

The project on rice research for tailor-made breeding and cultivation technology development in Kenya

Impact of the joint research and way forward for the social implementation

At
MoALF&I

Science and Technology Research Partnership for Sustainable Development (SATREPS) Sponsored by JICA and GoK

Project results impact

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15/04/2014 12:27

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Super Goal

Rice varieties registered and rice cultivation technologies developed and disseminated.

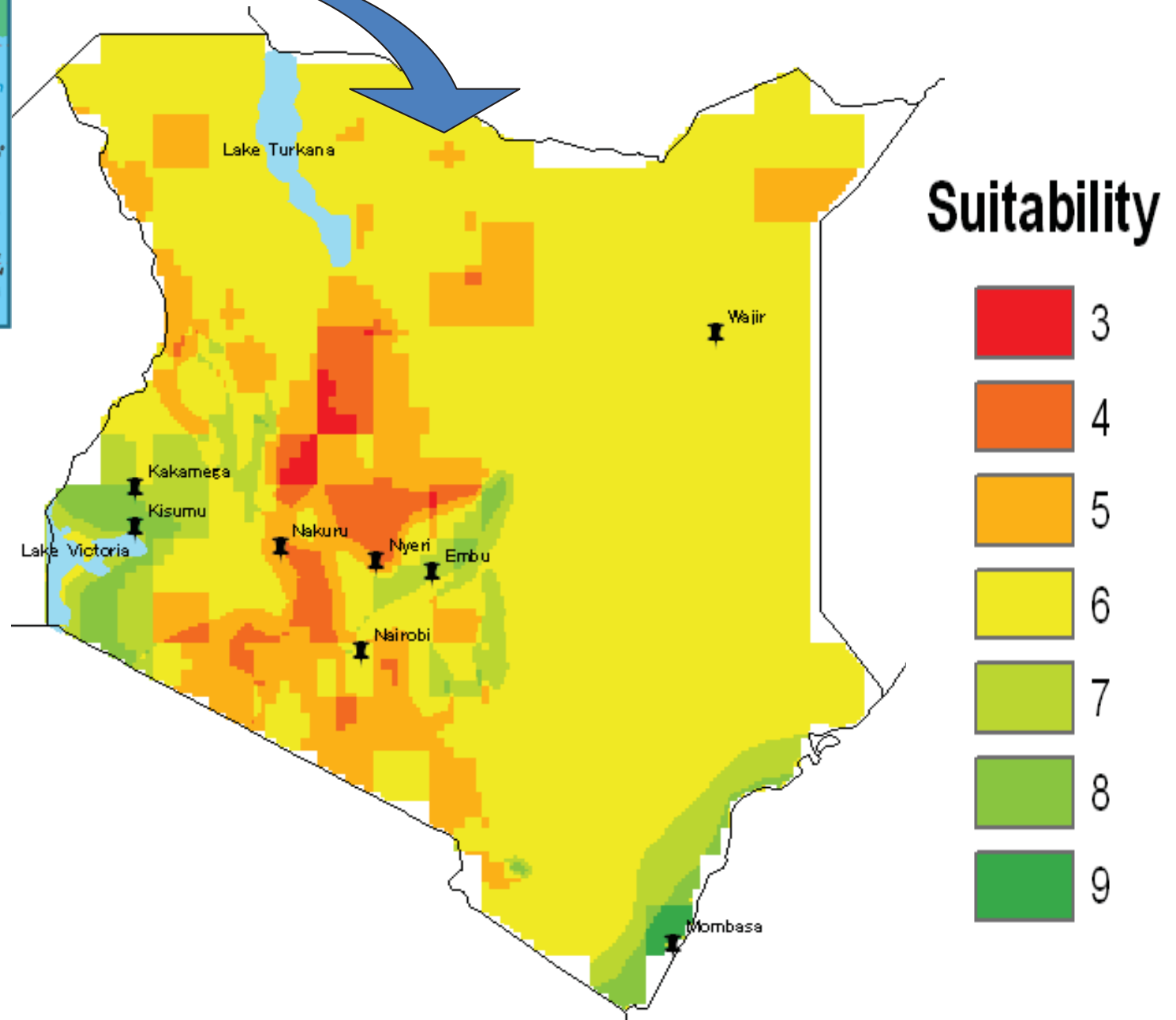
Overall Goal

Rice varieties adapted to Kenya are developed and local adaptability of cultivation technologies is verified in farmer's fields.

