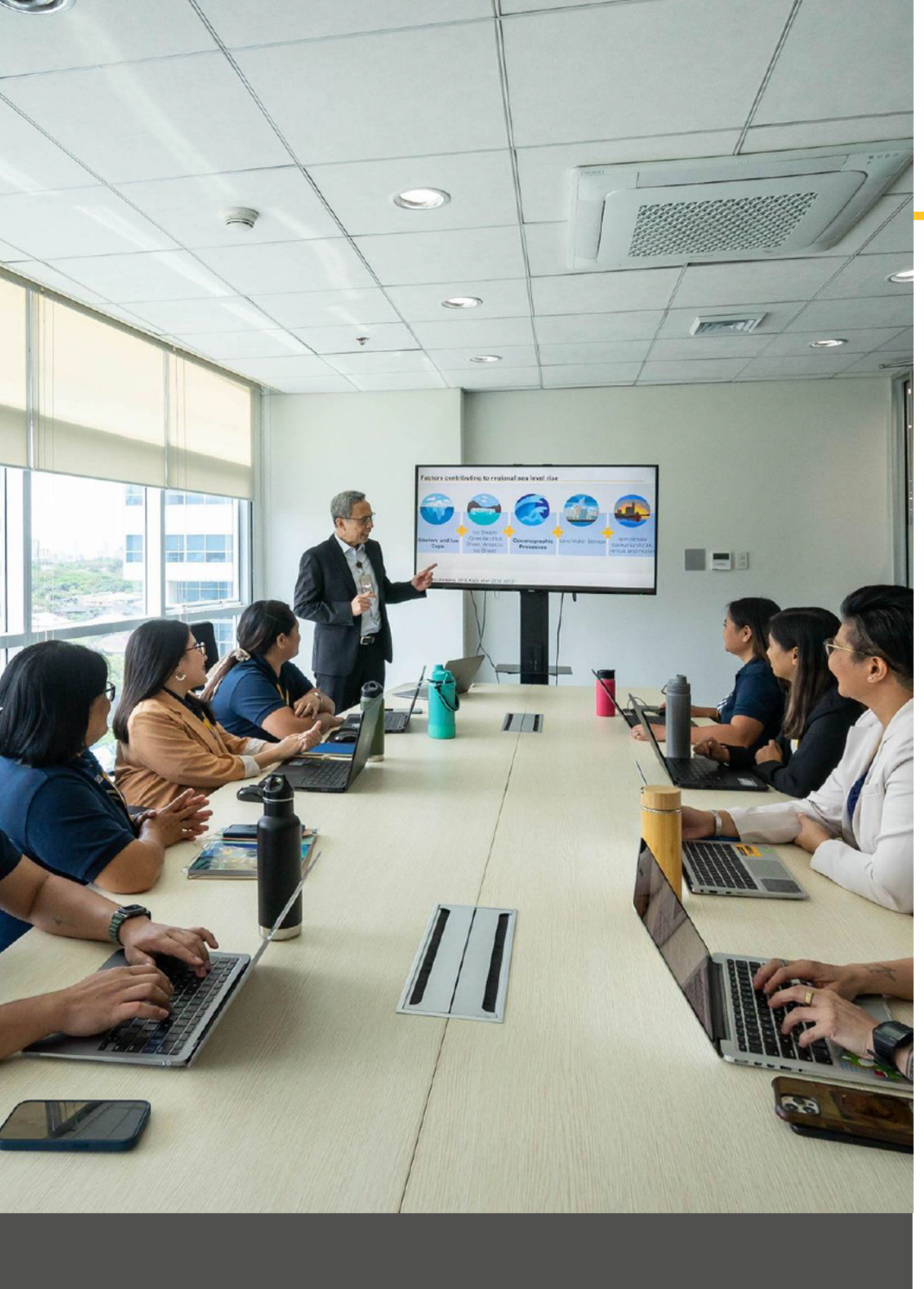
Bridging Climate Change Knowledge to Action: Web-based Tools for Adaptation

