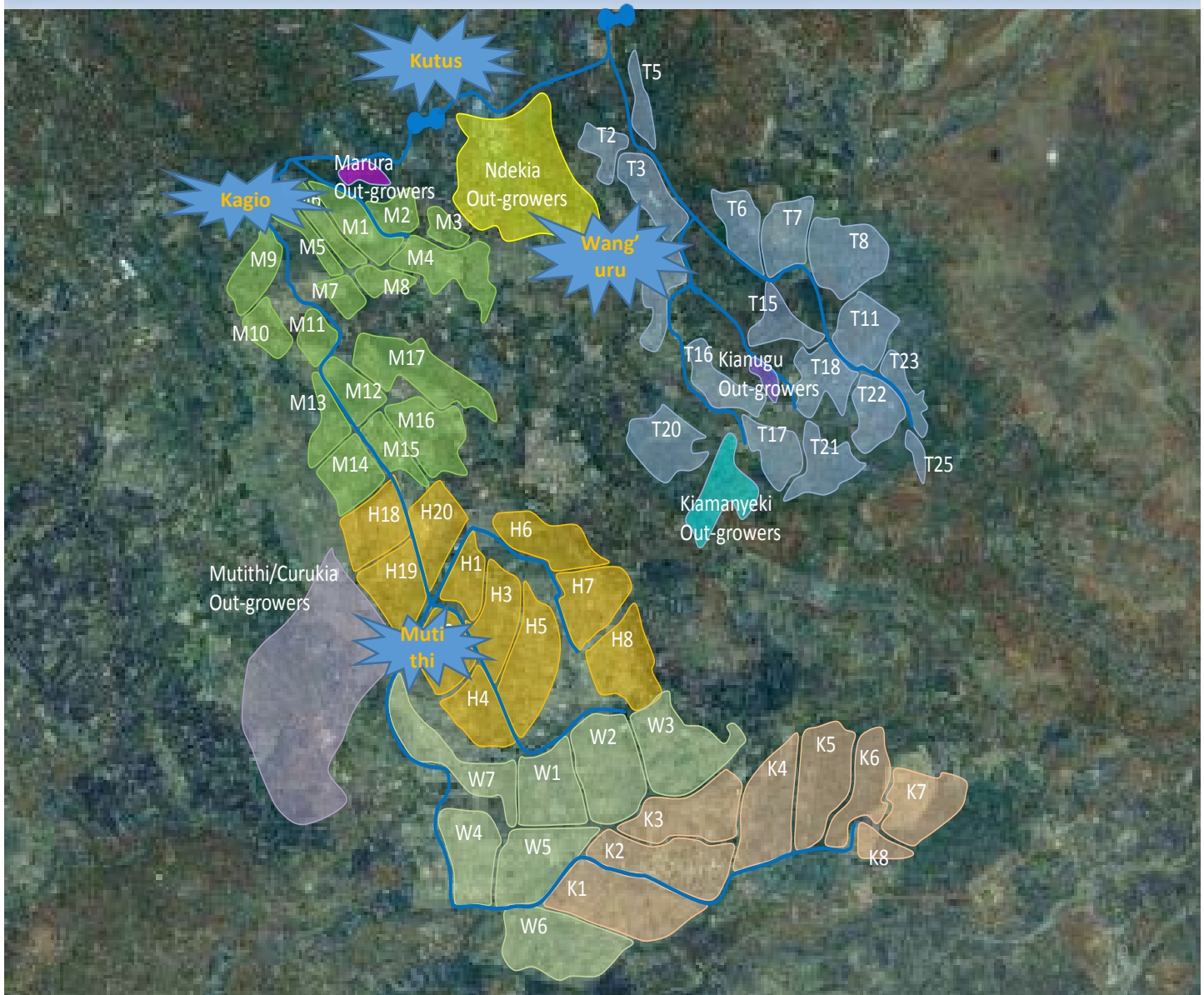
- Irrigated, Rain fed upland and Rain fed Lowland

