Piloting Lowland rice production to mitigate floods

NRC South Sudan

03rd August 2023

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Climate Adaptation/Turning calamities into opportunities

- NRC under the WFP/FAO funded projects in Twic County (Warrap State) supported farmers to establish crop gardens which failed due to flooding/waterlogging – year after year

- Flood control dykes were constructed every year but was not a sustainable solution to the flooding/waterlogging problem

- NRC decided to diversify crop production by piloting crops that were flood/drought tolerant but also able to cover food security needs for households such as lowland rice, orange fleshed potatoes

- RICE was crop of choice due to flood/waterlogging tolerance and many farmers preferred it due to this characteristic

- Variety is BR4 and takes 120-150 days to mature

NUTRITION

WFP
World Food Programme

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Promising Progress

In Twic County, Lowland rice production was first piloted by NRC in 2020 with support from WFP/FAO which provided direct seeds through BRACE II 16 months initially planting in **5 feddans** (**15 bags** of 50 kgs)

In 2022 an estimated number of **105 feddans** of lowland rice was grown Twic County with an estimated average production of **632 bags** of 50 kgs

An estimate **432 feddans** planted in 2023 (Twic, Twic East and Aweil East Counties) with average production of **3,984 bags** of 50 kgs

2020 → 2021 → 2022 → 2022 → 2023

By 2021 piloting lowland rice production had expanded and increased acreage to a total of **17 feddans** cultivated in 3 Bomas; Mangok Amuol 8 feddans, Ayien Boma 7 feddans and Maper Boma with 2 feddans (**55 bags** of 50 kgs)

The same was replicated to Twic East, Jonglei State under the WFP FFA funded project (5 feddans were grown in 2022 with expected produce of 40 bags of 50 kgs) - **Seeds were purchased from the NRC rice farmers in Twic County, Warrap State**

Generated Interest among stakeholders

- This intervention has received a lot of attention from the community and government whereby rice production lead farmers were nominated to attend Agriculture and Livestock exhibition show that was organized by both State and National Ministry of Agriculture in November 2021 at State Capital (Kuajok) to share/showcase their experience
- High level delegation tour/field mission that comprised of Norwegian Ambassador to South Sudan and National Ministry of Agriculture were also very impressed by quality rice produced by NRC's supported beneficiaries in Twic County.
- Partner organizations in Warrap such as ADRA, VSF, WADA, MADA, JAM, ACF and WVI led by WFP & FAO (FSL Cluster leads) organized a learning visit to NRC sites in order to understand and learn from NRC's innovations.
- NRC was furthermore invited to present at the global Food Security and Livelihoods Cluster and South Sudan National Food Security Cluster meetings on the piloting of lowland rice production as a climate change adaptation agricultural strategy on 30 November and 8 December 2021 respectively
- Exchange Visits (Farmers, MoA, IPs, WFP) on Climate Adaptation Focusing on Rice Production
- NRC's learning and insight into climate adaptation and disaster risk mitigation experience shared with WFP climate advisor (Nairobi) to inform WFP upcoming strategy
- NRC and IPs supported by WFP for a ToT facilitated by JICA Uganda on rice cultivation
- WFP working on a documentary on NRC lowland rice piloting

Lessons Learnt & Challenges

- Rice production has helped improve the food security of flood affected communities where all crops failed due to floods. In Some places the farmers have been able to produce enough for consumption and surplus for sale
- In rice producing places farmers have shown a lot of interest in rice production which is helping diversify their food sources
- Farming in Swamps – Some beneficiary not used and labor intensive
- New crop to most farmers and requires more follow-up and Capacity Building
- Support of entire value chain: inputs, extension services, Post harvest management, market linkage, simple processing equipment
- Funding to scale-up as well understand more parameters – productivity per acre, performance of other varieties (flood/upland) other than BR4

Drying and threshing

Rice field

Post-harvest handling & storage

Rice harvesting

The future of rice production/Climatic adaptation opportunities

- **NRC aims to scale-up, support studies/research around flood rice production & and continue sharing lessons on this and other climate adaptation techniques to reach more vulnerable people, in new geographic areas and work with other organizations that can further expand the initiation**.

➢ Support through the entire rice value chain while complementing the practice with more research/studies on new growing techniques, varieties etc

THANK YOU!