Oscar M. Lopez Center
December 15, 2023

Oscar M. Lopez Center
Science for Climate Resilient Communities



Oscar M. Lopez Center

- **Non-profit organization** born out of a private sector initiative to enhance research towards climate resilience

- Principled on the role of science in building resilient communities through **actionable knowledge** and climate information

- Founded in 2012 as a **response to research gaps** set against the country's vulnerability to climate change

How we work

SCIENCE

Provides the scientific backbone to increase climate change awareness and action

CO-PRODUCTION

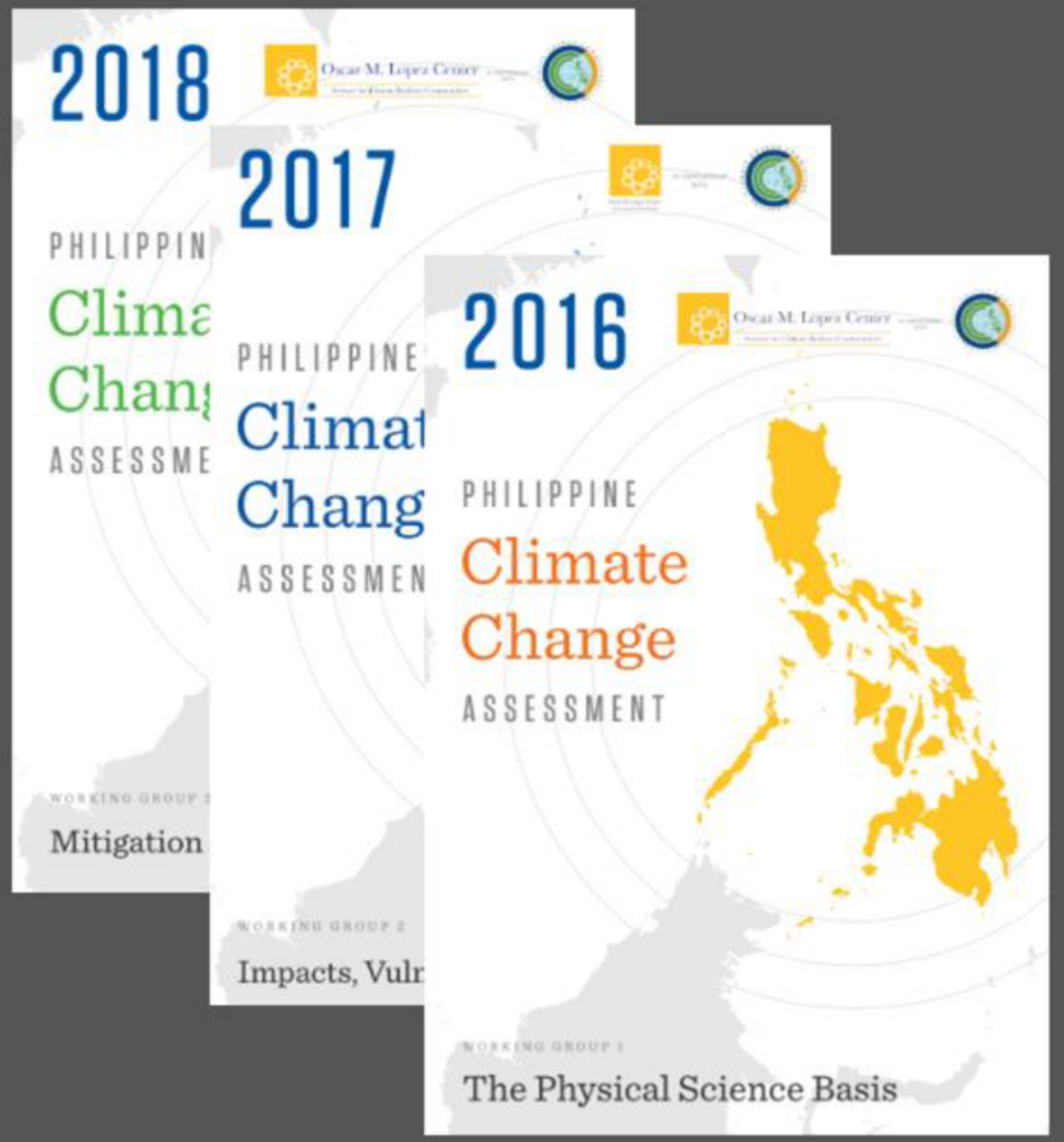
Engages across sectors and disciplines to ensure actionable knowledges is tailored and delivered to the most vulnerable