Project Purpose

A base of rice breeding and cultivation technology development is built; to be achieved thro' 5 outputs.

Kenya rice suitability map



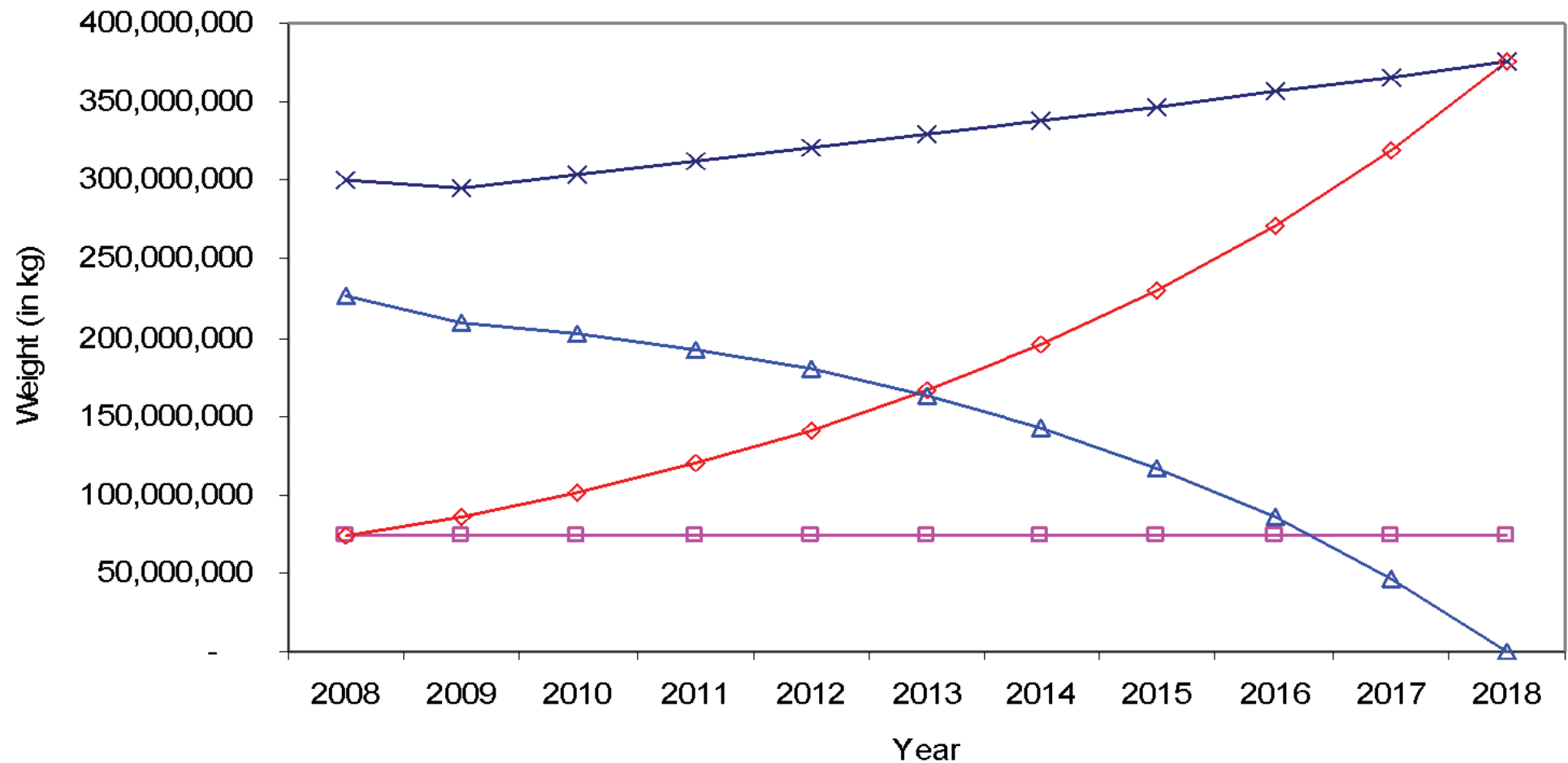
Rice status in Kenya

- Rice first introduced in Kenya in 1907
- Varieties grown in Kenya were accessions that were found to be adapted in various ecologies
- Rice regarded as an orphan or minor crop, thus was not under schedule two crops
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- Local production 149,000 mt against domestic consumption of 550,000 mt year⁻¹(MoA, 2015)