MAJOR RICE GROWING AREAS IN KENYA



3 : lowest in suitability for rice production

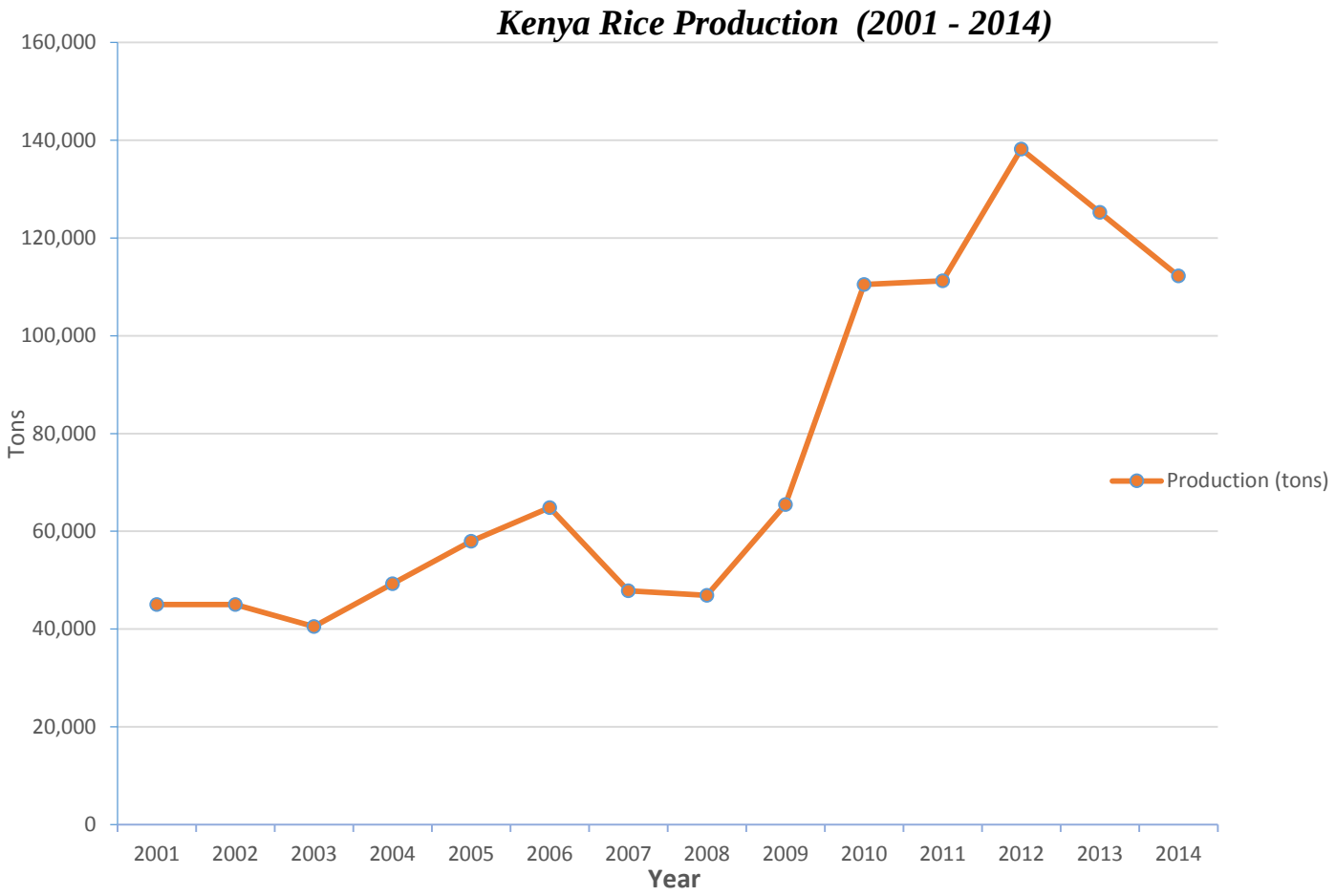
MIS GIS Map - Location of the Units in Various Sections of the Mwea irrigation Scheme