USER-CENTERED

Creates conditions & opportunities to understand & integrate user needs, & re-orient programs & processes towards co-ownership

GRANTS

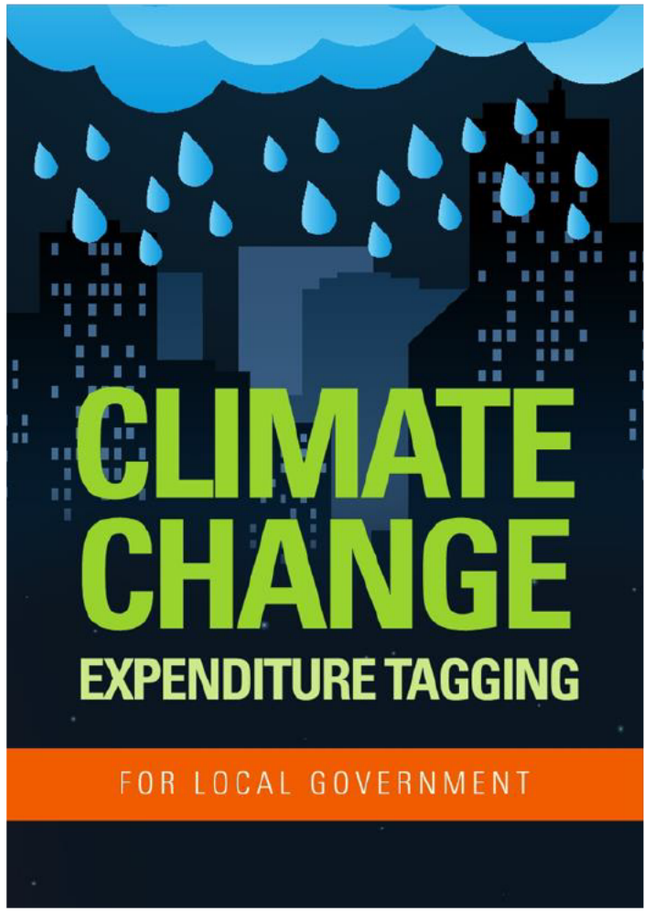
The first of its kind in the Philippines, continues to be the only grant giving NGO doing climate change research-based communications



Translating knowledge to usability

- **PhilCCA**: Localizing the global IPCC Reports to the Philippine context
- Developed in partnership with the **Climate Change Commission**
- **Challenge**: Need for a more appropriate format to bridge the knowledge-action gap

Responding to local government needs



Mandates public planners to tag plans and **budgets according to a set of typologies**, and to **indicate scientific basis**

CCET Typology Code

Climate Change Twin Pillar
A- Adaptation
M- Mitigation

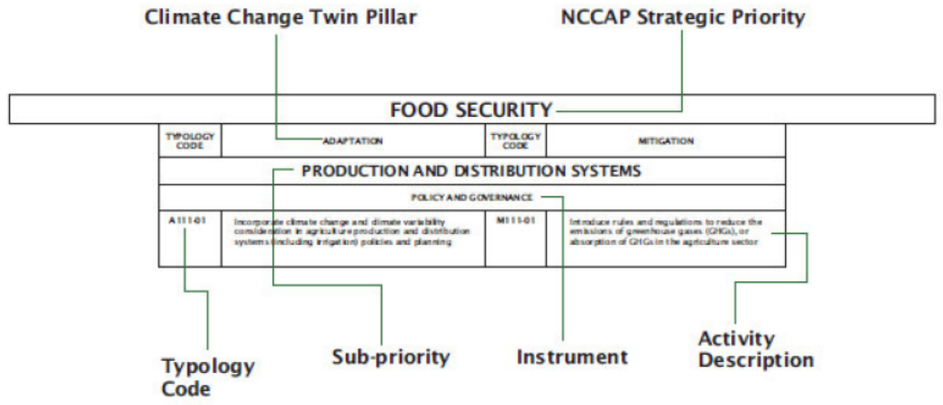
Sub-priority under each strategic priority