Rice status in Kenya ^{ctd}

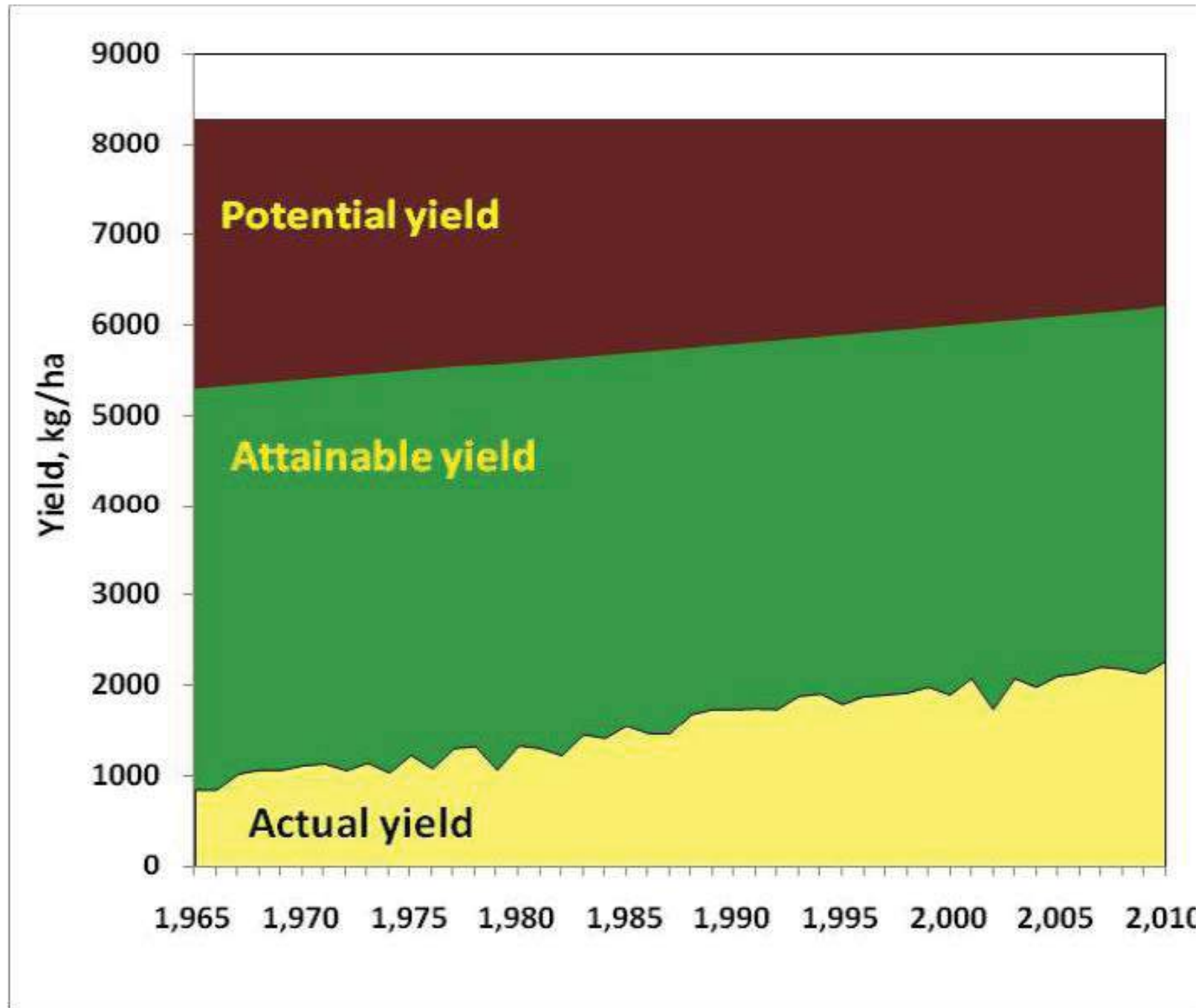
- Growth in consumption: Rice 12%, Wheat 4% & Maize 1% per annum
- Kenya imports >75% of rice to meet her requirements
- According to NRDS: Double production by 2018 and vision 2030 to be self sufficient in rice
- The current (2018-2022) food and nutritional security agenda is to progressively rise production to 406,486 MT by the year 2022
- Government has prioritized rice as one of the three food, nutritional & income security crop.

