

# FR2.2: Gender-based assessment of rice and rice seed production in Nioro hub, Senegal

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# Context

- Rice is grown mainly in 2 different ecologies in Senegal:
  - Irrigated in the northern part of the country
  - Rainfed in the Central and southern part
- Rice production in the rainfed ecology: a traditional activity for women mainly as a **food crop**.

# Context

- An increase in rice demand is causing a ‘de-feminization’ of rice cropping in rainfed ecology:
  - The country’ self-sufficiency goal relies on the expectation to produce rice in the rainfed ecology by at least 40 % of National demand.
- More investment is directed to the rainfed rice system and that is transforming rice to a cash crop :
  - more attractive for men who are becoming involved in growing upland riceAfter the introduction of varieties suitable to upland ecologies
- Women stay stuck in lowland ecology:
  - constraints of climate changes and access to improved adapted technologies
  - competition with men.

# Context

- **‘De-feminization’ and exclusion in rainfed rice systems**
  - **Feminization: men’s role in agriculture decline and gives more opportunity to women such as control over finances**
    - De-feminization:
      - men’s role increases in upland ecology
      - **but women become worse off in terms of workload (still have to work on man’s plot)**
      - Women lose control over income and the household food opportunity
    - Exclusion:
      - Threats of salinity, drought, flood and toxicity in lowland rainfed systems are not adequately addressed
      - Women abandoned rice farming in some areas
      - The role of women & contribution in households are compromised.

# Objective

- Empowering women through their inclusion in rice research and development programs:
  - investigate the women and men specific needs and challenges;
  - identifying sustainable suitable business models for women farmers;
  - pilot viable and sustainable business models for women for adoption and dissemination.

# Methodology

- Data collection:
  - qualitative enquiries through focus group discussions: to identify the constraints in rice farming and to assess the producer's awareness of stress tolerant varieties.
  - quantitative investigation: 180 respondents in assessment of business models.
- An interdisciplinary action research:
  - Breeding: provision of stress tolerant varieties to test with women in the lowland rainfed ecology;
  - Seed expertise: production seeds as an entry point, hence technical capacity building, monitoring and certification
  - Value chain economy: entrepreneurship for women
  - Integrative gender research: gender-responsiveness

# Results (1) FG

- Constraints in rice farming

Men	Women
<ul style="list-style-type: none"><li>• Lower experience in rice production than women</li><li>• Drought</li><li>• Lack of agricultural equipment</li><li>• Lack of certified seeds</li></ul>	<ul style="list-style-type: none"><li>• Limited access to land</li><li>• Salinity in the lowland</li><li>• Drought</li><li>• Lack of agricultural equipment</li><li>• Lack of seeds of rice stress tolerant varieties</li></ul>





# Results (2)

- Selected stress tolerant varieties for lowland rainfed rice

Variety	Cycle (Day)	Potential yield(T/ha)	Characteristics
ISRIZ 10	122	11	Tolerant to salinity
ISRIZ 11	105	12	Tolerant to salinity
Sahel 210	125	12	Tolerant to salinity
ARICA 11	109	9.3	Tolerant to salinity
ARICA 6	115	10	Tolerant to Iron toxicity
NERICA-L-19-qRL6.1	127	8	Tolerant to Iron toxicity
ISRIZ 12	120	10.5	Aromatic and Tolerant to drought



# Interdisciplinary action

- Distribution of seeds



# Interdisciplinary action

- Distribution of seeds: kits of (3kg) rice foundation seed to 154 women farmers

Zone	Village	Women group	Responsible	Total Number kits	kg/kit	Varieties/Number Of kits		
<b>Central</b>							Variété	Kit
<b>Fatick</b>	Diofior	SAAX Jam	Agent Ancar	<b>50</b>	3	Sahel 134	24	
						ISRIZ 12	05	
						Sahel 210	21	
<b>Kaolack</b>	Nema Ba	Ndef leng	Agent Ancar	<b>53</b>	3	Sahel 210	24	
						Sahel 134	16	
	Missirah	Fodé Senghor				ISRIZ 10	09	
						ISRIZ 11	04	
<b>Southern</b>								
<b>Tamba et Kolda</b>			Agent Sodagri et Ancar	<b>51</b>	3	NERICA L19	22	
						Sahel 210	17	
						Sahel 134	12	



# Interdisciplinary action



Women plots



# Results (3)

- Seed production - Central Senegal

Zones	Village	Women group	Area (Ha)	Variety	Production/t	Remarks
Kaolack	Missirah	Fode Senghor	1.9 ha	Sahel 210, Sahel 134, ISRIZ 10, ISRIZ 11	2.146	Good resistance to salinity.
Fatick	Diofior	SAAX JAAM	4,25	Sahel 210, Sahel 134, ISRIZ 12	0,942	Early rain stop
Tamba counda	Koulor	Guem sa Bop	0,5	Sahel 134	00	Damaged by animal
Velingara	Sinthian Koundara (Djida)	GPF Kawral :		Sahel 134	0,024	
	Velingara Foulbé	GPF Balale :	350m	Sahel 210	0,050	
	Koukane	Kaural	2200	Sahel 134	0,405	
Kolda	Fafacourou	GPF Tassito	350 m2	Sahel 210	00	Early rain stop
	Kerewan	Wakilare	0.125 ha	Sahel 210	0,07	
	MYF Koulinto kadiamary	Khal gonga	50 m2	Sahel 134	00	Early rain stop
Nioro	Djiguimar	Coopérative de Djiguimar	1ha	Sahel 210	2.580	
<b>Total</b>					<b>6.217</b>	

# Results (3)

- Seed production - southern Senegal

Zone	Village	Variety	Seed production area (Ha)	Production /kg
Kolda	Sare Moussa Meta	Nerica L19	0,25	970
	Sinthiang Bakary	Sahel 134	0,25	600
Kolda	Ngoudoumane	Sahel 210	0,20	1200
	Ngoudoumane	Nerica L19	0,20	768
Ziguinchor	Kabiline	Nerica L19	0.05	165
		Sahel 134	0.05	100
		Sahel 134	0.05	240
		Sahel 134	0.05	240
		Sahel 134	0.05	80
		Sahel 134	0.05	110
		Sahel 134	0.05	100
		Nerica L19	0.05	219
		Sahel 134	0.05	234
		Sahel 134	0.05	245
<b>Total</b>				<b>5637</b>



# Results (4)

- Seed production as a profitable business
  - Collective sales: a local farm organization bought certified seeds from women





# Lessons learnt & the way forward

- Lessons:
  - Success of interdisciplinary approach for impact
  - Expanded learning as a gender researcher
  
- Way forward:
  - Scaling intervention to 20 villages
  - Study: quantitative and qualitative evidence of the effect of women's engagement in seed production on their empowerment.

Thank You!

