

# **Enabling Implementation of National Rice Research and Development Strategies of Ethiopia (NRRDSE)**

**Dawit Alemu**

**Chair**

**NRRDSE Task Force**

# NRRDSE formulations

- A steering committee (SC) chaired by the Hon. State Minister for Agriculture was formed
- The SC set a technical committee (TC) to draw the strategies and follow their implementation
- Members of TC are representatives from:  
MoA, EIAR, ESE, ATA, MEDA, and SG 2000

# Progress made

- NRRDSE approved in February 2010
- Rice producing regions have developed Implementation plans based on the strategy
- The national Implementation plan approved by the SC in July 2011

# NRRDSE

- **Vision:** Ensure national food security and increased farm revenue, and reduce poverty by progressively transforming the rice sector into a viable production and marketing system
- **Goal:** To increase Ethiopia's rice production from the current 0.5 million tons to 3.95 million tons by 2019

# Approaches

- Whole value chain approach (production to marketing)
- Agro ecology based interventions
- Small scale and Commercial rice production systems
- Gender responsive interventions
- Environmental Sustainability

# Measures identified

- Capacity building for research and extension systems
- Seed Systems (production and distribution)
- Fertilizer distribution & marketing
- Efficient irrigation and water management interventions
- Mechanization and improved post harvest technologies
- Finance for all actors along the rice value chain (production to marketing)
- Strengthening of policy and institutional support

# NRRDSE: Components of Implementation

- **Component 1: Rice Research, Source Seed and Capacity**

**Sub components:**

- Breeding and genetics
- Breeder and pre-basic seed maintenance and multiplication
- Pre and post harvest technology introduction and adaptation
- Rice production management
- Suggested project based activities in rice research, source seed and capacity building

- **Component 2: Rice Development and Capacity Building**

**Sub components:**

- Production and Dissemination of Rice Seed
- Rice Extension (agronomy, soil fertility, and protection)
- Irrigation and Investment in Water Control Technologies
- Pre and post harvest Mechanization Technologies including maintenance
- Strengthen the Institutional Framework and Policy support including Institutional support, marketing, finance and credit
- Suggested project based activities in rice development and capacity building

- **Component 3: Coordination and management of strategies**

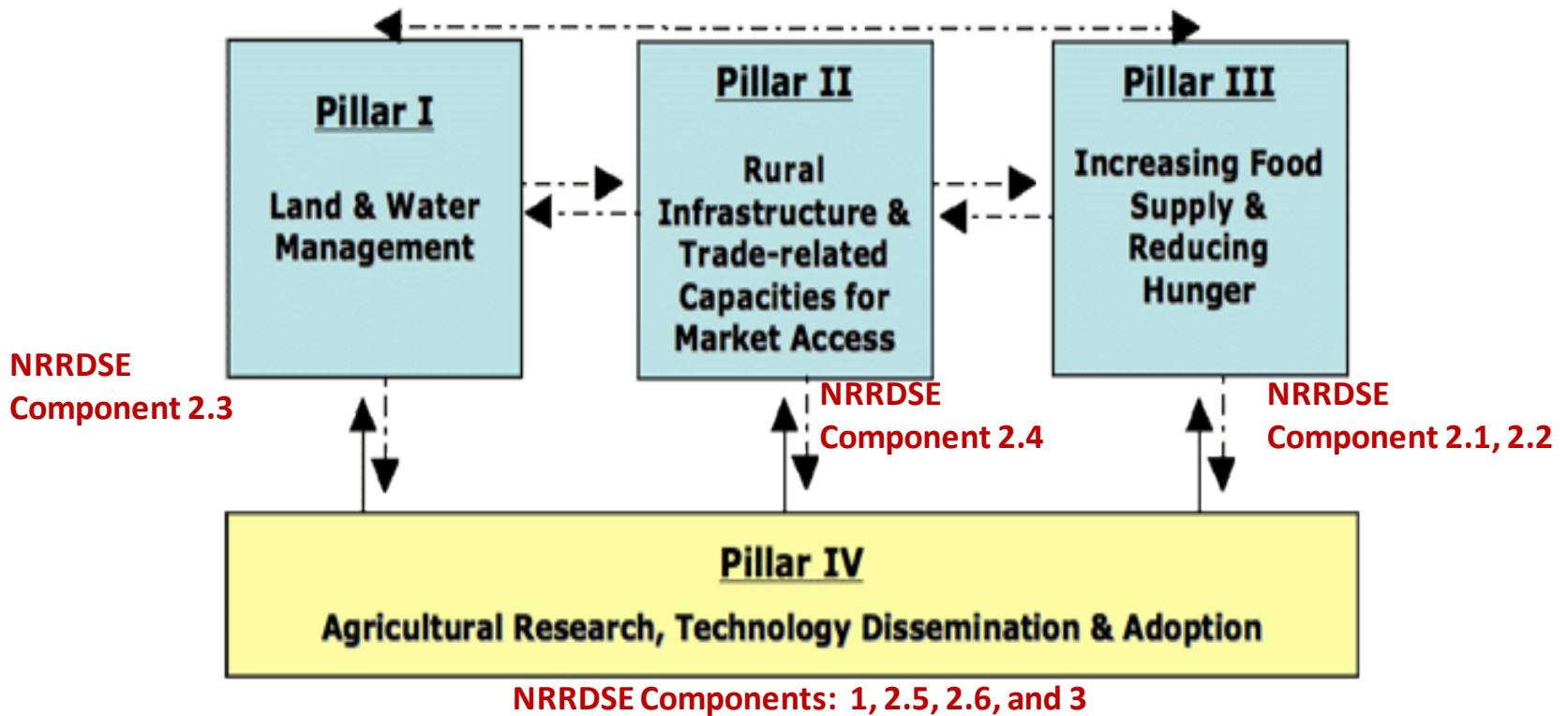
# Alignment of NRRDSE with Economic Growth and Poverty Reduction Strategies