Projections on production and consumption of rice by 2018

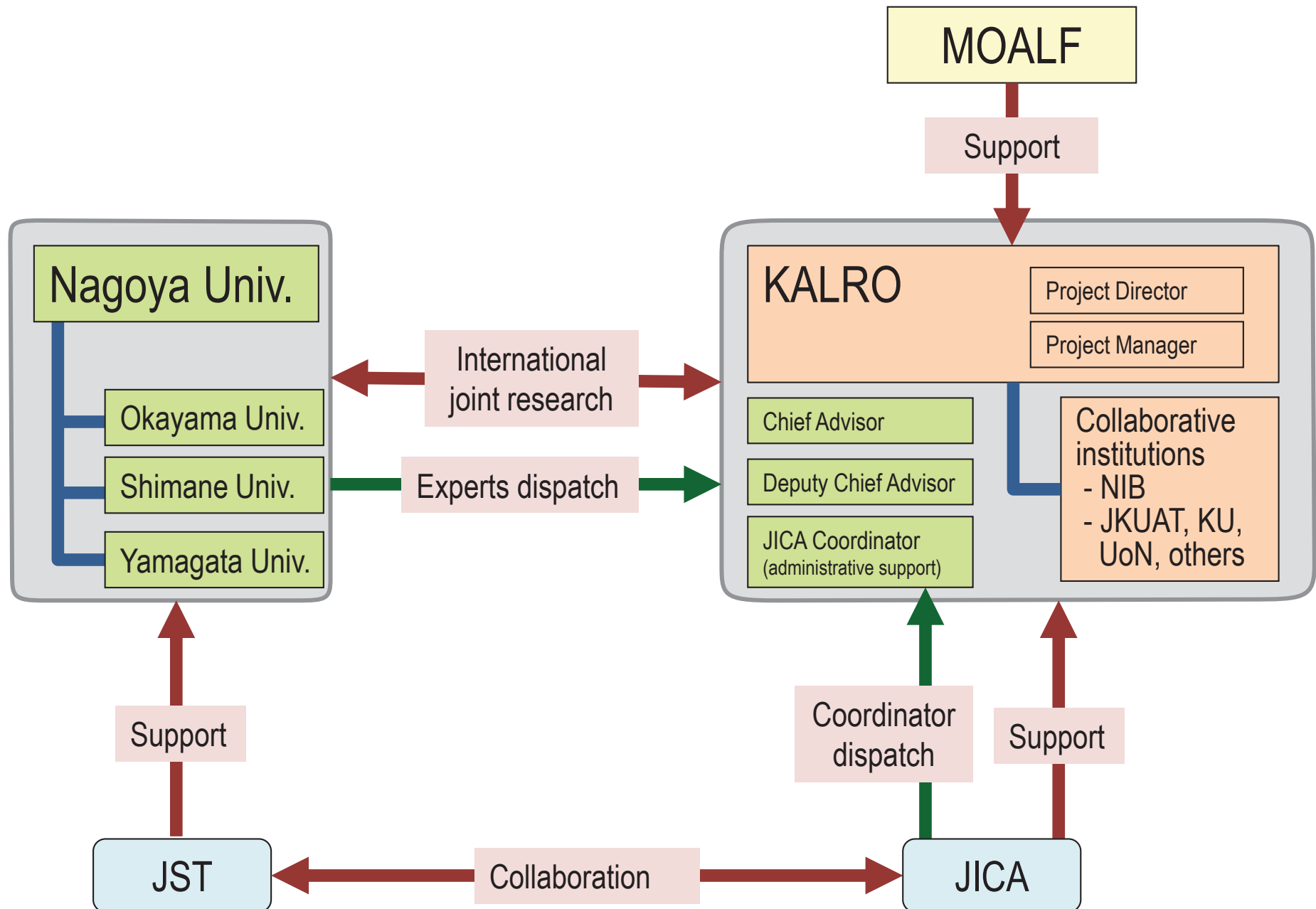


- x— Estimated Annual National need = Pop.x 8 (kg/person/yr)
- Actual Production (kg)
- ◇— Expected Annual Production (kg) to bridge the gap (17.8% increase)
- △— Expected Deficit after increasing Annual Production (kg) by 17.8%

Research ahead to feed >6 Billion mouths!