Activity

A111-01

NCCAP's Strategic Priority
1- Food Security
2- Water Sufficiency
3- Ecosystem and Environmental Stability
4- Human Security
5- Climate Smart Industries
6- Sustainable Energy
7- Knowledge and Capacity Development

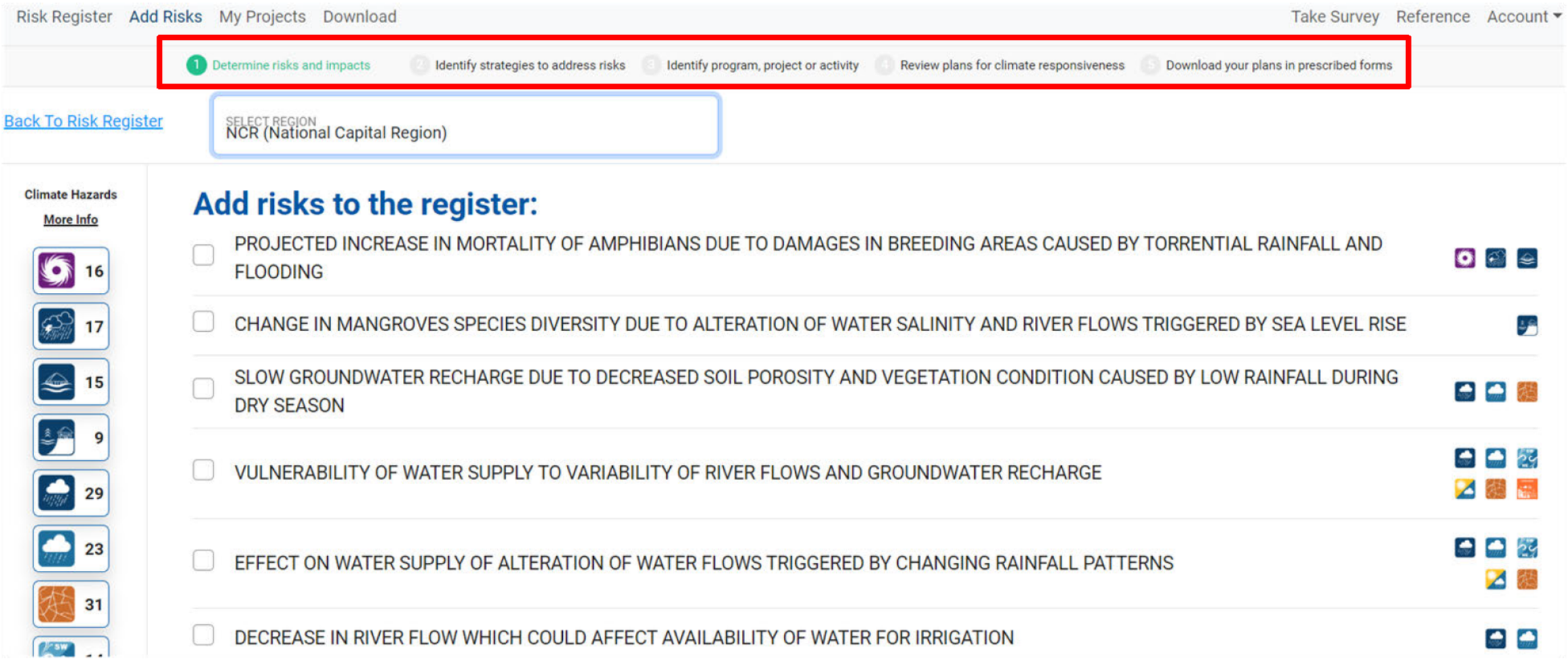
Instrument
1- Policy and Governance
2- Research and Development
3- Knowledge and Capacity Building & Training
4- Action Delivery



