Initiative on Climate Resilience (ClimBeR): Participatory Climate Risk Mapping and Adaptation Planning in Agusan Del Norte and Agusan Del Sur.

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I. Introduction

CARAGA, home to the Agusan River Basin, frequently experiences climate-related hazards. Four of its provinces—Agusan del Sur, Surigao del Norte, Surigao del Sur, and Dinagat Islands—are among the top 20 provinces in the Philippines most vulnerable to climate change. These provinces face numerous risks, including tropical cyclones, flooding, drought, rain-induced landslides, sea level rise, and storm surges.

The Initiative on Climate Resilience (ClimBeR) is currently conducting activities in the Philippines aimed at reducing the risks to producers' livelihoods and value chains. One of its major activities is the Climate Smart Mapping and Adaptation Planning (CS-MAP). CS-MAP exercises were conducted in Agusan Del Norte and Agusan Del Sur on March 13 and 14, 2024, respectively. CS-MAP is a participatory mapping approach that aims to identify climate-related risks and their impacts on major crops, delineate areas vulnerable to identified climate risks, assess its risk levels, and propose adaptation strategies to help smallholder farmers become more resilient to climate change.

II. CS-MAP activity in Agusan

This activity was successfully carried out with the participation of representatives from the Provincial Agriculture Office (PAO), Municipal Agriculture Office (MAO), DA-Regional Office, and other stakeholders, such as State Universities and Colleges (SUCs). They engaged in group discussions and meticulously delineated areas at risk (Figure 1) of various climatic events for the major crops in the province.

In Agusan del Norte, participants identified typhoon, flood, and drought as the major climate risks that frequently damage agricultural crops, particularly rice, coconut, and banana – the three main crops in the area. Participants in Agusan del Sur identified typhoon, heavy and continuous rainfall, and landslides as the three major climatic risks that cause substantial damage to their main crops, namely rice, corn, and banana.

Both provinces have agricultural production areas located within the Agusan River Basin. These municipalities serve as catch basins during typhoons and heavy rains, posing a threat to agricultural productivity in the covered municipalities. Farmers residing in these areas also note that flooding risks persist even without rain, as these areas, located below sea level, also serve as catchment for neighboring provinces such as Davao and Cagayan de Oro.

Figure 1. Stakeholders from Agusan del Norte participated in the delineation of vulnerable areas during events of the identified climate risks.

III. Key findings

Mr. Armando G. Valiente, Provincial Agriculturist of Agusan del Sur, emphasized in his welcome message during the CS-Mapping exercise the importance of participants not hesitating to provide accurate information to achieve comprehensive results. He said that the outcomes of this activity will be instrumental in their decision-making and planning processes, particularly in identifying the interventions needed by rice farmers (Figure 2).

“The overall outputs of this activity are important for the future decision makers as facilitators of development. The outputs will be used for recommendations to our principals, our municipal mayor and policy makers of the *Sangguniang Bayan* to produce doable plans for mitigation of the impacts of climate change. I thank IRRI for the opportunity for us to participate in this kind of activity”, according to Mr. Leonito C. Pasquito, Municipal Agriculturist of Las Nieves, Agusan del Norte.

Figure 2. Mr. Armando Valiente, PAO- Agusan Del Sur, delivering his welcome remarks during the actual CS-MAP exercise held last March 14, 2024 at Provincial Learning Center, Patin-ay, Agusan Del Sur.

The ClimBeR team will consolidate the CS-MAP results and will present the outputs including the climate risk maps and the proposed adaptation plans to the stakeholders of Agusan del Norte and Agusan del Sur for validation.

CS-MAP was also implemented in selected areas in the country, namely Guinayangan, Quezon, and Pamplona and Canaman in Camarines Sur. The selection of these locations was based on vulnerability to climate risk, the need for interventions, as well as capitalizing the linkages to partner organizations.

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