

The FANFAR flood forecasting system saved lives and property in West Africa

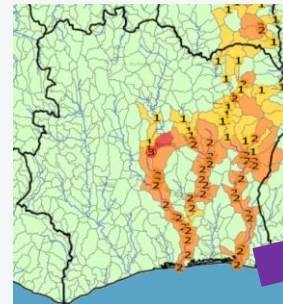
Nigeria, 2020

- FANFAR → Nigerian hydro. service → local government → evacuated people from five communities near Jebba dam
- 200 houses destroyed, but 2 500 lives saved!



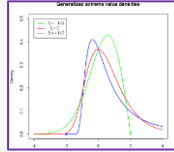
Ivory Coast, 2022

- Grand-Bassam community
- Pre-season: awareness, roles and communication channels
- Rainy season: weekly (+) forecast
- FANFAR → trenches built to release water to ocean → reduced property damage in community during flooding

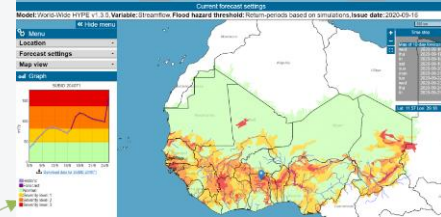


Overview of the FANFAR operational flood forecasting & alert system for West Africa

GEV thresholds



24/7 ICT processing

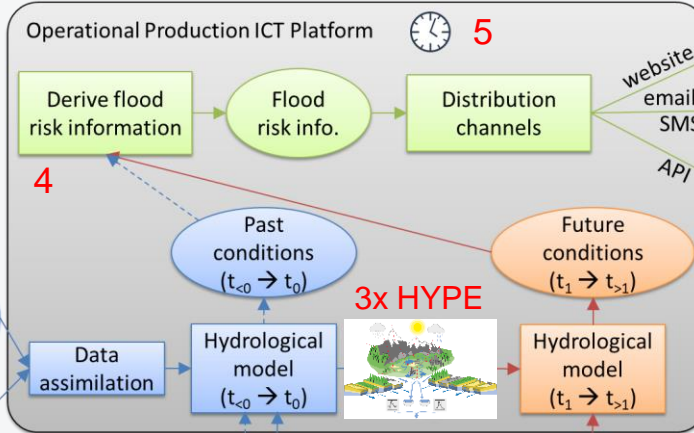
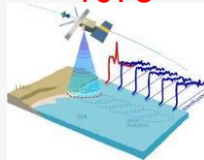


More details



47 River flow obs.
EO

1078



HydroGFD cascade

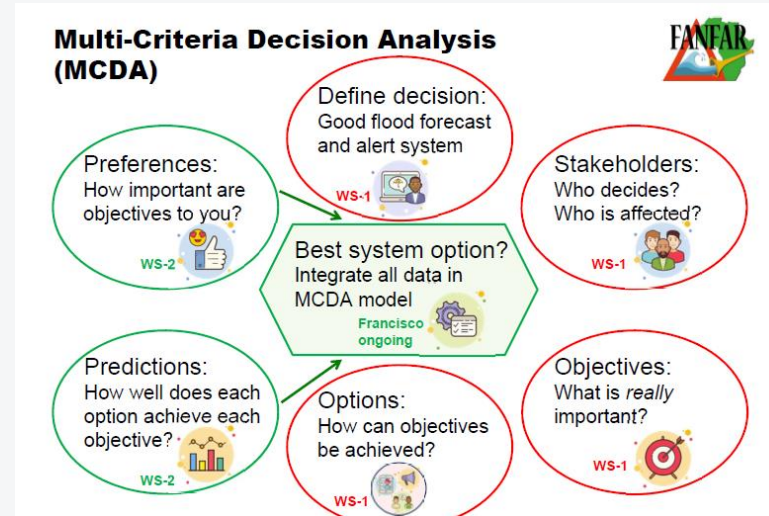
ECMWF-DET 1-10day

www.fanfar.eu

- Openly accessible 1-10day forecasts
- Updated every day since Sep. 2018
- Developed jointly & continuously
- Multiple components

Co-design of FANFAR – what would a good system look like? (1/2)

- Clarify & prioritize user needs with Multi-Criteria Decision Analysis
- 35 organisations from 17 countries (Chad to Cap Verde): hydrological services, emergency management, regional agencies etc.
- Onsite workshops & online exchange

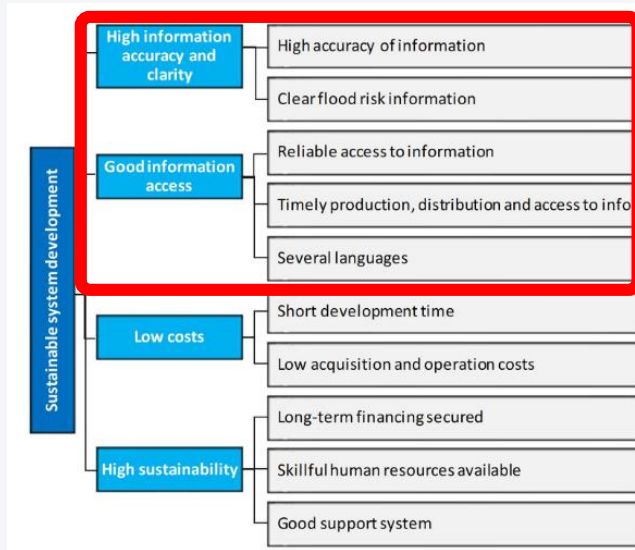


Lienert et al 2022, *HESS*, <https://doi.org/10.5194/hess-26-2899-2022>



Co-design of FANFAR – what would a good system look like? (2/2)

Ranking of Objectives (“What?”)



Priority: operational system > advanced features

Ranking of configurations (“How?”)