The National Rice Development Strategy (NRDS)

- NRDS developed in 2008 headed by the MOA in collaboration with stakeholders in the sector and development partners
- NRDS overall goal is to improve food security and income of Kenyans through sustainable rice production, marketing and utilization
- NRDS vision is to have a vibrant sector that contributes to improved livelihoods, food security and economic growth.
- NRDS aims to achieve its objectives through increased rice production, productivity, value addition and competitiveness.
- Production is supported through the existing Government policy documents on food security, such as SRA, NFNSP ,ASDSP, Vision 2030 and the Kenya constitution.,

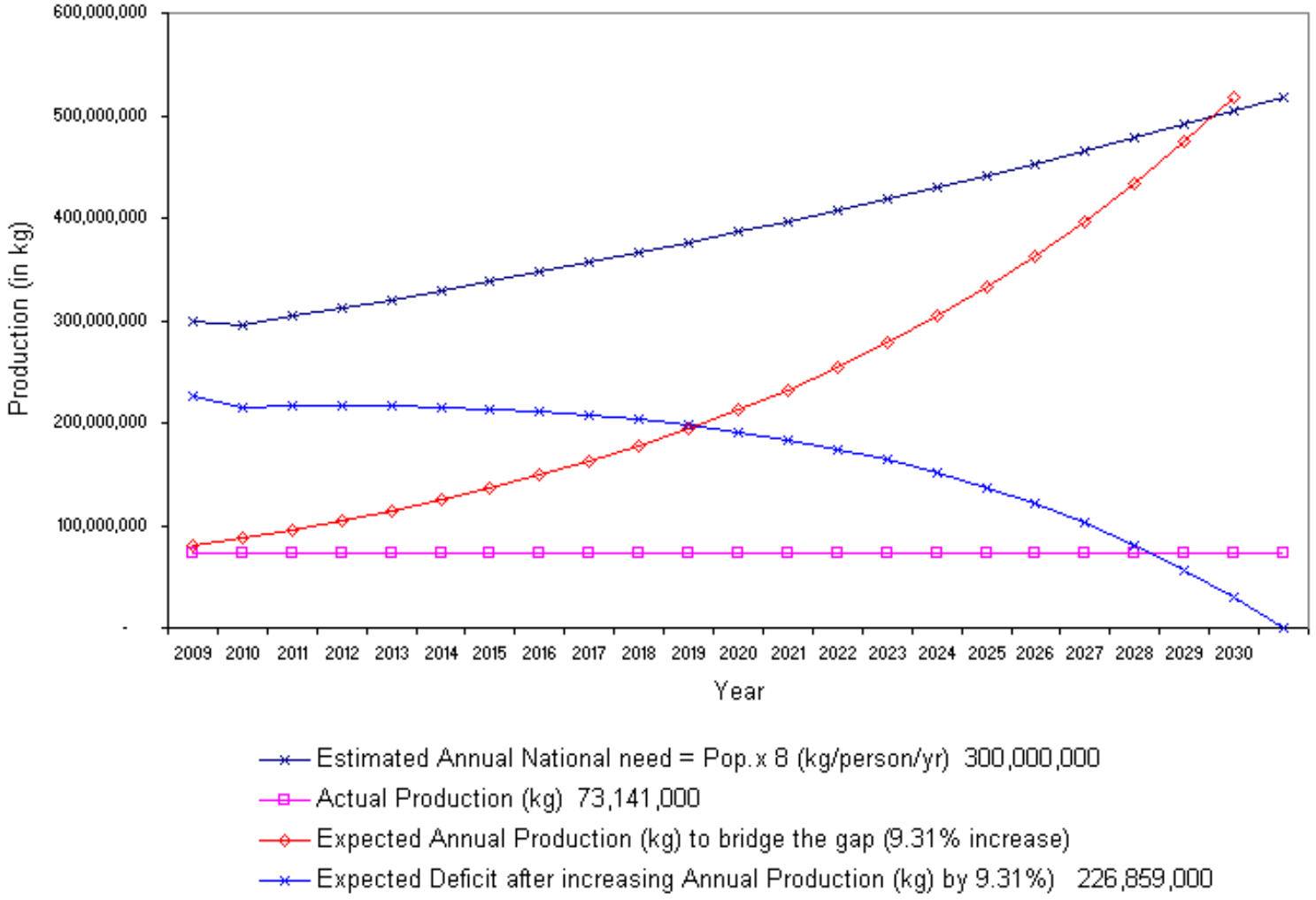
Production Statistics



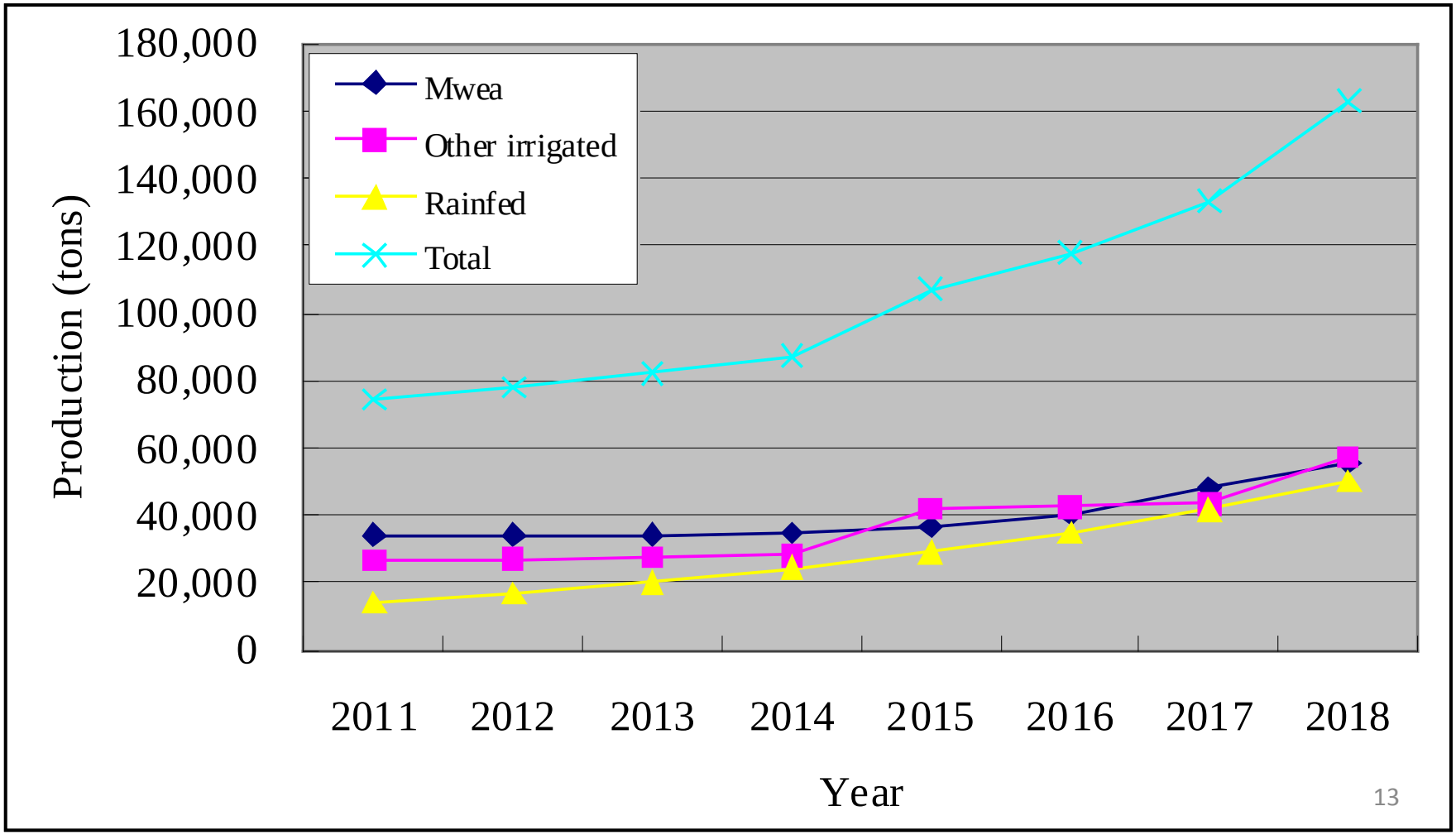
Source: Economic Review of Agriculture (ERA, 2015), National Cereals and Produce Board; Department of Land, Crops Development and

