

# THE GAMBIA

## Strengthening Climate Resilience of the National Agricultural Land and Water Management Development Project (CHOSSO) – National Agricultural Land and Water Management Development Project (NEMA)

The designations employed and the presentation of the material in the map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.



## ISSUES

Gambia is one of Africa's smallest and poorest nations, ranked 175 in the 2015 Human Development Index (HDI). Poverty is widespread, pervasive and predominantly rural. About three quarters of the rural population is classified as poor. It has over 30 per cent of its population classified as in severe multidimensional poverty, and living on less than US\$1.25 per day.

Mean annual temperatures in Gambia are projected to increase between 1.8-5.0° C by the 2090s. The interior region of the country will face the fastest rate of warming. With rising temperatures, and a reduction in precipitation, rates of water evaporation from the land are expected to increase anywhere from 2-45 per cent. Temperature extremes will become the new norm for Gambia.

Already in the last 40 years, Gambia has experienced a drying trend. It has caused springs and streams to dry up. Water tables have fallen, and swamps have not flooded with the seasons as they have historically done. Rising sea levels coupled with land drying out are also leading to salinity intrusion. Since the 1960s, large areas of freshwater swamps in western Gambia have been replaced by saltpans and salt-water marshes.

Sea level is also projected to rise throughout the 21st century and increase between 0.4-0.7 metres by 2100. Some estimates even put it as high as 0.98 metres by the end of the century. Sea level rise is mainly considered a threat to coastal areas, with visible effects on beaches and infrastructure. However it will also impact agriculture, especially areas using tidal irrigation.



Investing in rural people

Adaptation for  
Smallholder  
Agriculture  
Programme

## ASAP

Launched in 2012, the Adaptation for Smallholder Agriculture Programme (ASAP) channels climate and environmental finance to enable smallholder farmers who participate in IFAD projects to increase their resilience. Through ASAP, IFAD is systematically integrating climate resilience into the overall IFAD portfolio.

## PROGRAMME SUMMARY

**Total cost:** US\$70.7m

**Approved IFAD loan:**  
US\$7.1m

**IFAD grant:** US\$27.3m

**ASAP grant:** US\$5m

**Other contributions:**

Islamic Development Bank &  
African Development Bank  
(IsDB & AfDB): US\$26.8m  
Lenders: US\$1m

Government of Gambia:  
US\$2.8m

Beneficiaries: US\$0.7m

**Programme period:**

NEMA—7 years (2013-2019)

CHOSSO—4 years (2015-  
2019)

**Executing agency:**

Ministry of Agriculture and  
Ministry of Environment,  
Climate Change, Water, Parks  
& Wildlife

**ASAP beneficiaries:** 230,000  
(CHOSSO specific – 52,450)

**Programme objectives:** To  
reduce poverty of rural women  
and youth by increasing  
incomes from improved  
productivity based on  
sustainable land and water  
management practices.

## ACTIONS

Some of the CHOSSO actions for watershed development will include:

- Undertaking a campaign of community climate change sensitisation
- The creation of drains to allow saline water to run off from rice land
- Piloting new and/or modified surface water capture structures
- The management of scarce irrigation water to ensure its optimal use by the women vegetable growers
- The efficient management of irrigation water by youths, comprising of training on the use of the microjet irrigation technique, choice of crops, sequencing of planting in line with market demand, and the management of the water infrastructure
- Planting of indigenous species, which are more climate resilient, and the replacement of slow-growing trees that have been cut down
- Supporting the establishment of woodlots with financial resources and technical advice
- Promoting mangrove restoration as both a productive resource and an important element in river management.

CHOSSO is going to be fully blended with the already operational NEMA project. It's investments will be used to modify and/or enhance the work of NEMA, to achieve CHOSSO's main aims of watershed development and agricultural commercialisation.

The work CHOSSO will do to promote agricultural commercialisation will include increasing climate resilience for producers, whilst building the technical capacity of service providers. This would mean: promoting drought, salt or flood tolerant seed varieties; integrating pest management and the promotion of organic manure; ensuring the sustainable use of inorganic fertilisers; crop rotation and diversification; the use of the half-moon technique; and planting in basins or mulching. The project will also offer commercial and managerial advice to service providers.

Building climate resilience also requires reliable climate risk information services. CHOSSO will consolidate the timely generation and dissemination of key weather and climate risk information to smallholders at the local level in an appropriate, user-friendly format.

Hydrometric equipment would be provided for the Hydrology Unit, in the Department of Water resources, so that they can perform real-time monitoring at strategic locations along The River Gambia. Technicians will be trained in the use of the equipment and analysis of the expanded database.

Finally CHOSSO will work with NEMA in project facilitation. This work will include: climate change management capacity,

resilience research and informing climate policy dialogue.

## EXPECTED IMPACTS

CHOSSO and NEMA will combine to have a significant impact on Gambia. Under the watershed development section of the project, there will be an increase in the number of watersheds developed and managed by communities. This will be achieved through improved rice productivity on 12,400 hectares. Chosso funds will benefit 720 hectares out of this 12,400 hectares. Rice productivity will increase on women's farms, with yields growing from 0.7 tons per hectare to 1.8 tons.

Additionally 2,000 hectares of tidal areas will be developed by the NEMA project. CHOSSO funding will help to modify some of the designs. These developed areas will improve rice production through water control and drainage structures. These irrigated tidal areas will improve yields from 1.5 tons per hectare to 6.5 tons.

There will be 4,000 hectares of upland areas with improved cropping. CHOSSO funding will benefit 600 of these hectares. Both projects will, together, reclaim 3,100 hectares of degraded lowlands for production. Furthermore, vegetable farming yields (tomatoes, onions etc.) will be significantly improved.

There will also be an increase of 30 per cent of land adopting and implementing climate resilient practices. This equals roughly 1,530 hectares of land.

Improvements will mean 85 per cent of producers in the project area will have year-round access to both farmlands and markets. Around 2,500 hectares of farmland will see access roads built or upgraded.

There will be mangrove restoration which will generate several valuable ecological benefits, including: carbon sequestration, nutrient and sediment retention, enhanced biodiversity habitats, reducing the risk and impacts of flooding, wastewater treatment, water supply and recharge.

Other benefits of the CHOSSO and NEMA collaboration are:

- At least 20,000 producers will adopt and practice ecologically sound approaches
- Improved technical and business skills for at least 72 producer organisations
- 36 young people will be trained to start their own businesses
- 300 women will be supported in their market-oriented enterprises
- 60 start-up agricultural service enterprises will be capitalised and operational, creating 300 jobs
- At least 20 service providers will get strengthened capacity in agricultural business promotion.

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