

**Inputs provided by:** *(please provide the name of your organization)*

**1. General description of mandates and objective(s) of your organization / associated network with institutional structure**

The U.S. Agency for International Aid (USAID) created the famine emergency warning system network (FEWS NET) in mid 80s with the goal of mitigating the agro-meteorological shocks on the vulnerable populations especially in the famine-prone countries of Africa and Latin America. The US Geological Survey (USGS), National Aeronautics and Space Administration (NASA), the National Oceanic and Atmospheric Administration along with the regional experts in the above countries support this program. FEWS NET assessments are based on the satellite rainfall estimates (RFE2), satellite observed normalized difference vegetation index (NDVI), snow extent, prevailing global climate conditions, local soil, crop calendar, and topography. The website <http://earlywarning.usgs.gov> provides the suite of early warning products that the FEWS NET uses for early warning purposes.

**2. Relevant operational framework(s)**

The objectives of the FEWSNET system are three-tiered: vulnerability identification and impact assessment, development of appropriate contingency plans, and design and implementation of timely disaster relief packages.

**3. Focus areas of risk management for loss and damage associated with climate change impacts**

FEWS NET has developed its own climate diagnostic approach (based on sea surface temperatures and historical rainfall trends in Africa, 1981 - 2012) to generate suitable scale probable future scenarios for the next 15-20 years. FEWS NET vision of evaluating climate change impacts on rain-fed agriculture consists of:

- Application of the weather characteristics of the probable future scenarios using the GeoWRSI to assess drought impacts on agriculture. A comparative analysis of the WRSI profiles during drought and non-drought seasons for baseline (1981-2010) and future scenarios.
- Generation of corresponding loss exceedance probability (LEP) curves using historical and synthetic satellite estimated rainfall time series data that would facilitate quantitative assessment of potential changes in drought risk due to changing climate.

**4. Geographic coverage**

FEWS NET has already identified candidate crops and drought prone countries for this study. Maize in the southern Africa (Malawi and Mozambique); maize in the Rift Valley, Kenya, and millet in West Sahel (Niger, Mali and Senegal) have been selected for this study.

**5. Key stakeholders**

FEWS NET in collaboration with UNISDR is conducting this study.

**6. Implementation modality / delivery mechanisms**

The standard sequential processing steps of drought risk analysis will be followed – exposure, hazard, and

vulnerability to assess the relevant risk metrics. The deliverables include (a) return period loss maps and tables (b) Average annual and probable maximum losses, (c) drought frequency maps.

**Please provide information related to the technical, financial and institutional support mechanism**

FEWS NET is supporting the above research study for UNISDR.

**Please provide information related to reporting, if any**

The preliminary results have already been published in GAR13.

**7. Key activities / outputs to date**

The preliminary results have already been published in GAR13.

The results of climate change impact assessment by FEWSNET is scheduled to be publishes in GAR15.

**8. Any additional information and contact details**

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