Management (various years); and U. S. Department of Agriculture (2014)

Projections on production and consumption of rice by 2030

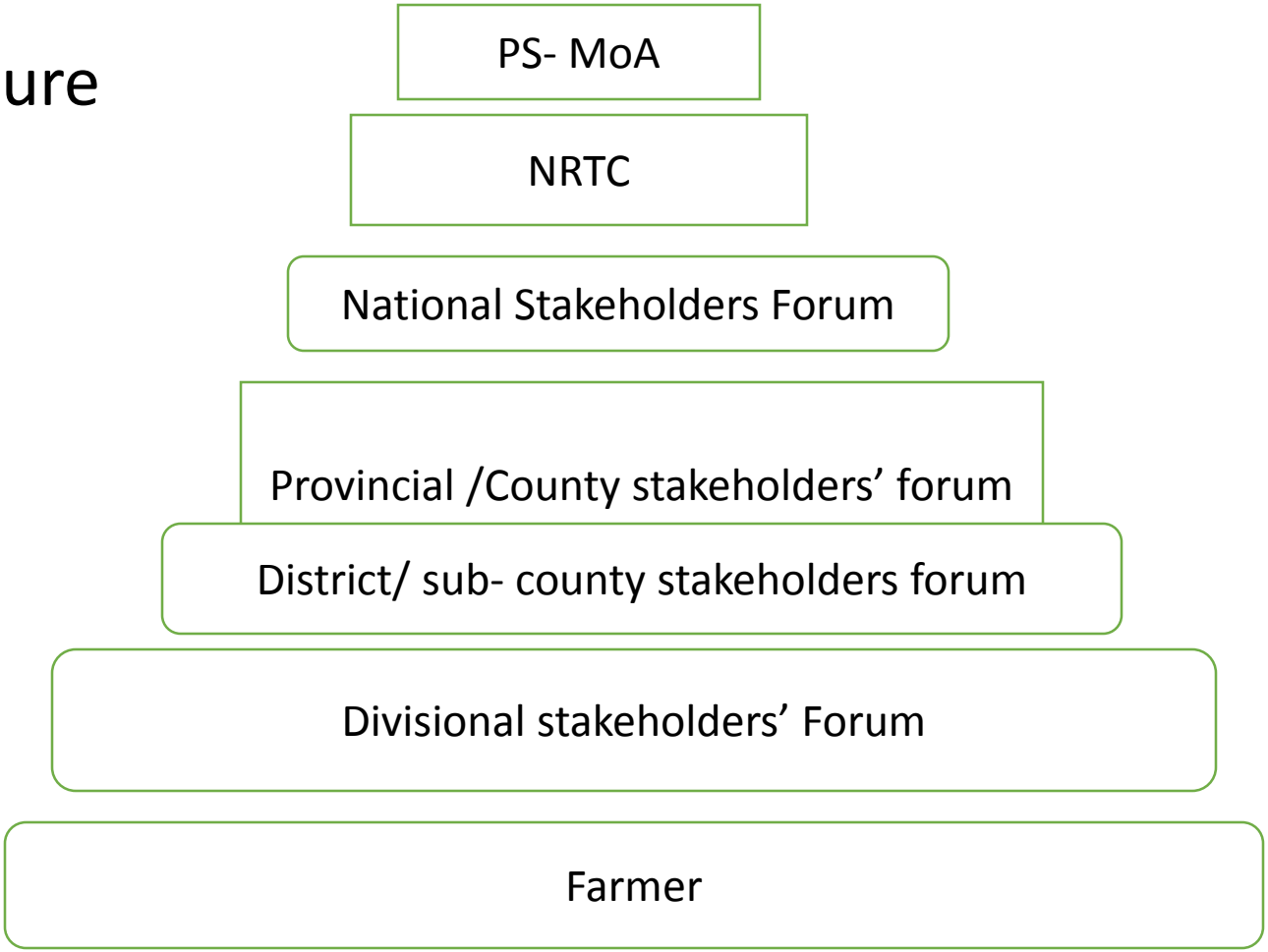


Expected Road Map for NRDS Projection (Mwea, other irrigated and Rainfed)



Implementation structure of NRDS

- Structure



Kenya NRDS Priority Areas

Kenya

- Production area
- Untapped potential area
- Consumption area
- Research station
- Project sites
- Seed distribution facilities

Major constraints and challenges

- Lack of a viable certified seed production system Inadequate seed supply
- Inadequate irrigation Infrastructure
- Low water harnessing skills
- Low skills/knowledge on rice crop management in newly opened areas
- High costs of inputs and machinery especially for land preparation
- Lack of capital and credit provision/facilities
- Incidences of pests and diseases especially blast
- Lack of value addition technologies e.g. good quality milling, parboiling, beverages and cookies
- Lack of profitable crop after rice

Need for appropriate machinery

Issues of Drudgery and Traction need to be addressed

A farmer in marakwet district weeding a crop of NERICA Rice

Proposed strategies

To increase Rice productivity

- Develop high yielding, pest and disease resistant varieties
- Capacity building of farmers and extension staff on appropriate agronomic practices, agro-processing and value addition
- Develop resilient rice production and water harnessing and management technologies through research
- Capacity building for rice research