Implementation Structure



Impact of the joint research

- ✓ Conduct of tailor made research to actual situations
- ✓ Major exposure to modern research systems
- ✓ Knowledge gain in research value chains
- ✓ Handling of modern research facilities
- ✓ Expertise in equipment use
- ✓ Creation of the state of the art research systems
- ✓ Improved socio-economic wellbeing of the research and neighbouring community
- ✓ Development of superior technologies
- ✓ Change in researchers way of doing things – hands on
Capacity now built for continued rice research

Improvement of research facility



Improvement of experimental field



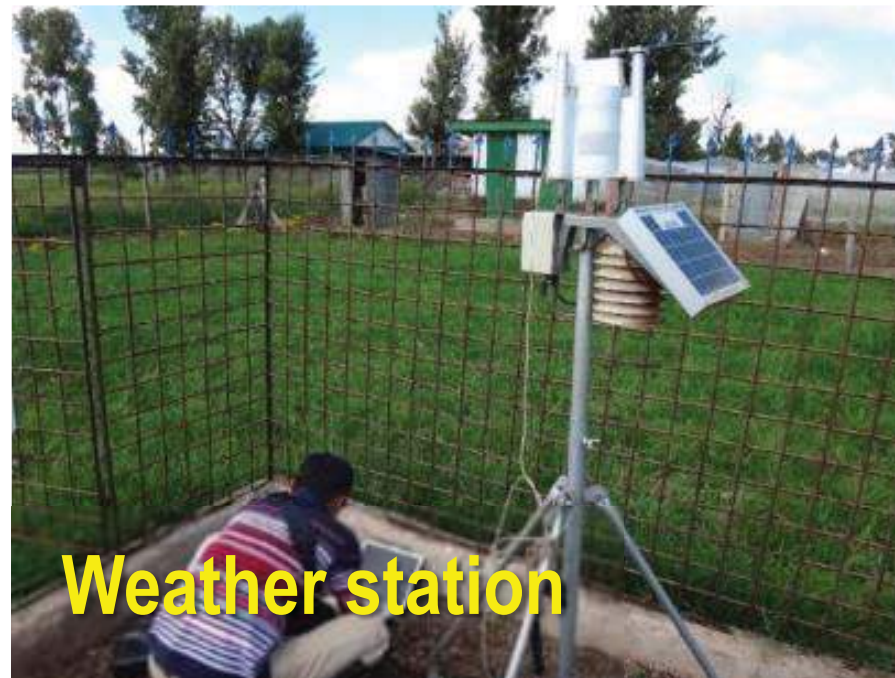
Facilities for field experiment and plant breeding



Plastic house



Breeding room



Weather station



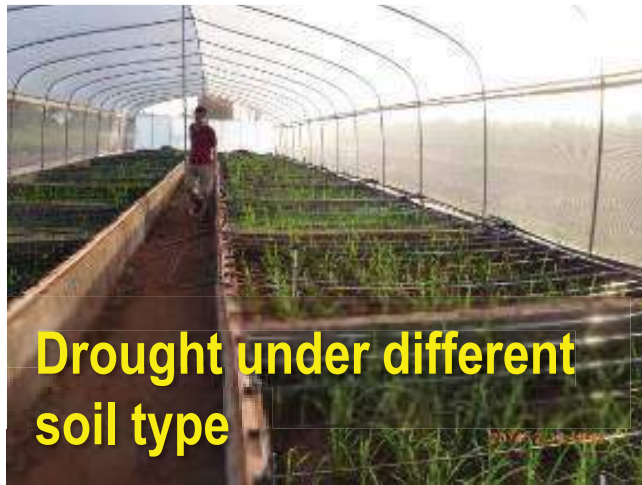
Equipment for measuring plant physiological response

Development of trait evaluation system (1)



Various important traits for Africa can be evaluated in one place at KALRO Mwea, this is quite unique

Development of trait evaluation system (2)



A research institution having such various evaluation systems is very rare