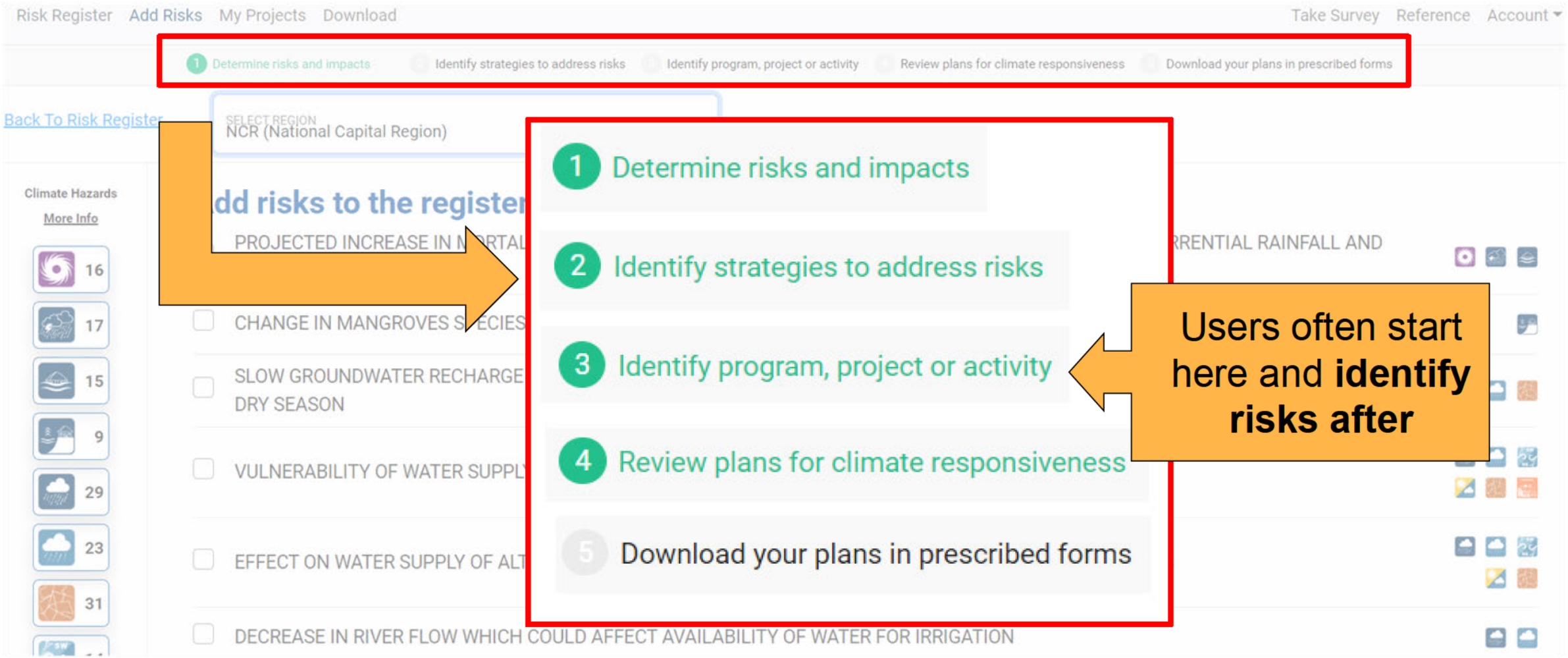
Risk-based expenditure tagging: The eCCET Helper

- **Integrates climate risk** information taken from the PhilCCA Reports
- Links climate information to public policy and planning thru the Climate Change Expenditure Tagging (CCET)
- Aligns climate information with the NCCAP Strategic Priorities and the CCET typologies

Planning process emphasizing a risk-based approach



Effective adaptation planning begins with identifying risks.