Reduce Field and post harvest losses by

- Appropriate utilization of post harvest technologies
- Improving harvesting, timing and post harvest handling techniques
- Developing and introducing appropriate harvesting and processing equipment

Support to extension and advisory services

- Developing, packaging, disseminating and promoting appropriate rice cultivation technologies in agronomy, crop protection and biotechnology
- Strengthening and improving farmer – extension - research linkages
- Facilitating private sector participation in technology development and transfer

Proposed strategies cont.

Expand area under rice cultivation

- Improving and expanding irrigation infrastructure
- Increasing the area under irrigated and rain-fed rice production
- Enhance rain water harvesting for rice production
- Improving appropriate mechanization techniques for all rice operations

Improve Farmers access credit and high quality inputs

- Ensuring appropriate germplasm and variety maintenance
- Facilitating adequate production, distribution and marketing of good quality seeds.
- Facilitating adequate supply and marketing of high quality inputs.
- Ensuring affordable credits to farmers.

Flooded Mwea Thiba river indicating the dire need to increase irrigation water harnessing

Supplemental Irrigation NERICA At Farmers Field

Soya after rice at MIAD to enhance irrigation water productivity marketing and processing still a hindering block

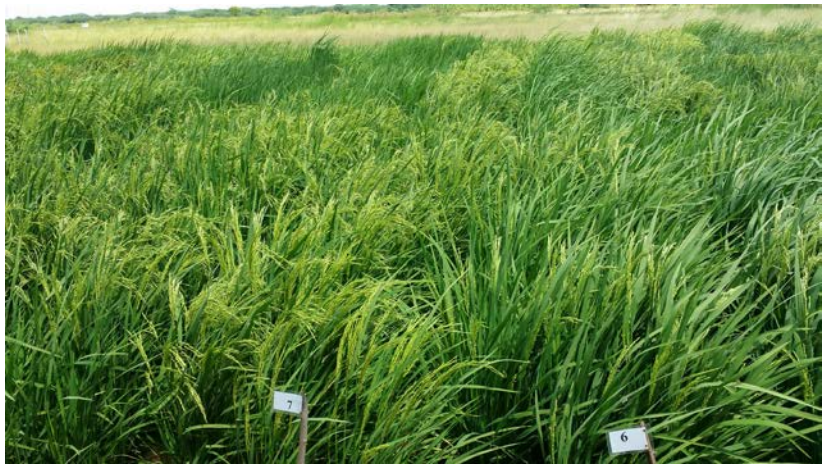
SRI technology - Rice Yields and WUE have Increased

