

ADAPTATION TO CLIMATE CHANGE R+D+I project

PASTORAL MONITORING SYSTEM TO SUPPORT **CLIMATE CHANGE RESILIENCE IN SAHEL PROJECT**

« INNOVATIONS IN EARLY WARNING: COMBINING REMOTE SENSING AND COMMUNITY-BASED APPROACHES IN SAHELIAN PASTORALISM »





CONSORTIUM

- Lead: ACF-Spain.
- Partners: SNV, Hoefsloot Spatial Solutions (HSS), Orange, Institut d'Économie Rurale du Mali (IER), European Space Agency (ESA), GeoVille, Flemish Institute of Technology (VITO), Ministry of Livestock (Mali and Niger), Réseau Billatal Maroobe (RBM)



FUNDER

Fondation Prince Albert II de Monaco, FAO, World Bank, DFID, Netherlands Space Office and IFPRI.



BUDGET 500,000 €

CONTEXT ▶

The Sahel Belt is characterized by a unique rainy season that determines the availability of the two main pastoral resources: water and pasture. Erratic rainfall makes their accessibility neither stable nor predictable. During the last fifty years, Sahelian rain deficits and droughts have impacted In this environment, the use of Geo- at national and regional levels.

climate, water and pasture.

millions of people, in particular the graphic Information System (GIS) pastoral and transhumant communi- tools and Remote Sensing (RS) are ties. To reduce their vulnerability to critical inputs in monitoring pastorecurring crises, pastoral communities ral resources. Action Contre la Faim need access to reliable information on (ACF) and its partners have progressively developed an innovative pastoral surveillance and early warning system

PROJECT IMPLEMENTATION PLAN ▶



DEVELOPMENT OF TOOLS AND METHODOLOGY

Development of indicators and methodology for field data collection Refinement of Remote Sensing tools.

Development of partnerships with local organizations,

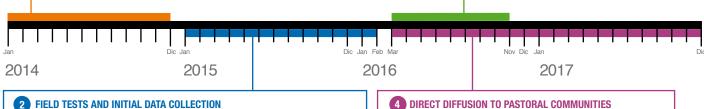
Time: January 2014 - December 2014.

3 CAPACITY BUILDING OF NATIONAL ACTORS

Integration of field data collection systems into national early warning systems.

Training of national actors in field surveillance and remote sensing.

Time: March - November 2016.







Partnerships with national state actors.

Participatory Vulnerability & Capacity Assessments in Niger and Mali. Participatory mapping of livestock movements.

Time: January 2015 - February 2016.



Pilot roll-out of pastoral call-centre with Orange. Scale-up of information services to pastoral communities.

Time: March 2016- December 2017.

METHODOLOGY ▶



Remote Sensing / Satellite **Data Analysis:** Using in-housed developed applications and algorithms, ACF is able to measure pasture and water ghout the year. The data from these analyses forms a critical part of humanitarian response



Participatory Studies: ACF is engaged in qualitative research throughout the Sahel to better understand local mechanisms of early warning and information sharing and how they can be integrated into larger early warning frameworks. Likewise, ACF regularly engages in participatory mapping of livestock movements across the region to identify areas of critical importance to pastoral communities.

Real-time field data collection: To improve the timeliness and cost-efficiency of information gathering, ACF engages in remote data collection directly from pastoralists themselves on pastoral resources. This information is collected alongside national actors in the Ministry of Livestock and uses low-cost tools through mobile phones. These systems allow for a quick and accurate cartography of the pastoral situation.

OUTPUT AND IMPACT

ACF EWS prevents humanitarian, food and nutrition crises in Sahelian pastoral areas through the provision of timely and reliable drought risk information to local, national and international stakeholders. This applied research project will provide a more precise analysis of pastoral surveillance, especially by reinforcing social and anthropological considerations, rarely taken up by the current system. With technical support and training from

remote-sensing analyses of biomass and water. The EWS of Niger is directly implicated in monitoring livestock movement for the pilot project. ACF works with National EWS to ensure HSS, RBM and IER seeks to create a that the surveillance components are nationally owned and sustainable. By the end of the project, they will be fully capable of running national pastoral surveillance and monitoring programs.

ACF, the Malian EWS conducts its own ACF is also engaged in an initiative to provide the information directly through a call center operated by Orange in Northern Mali. The initiative, in consortium with SNV, Public Private Partnership model to disseminate data in a sustainable, scaleable fashion.

CONTACT ▶

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