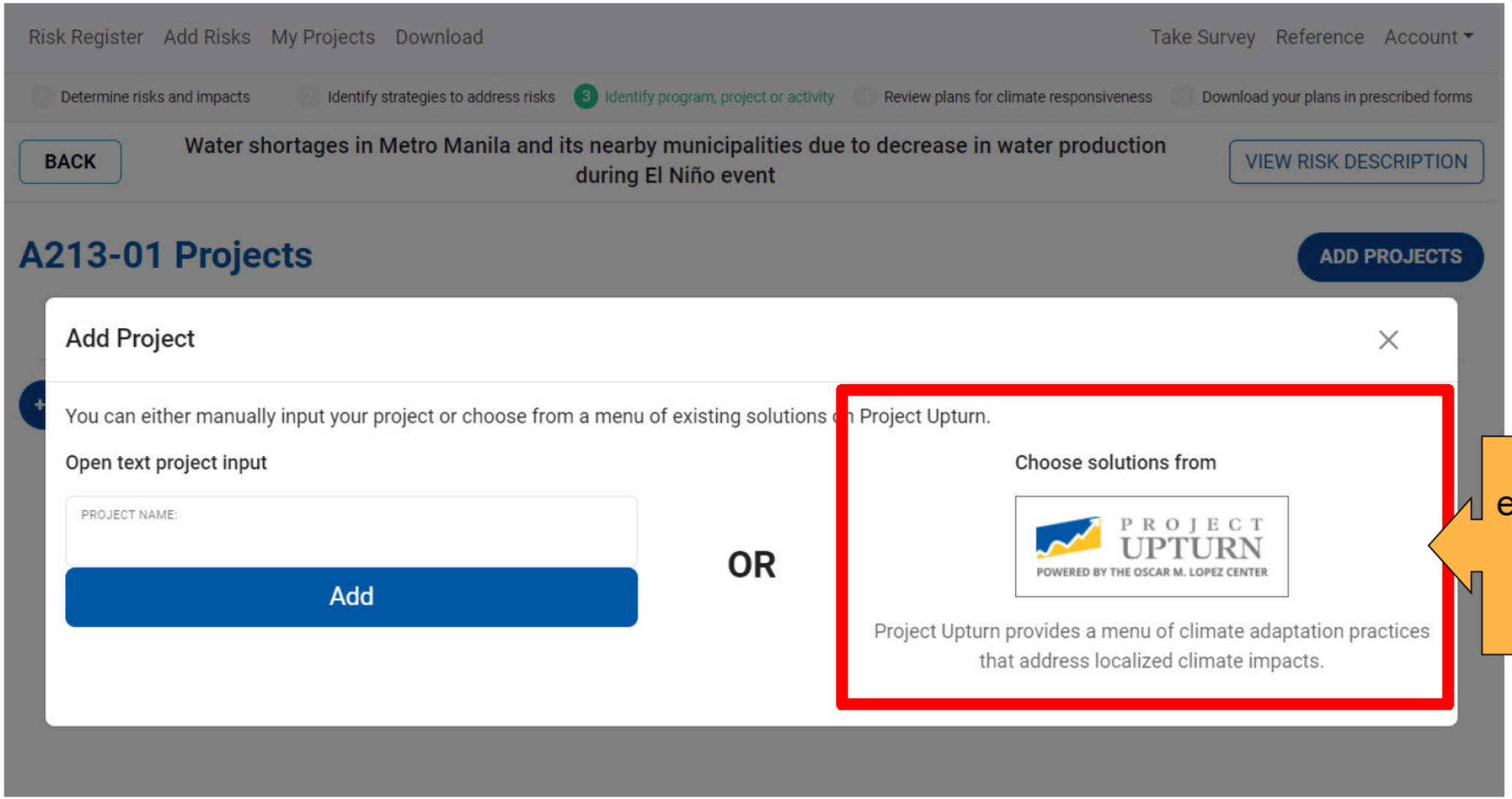


An inventory of CCA solutions: Project Upturn

- **UPTURN**: an improvement or **upward trend;** the point at which climate resilience begins to improve year-to-year

- Developing a tool that will identify, assess and prioritize **climate change adaptation solutions** based on localized risk and climate impacts