- The key elements of the NRRDSE are aligned with the agricultural component of GTP specifically in terms of:
  - the intensification of marketable farm products -both for domestic and export markets, and by small and large farmers
  - facilitating the commercialization of agriculture
  - expansion of small scale irrigation along with medium and large scale irrigation
  - enhancing the capacity and extensive use of labour
  - agro-ecology based development
  - supporting proper utilization of agricultural land



# Harmonization of NRRDSE with CAADP

CAADP – Fostering Growth in African Agriculture



# Role of Private Sector in NRRDSE

- Seed Production
- Agro dealer network for inputs such as seeds, fertilizers, pesticides and farm tools/machineries in rural areas
- Quality improvement and Value Addition
  - Small and Large scale Rice Mills
  - Enriched rice flours
- Trading of rice
- Commercial scale rice production
- Research Trials/collaboration/validation

# Rice Sector Analyses – Subsector Intervention Element Matrix (SIEM)

	Policy / Institutional	Infrastructure	Human resource capacity	Provision / support	Information / knowledge
Seed	Seed Regulatory Laws Private Sector Seed Certification	Storage Facilities Breeding Facilities (Germplasm, Glasshouse)	Breeders, Seed technologists, Technicians Plant Protection Scientists	Ecology specific varieties Hybrid rice Salt/Stress tolerant rice Aroma/Flavor/Cooking quality	Seed Use Sources of availability
Fertilizer	Incentives Access to Credit	Soil laboratory equipments, chemicals	Soil technicians Soil Scientists Agronomists Extensionists	Soil reclamation Site-specific fertilizer recommendations and Integrated Soil Fertility Management Soil testing services	Timely availability/distribution Price fluctuations Profitability (advantages) Fertilizer Use Efficiency Micro Nutrients Integrated Soil Management
Pesticides	Adulteration Regulation (quality, expiry)		Plant Protection Scientists Extension Agents	Emergency reserves of chemicals against major epidemics Seasonal Forecasting Efficiency of new chemicals	Awareness of appropriate chemicals, availability and usage
Irrigation / water management	Ownership and responsibility conflicts of irrigation schemes, structures Water Fees	Catchments in Uplands Rain Water Harvesting Bore-wells Dams River diversions Canals Rehabilitation of existing infrastructure Pumps	Short term training courses for farmers, development agents, and specialists	Irrigation scheme designs Water potential assessment Technical assistance on operation and maintenance of small pumps	Water Use Efficiency Maintenance and responsibility of irrigation structures Drainage

# Rice Sector Analyses (Contd.) – Subsector Intervention Element Matrix (SIEM)

	Policy / Institutional	Infrastructure	Human resource capacity	Provision / support	Information / knowledge
<b>On-farm technology dissemination (E)</b>		Training Center of Excellence	Extension/Development agents Extension Researchers Technology Evaluation	Comprehensive packaging of technologies Extension Materials Demonstration/Promotion	Communications of research information
<b>Mechanization</b>	Raising the limits of foreign currency Tariff reduction (Small scale import tariff, sales tax) on machineries, spare parts, implements Incentives (soft loans, tax)	Training and Testing Center	Rural artisans Mechanics Operators Extension agents Engineers Post harvest technologists	Small Tools (Weeders, sprayers) Implements (levelers, threshers, power tillers, rotavators) Service/Maintenance	Awareness Profitability (Cost/Benefits) Knowledge of applications
<b>Quality improvement</b>	Standards of mills and milling process Grading (at local mills) Quality/Standards (purities, broken %, hygiene, packaging) Incentive (Differential pricing for good quality rice) Rice Millers Association	Assembly Hubs Rural Electric Supply Fuel Storage in rural areas Quality testing laboratories	Food technologists Milling technicians Training on post harvest handling, storage and marketing	Small Mills and other machineries Value Addition	Awareness on linkage between quality and price Best post harvest handling and storage practices
<b>Access to market</b>	Minimum support price Rural trading of paddy Predetermined Contracts between cooperatives and millers Cooperative output markets	Feeder roads Transportation Storage Market Information Infrastructure (Price, trade)	Economists Market Informers Trading Entrepreneurs	Rural communication facilities Monitoring of trade activities Training on trading Collective bargaining (Cooperatives)	Market Information (Price, trade (import/export volumes))

# Needs, Resources, and Funding Priorities for Rice Sector

Subsector/Intervention	Policy/Institutional Support	Infrastructure	Human Resource Capacity	Provision/Support	Knowledge/Information
Seed	Sufficient	Gaps	Priorities	Priorities	Insufficient
Fertilizer	Gaps	Gaps	Sufficient	Priorities	Insufficient
Agrochemicals	Gaps	Gaps	Gaps	Insufficient	Insufficient
Irrigation / water management	Gaps	Priorities	Insufficient	Insufficient	Insufficient
On-farm technology dissemination (E)	Gaps	Priorities	Priorities	Sufficient	Insufficient
Mechanization	Gaps	Gaps	Priorities	Insufficient	Insufficient
Quality improvement	Gaps	Gaps	Insufficient	Priorities	Insufficient
Access to market	Gaps	Gaps	Sufficient	Sufficient	Insufficient

 Priorities    
  Gaps    
  Insufficient    
  Sufficient