Summary

Title: **"Disasters Profile of Quang Binh Province and Review and Assessment of the Availability and Usage of Early Warning System and Weather Forecasts" Consultancy**

Position: 1 consultancy team

Duration & timing: Maximum of 180 working days over period-December 2016 to May 2017

Duty station: Home based, Hanoi and Quang Binh Province

Reporting: German Red Cross DRR delegate

1. Background

The Vietnam Red Cross (VNRC) and German Red Cross (GRC) aim at piloting a new approach called Forecast Based Preparedness (FBP) that uses forecast-based thresholds to automatically release money that pays for pre-planned short-term emergency preparedness actions in the critical window of time after a forecast but before a disaster. Emergency preparedness in the days/weeks before a disaster is an important complement to traditional disaster risk reduction efforts focusing on longer term infrastructure and capacity development. FBP will enable VNRC to act in the days before a flood or cyclone to reduce community losses and ready itself to provide relief immediately after an event.

As part of CBDRM project implemented in Quang Binh with the financial support of the Boll foundation, the GRC and VNRC agreed to pilot the concept of Forecast Based Preparedness activities with the view to generate learning for potential replication and scaling up.

One of the first step consists in the selection of specific types of hazard, forecast time-scale and danger level for the implementation of the concept. This implies reviewing and analysing the availability of early warning system and/or forecasts at different timescales for the main natural hazards (flood and cyclone) faced by the Quang Binh province and evaluating their usage and relevance for key economic sectors for disaster preparedness.

For this purpose, GRC and VNRC are looking for a team of experts (climate/weather modelling, climate survey, natural disasters assessment) to conduct a technical study.

2. Purpose of the study

The main objectives of this study are
(i) to analyse the Disaster Profile of Quang Binh Province with focus on heavy rains and floods,
(ii) to determine the level of impact / damage of extreme climate events in rural and urban context in Quang Binh for the key economic sectors
(iii) to assess the availability and gaps of early warning system and/or forecasts at different timescales for heavy rains and floods for the Quang Binh province.
(iv) to evaluate the forecast usage by key economic sectors for disaster preparedness.

3. Scope of the study

More specifically for the Disaster Profile, the study will collect disaster and meteorological data of Quang Binh province and conduct statistical analysis for assessing the causes, intensity and the scale of disasters. This will focus on heavy rains and floods and will analyse temporal and spatial distribution pattern (per district).

The level of impact / damage of extreme climate events in rural and urban context in Quang Binh will be determined for the key economic sectors: public health, livelihood (agriculture, Forestry, Fisheries, small businesses), water resources management, transport, education.

To review and analyse the availability of early warning system and/or forecast, the study will consist in identifying the existing early warning system(s) and forecast(s) available for the selected hazards (heavy rains and floods) in Quang Binh Province provided by local, national, regional and global levels. This implies reviewing the related information like coverage, accessibility and local expertise to understand and use those forecasts, and includes gathering information on:

- the forecast duration (lead time) (date, month…)

- the certainty of the forecast corresponding to different forecast duration (lead time)

- the possibility to forecast on the strength of extreme event (danger level),

o the probability of incurrence, and return time of the event (frequency of incurrence)

The usage of weather predictions and warnings by the population, the different economic sectors and by the agencies involved in Disaster Preparedness and Response (CDRM, DARD, VNRC) will be analysed with the aim to identify the gaps between the current forecast capacity and the requirements from the population, the different sectors and the Disaster Preparedness and Response practitioners in term of

o forecasting lead time,
o communication mechanism (by radio, newspapers, internet, telephone, ...),
o content of information (elements, time, location, intensity, ...), ...

4. Methodology

To undertake this study, a panel of methods and tools will be used. This includes (i) technical survey, (ii) secondary data review, (iii) semi-structured interviews of key informants from the different economic sectors at province, district and commune level, (iv) field and households visits, and (v) group discussions.

To determine the level of impact / damage of extreme climate events on the key economic sectors and on the population, the expert team could use secondary data from the Thuan Hoa and Mai Hoa communes in Tuyen Hoa District and on ward Phu Hai and commune Bao Ninh of Dong Hoi City where in 2015 and 2016 Vulnerability and Capacity Assessment (VCA) and Community Based Disaster Risk Assessment (CBDRA) have been conducted by VNRC and the local CPC. Those participatory assessments provide relevant information from the commune/ward population and sectors on disaster risks and impacts which can be backed up through interviews with key informant interviews at commune, district and province level. The provincial Disaster Risk Management plan developed by DARD for the Province should also be a key document as a basis for impacts assessment.