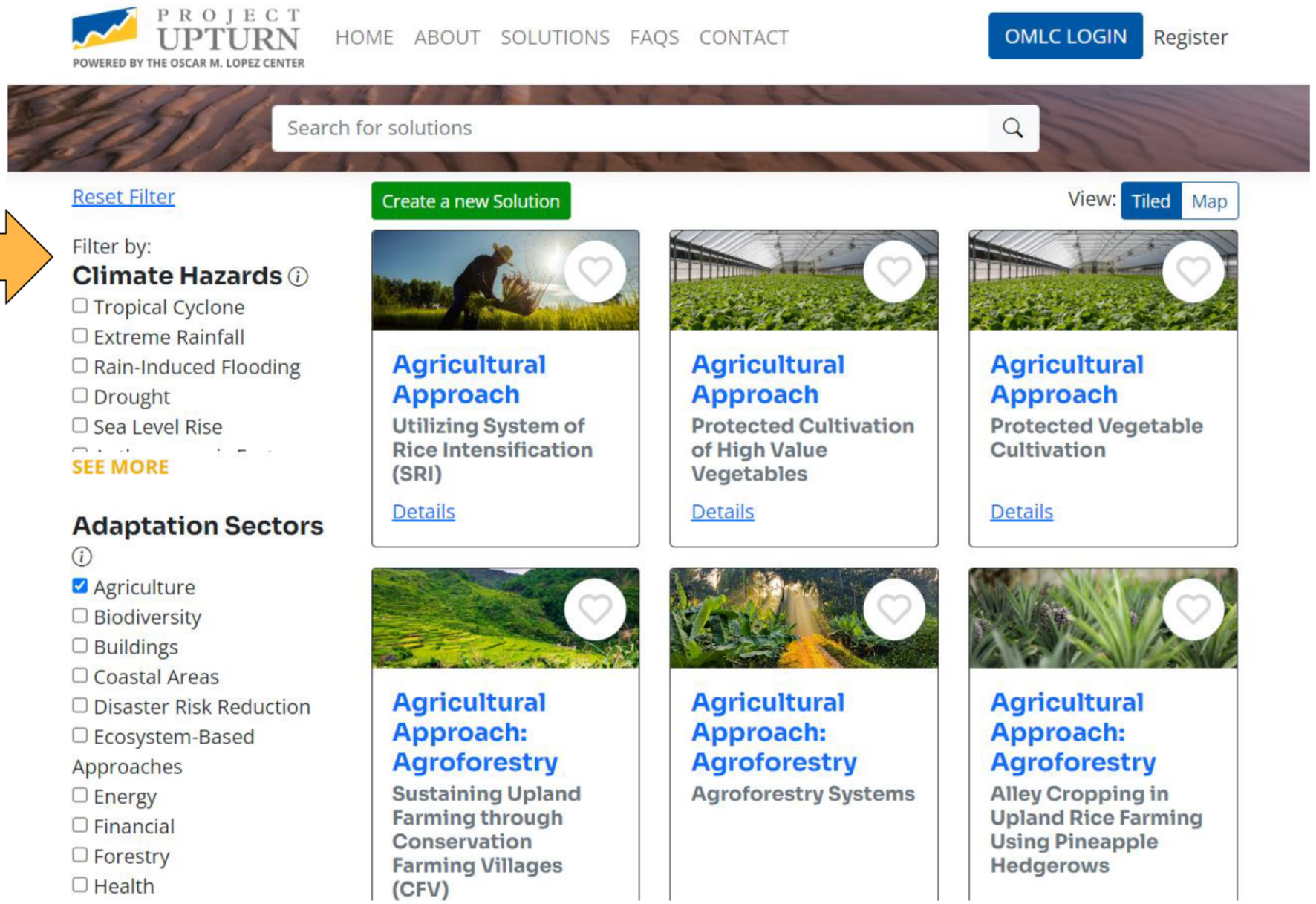
Integration: from planning to programming



Integrated with eCCET Helper at **project-identification step**

Effective adaptation planning begins with identifying risks.