NIB hybrid and salinity tolerance rice variety research at Mtwapa in Mombasa and Hola and Bula in Tana region

Hybrid variety development trial at Mtwapa Monbasa

Bura rice variety and salinity trial

Hola and Bura irrigation schemes salinity rice trials



Mechanical Harvesting of rice in Mwea introduced

Achievements to date

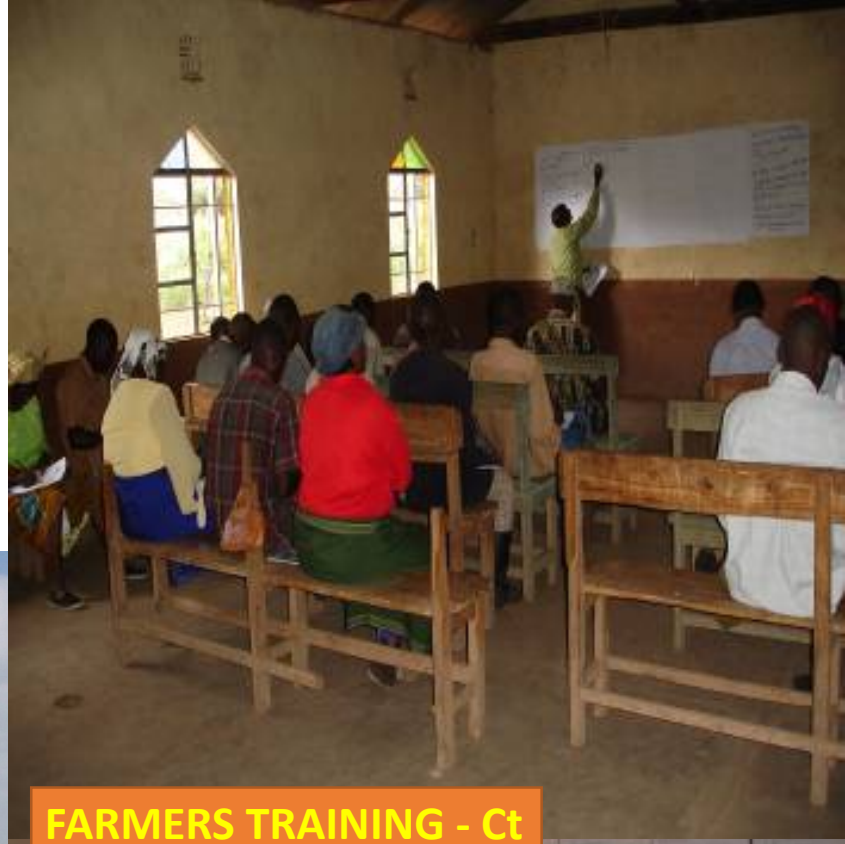
- Formation of the National Rice Technical Committee(NRTC)
- NRDS launched on 28th -29th October, 2009
- Developed an implementation framework
- Establishment of Rice Promotion Unit in the Ministry on 10th June, 2010
- Training of officers both in -country and outside is taking place but there is need for further training for officers at MSc. and PhD

Achievements cont'd

- Four NERICA varieties developed and released in April 2009
- Fifteen milling machines have been distributed to beneficiary farmer groups to facilitate value addition
- Establishment of RICEMAPP
- Consultative seed committee formed
- Basic Seed of four NERICA Varieties and irrigated rice varieties is under production by KARI, MIAD
- Formation of mechanization consultative committee
- Developed a roadmap for mechanization
- Testing of machinery and equipment with key institutions (KIRDI, JKUAT , JICA & Numerical Machines)on- going