5. Outputs/ deliverables

The outputs of this study will be

- Deliverable 1: one report (in Vietnamese and in English) on the Disaster Profile of Quang Binh Province (Report 1) including an analysis of spatial distribution of total rainfall in Quang Binh, yearly distribution the level of impact / damage of those extreme climate events, and the identification of vulnerable areas and areas severely affected by heavy rains and floods.

- Deliverable 2: <u>one report (in Vietnamese and in English) on the availability and gaps of early warning system and/or forecasts for heavy rains and floods for the Quang Binh province</u> (Report 2), including an assessment of the forecast usage by key economic sectors for disaster preparedness and a proposed forecasting system .

6. **Role of the Partners**

For this study the team of experts will have the technical lead in the design and the implementation and will be responsible for writing the reports.

In support to team of experts, GRC and VNRC will make their staff available for discussing the strategic approach of the assignment as well as to discuss content and review the draft versions of the report. GR and VNRC will facilitate the access of the team of experts to existing VCA/CBDRA reports and DRM plans.

GRC will also provide financial support and ensure the overall management of the study and the approval of the final report.

7. **Date and timeframe**
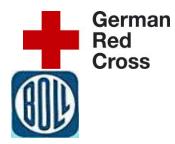
180 working days over period-December 2016 to May 2017

Timeline

No	Outputs/Deliverables	Deadline
1	Draft of report 1 (in English and Vietnamese)	28th February
2	Final version of report 1 (in English and Vietnamese)	15th March
3	Draft of report 2 (in English and Vietnamese)	31th March
4	Final version of report 2 (in English and Vietnamese)	30th May

8. **Profile of the Team**

To implement the tasks, a team leader and a team of experts will provide the technical advisory services. The team should include a climate/weather expert, a weather/climate modeling expert, a climate survey expert and a natural disasters assessment expert. The profiles are described as follows:

TEAM LEADER

Education:
- PhD. in Meteorology or Hydrology, or related fields;

Key experience and skills:
- At least 10 years work experience in Meteorology and Hydrology;
- Experience in at least 5 projects and a proven ability to plan and supervise implementation work plans;
- Experience in climate and weather data development, analysis and operational efficiency;
- Fluency in English is considered an asset.
- Experience in strategic planning with a proven track record in institutional and organizational capacity needs assessments; and
- Skills in presentation of data and concepts, and strong skills in the use of electronic media.
- Record of accomplishment of working facilitation-based roles with a strong team based philosophy; and dedicated to achieving goals and objectives through team-based approaches.
- Demonstrated ability in team leadership, strategic planning, project management, and report writing, agribusiness and value chain development.
- Excellent communication and training skills and Vietnamese/English reading and writing skills.

TEAM MEMBERS

Key experience and skills:
- Experience in projects on climate and weather data collection, analysis, and projection.
- Experience in projects on impact assessment of weather/climate disaster
- Proven experience in design and implementing survey including semi-structured interviews, field and households visits, and group discussions;
- Skills in presentation of data and concepts, and strong skills in the use of electronic media;
- Experts on climate models and climate projection;
- Good organizing skills and interpersonal skills;
- Good English language skills in writing & speaking.

9. APPLICATION PROCEDURE

Interested candidates are invited to send their offer in English consisting of a CV, a technical and a financial offer and a letter of motivation to grc.vietnam.hr@gmail.com

(email only). Please submit your financial offer in Vietnam Dong on a lump sum per day basis including all expenses (transport, accommodation, stationaries) before and after taxes (VAT / PIT /FCT). GRC will not pay any per diem or health/ accident insurance. The consultant /consultancy team will have to ensure its own health and accidental insurance. *Please indicate clearly your application subject: "Disasters Profile Consultancy".*

Deadline for application: 12 December at 17:00, Hanoi time. Please note that only applications which are submitted in English and contain all above mentioned documents shall be considered. While German Red Cross appreciates all responses, only candidate under consideration shall be contacted for an interview.