Filter allows user to sort by **Climate Hazard**, **Adaptation Sector**, or **Location**



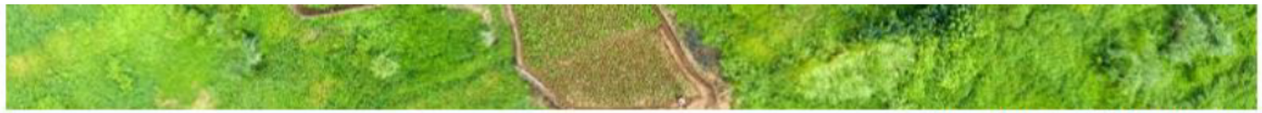


Photo by Tom Fisk on Pexels

Agricultural Approach: Farm Diversification

Save as PDF or Print

Corn-Rice-Green Corn Crop Rotation

Commonly, crop rotations are practiced to maintain soil productivity all year round and to increase crop yield. Most crop rotations propose alternatives to monocropping to maximize profit and to address loss of crops during dry seasons. However, in Jabonga, Agusan del Norte, many of the farmlands are located near Lake Mainit which overflows during periods of intense rainfall (November-February). During this period, the farmlands are heavily flooded and could not cultivate any crops. Corn-rice-green corn crop rotation is a practice proposed to compensate for the loss of profit during the flooded months [1].

Contents

Climate Adaptation Effectiveness ⓘ

Corn and rice is rotated to maximize the amount of staple food available for profit and as a food source during flooding. Green corn has a shorter cropping period compared to yellow corn. Including it in the crop rotation maximizes the remaining months before the onset of the flood to generate profit that would serve as buffer income for the farming households [1].

Climate Hazards ⓘ

- Rain-Induced Flooding

Locations ⓘ

- Jabonga, Agusan del Norte, Region XIII (Caraga Region)

Option to save/download

Simplified description of the climate change adaptation solution

Benefits of adopting the solution

Location/s where solution is applicable

CCET Instuments

- Action Delivery

Identified CCET Instruments

Target Group based on Vulnerability

Basic Sectors:

- Children
- Farmers and Landless Rural Workers
- Indigenous Peoples
- Persons with Disabilities
- Senior Citizens
- Women
- Youth and Students

Which **vulnerable sectors** are impacted?

Evaluations

Economic / Financial Effectiveness Low

The initial cost of implementation is PhP 39,500/hectare with a 3-year return on investment. Farmers practicing corn-rice-green corn crop rotation have an estimated annual profit of PhP 17,860/hectare and internal rate of return of 42%. Even if the corn and rice yield is lower, this practice is still much more profitable than monocropping [1].

Technical Feasibility High

This practice is highly applicable to areas where flooding occurs for two to four months. This crop rotation scheme entails technical knowledge and capabilities that could be supplemented by field schools and training by climate

Evaluates solutions based on:

1) **Economic** Feasibility
2) **Technical** Feasibility
3) **Social** Aceptability
4) **Environmental** Impact

Upturn + eCCET Helper Development: Phase 2

PROJECT UPTURN

Enhance
interoperability
between the tools

eCCET HELPER
DECISION SUPPORT TOOL FOR ADAPTATION PLANNING

Integrate a **Climate Change Risk Index** and **Climate Change Resilience Index** based on AHP

Update the **Risk Register** based on updated localized risk assessments (actual tagged)

OMLC Decision Support Toolkit

PROJECT UPTURN

eCCET HELPER
DECISION SUPPORT TOOL FOR ADAPTATION PLANNING

Sea Level Rise

Visualize **localized SLR projections, vulnerabilities, and impacts** to key sites in

Challenges ahead

- **Institutionalization** - Overlapping mandates of national governments hampers the capacity building efforts for usage of the tool
- **Public partnership-building** - Changes in administrations sometimes equates to changes in strategic positioning of climate change as a priority
- **Monitoring and Evaluation** - Gauging the translatability and usability of tools for improved co-production strategies

Visit OMLC tools

PROJECT UPTURN

upturn.omlopezcenter.org

eCCET HELPER
DECISION SUPPORT TOOL FOR ADAPTATION PLANNING

eccethelper.omlopezcenter.org

Let's work together.

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