RE-TRAINING OF DISTRICT CROPS OFFICERS ON RICE PRODUCTION SYSTEMS

NERICA-4 SEED BULKING



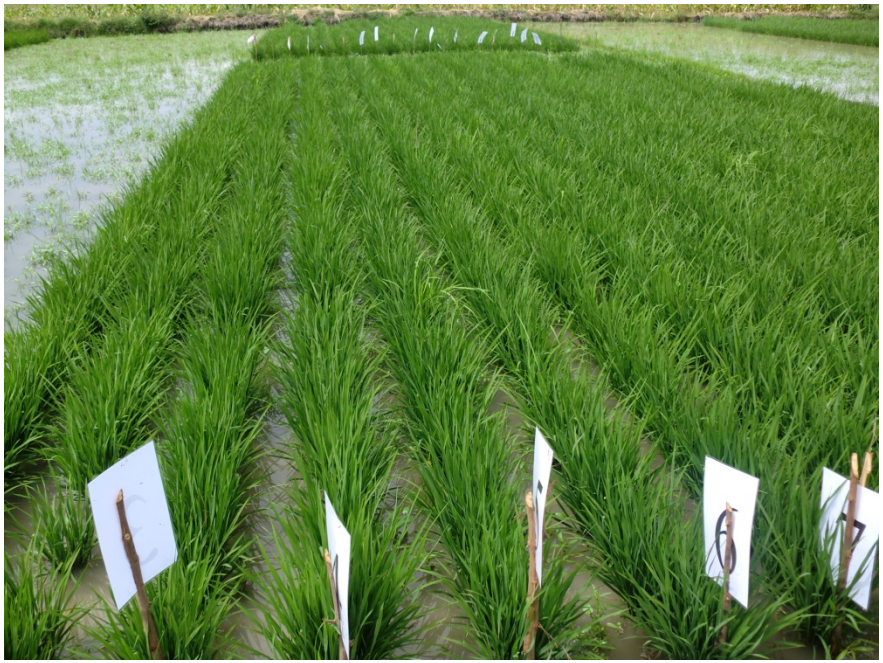
FARMERS TRAINING - Ct

Interventions

- Introduction of SRI by NIB
- RICEMAPP
  - Mechanization – increased number of combine harvesters
  - Improved SRI
- NIB World bank project – lining of canals
- NIB Rice ratooning
- Rice research and introduction in other areas – ASALs eg Bura
- Mwea rice project for water harnessing and expansion
- Seed production at MIAD and Ahero
- Training of agricultural officers
- Fertilizer subsidies

Breeder’s & Pre Basic Seed Production At MIAD and KARLO

KARI Mwea - Kirogo Farm



MIAD


KIRINYAGA – Central


BONDO - Nz


MARAKWET - RV


BUTULA - Wn

Achievements cont'd

Irrigation infrastructure development

- Lining of main canals in Mwea – reduced water loss by 30%
- Expansion of Mwea irrigation scheme (Thiba Dam) and rehabilitation of Mutithi section on going
- Revitalization of other rice schemes (Ahero, West Kano and Bunyala)
- Opening new rice irrigation Schemes such as Lower Nzoia
- Revival of Community irrigation Schemes (Gem Rae, Anyiko, Chiga, Jarajara, Kimorigo)
- Investment in new schemes on – going
- SATREPS Project completed

Achievements cont'd

- Developing and strengthening partnerships on going
  a. National Stakeholders Forum – in place
  b. Provincial/County Stakeholders Forum?
  c. District/Sub County Stakeholders Forum?
- Building and strengthening farmer associations in progress
  a. Establishment of cooperatives e.g. Anyiko & Gem Rae
  b. Establishment of the farmer platform – In the process

Priority areas of up scale and partnership for increased production and incomes

- Climate resilient Irrigation water harnessing and conveyance and application at farm level
- Improvement of water catchment areas
- Establishment of a profitable farm enterprise after rice
- Up scaling use of rice bio-products particularly husk to increase water productivity
- Enhancement of canals and paddy fields lining to reduce irrigation water deficits
- Establishment of self sustaining training and capacity building for irrigation and rice cultivation


Thank you All
and God Bless
you in Jesus