WFP/FAO Funded LEAP & BRACE Projects- Upland rice production piloting to mitigate floods
Climate Adaptation/ Turning calamities into opportunities

• NRC and ADRA under their WFP/ FAO funded projects in Twic and Tonj Counties (Warrap State) established **vegetable gardens which failed due to flooding/waterlogging** – year after year

• **Flood control dykes were constructed every year but were not a sustainable solution** to the flooding/waterlogging problems

• NRC/ADRA decided to **diversify crop production** by piloting on crops that were flood/drought tolerant but also able to cover food security needs for households such as upland rice & orange fleshed sweet potatoes

• **RICE was the crop of choice** due to its flood/waterlogging tolerance & many farmers preferred it due to this characteristic
Rice Field

Harvesting time

Farmers preparing planting holes for transplanting rice

Rice Field
Achievement and future outlook

• In Twic County, upland rice production was **first piloted by NRC in 2019** with support from FAO which provided direct seeds through BRACE II 16 months initially planting in 5 feddans.

• By **2021 upland 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.

• In Tonj County, ADRA first piloted upland rice production in 2021 covering approximately 1 feddan for trial and seed multiplication purposes.

• There has been a lot of **interest by farmers, for 2022** the area under upland rice production is expected to be greatly increased.
Anticipated output & effects:

HH food security:

- Baseline = zero yield from sorghum in waterlogged soils
- Rice yield from adaptive practice (adapted to changed waterlogged environment)
- Reduced expenditure / sale of livestock from rice yield substituting for sorghum
- Option to generate income by selling rice if HH needs dictate
- Encouragement & adoption by other sorghum growing farmers for rice area expansion in 2022

Research & learning:

- Calculation of gross margin = yield – cost; how then does it compare to sorghum; of great interest here is labor (a scarce commodity for many ‘vulnerable’ farmers); how feasible is rice production especially for most ‘vulnerable’ HHs?
Main Challenges and Recommendations

Challenges:
• Farmers not accustomed farming in swampy condition
• Lack of knowledge on rice farming being a new crop to them, for example weeding some could not initially identify rice from grasses and other practices that go into rice farming

Suggested Mitigation Measures
• Early planting before water level rise, support with gumboots and other protective gear
• Strengthen capacity building to farmers on rice production