**UNDP Thailand**

**Evaluation Report**

**“Mainstreaming Climate Change Adaptation and Disaster Risk Reduction in Development Planning in Thailand (MADRiD)" Project**

*Chitrapon Vanaspong, External Evaluator May 2017*

Table of Contents

[Executive Summary 2](#_Toc475528846)

[Abbreviations 7](#_Toc475528847)

[1. Introduction 8](#_Toc475528848)

[2. Methodology 17](#_Toc475528860)

[3. Evaluation Finding 20](#_Toc475528866)

[3.1 Relevance 20](#_Toc475528867)

[3.2 Efficiency 25](#_Toc475528873)

[3.3 Effectiveness 29](#_Toc475528878)

[3.4 Impacts & Sustainability 45](#_Toc475528890)

[3.5 Innovativeness 49](#_Toc475528895)

[3.6 Cross-cutting issues 51](#_Toc475528897)

[4. Lessons learned 53](#_Toc475528899)

[5. Recommendations 57](#_Toc475528906)

[Overall 57](#_Toc475528907)

[On Disaster Risk Assessment 57](#_Toc475528908)

[On mainstreaming DRR/CCA in development 58](#_Toc475528909)

[On Social Innovation for Disaster Risk Reduction 58](#_Toc475528910)

[Annexes: 60](#_Toc475528911)

[Annex 1: Project Evaluation Workplan 61](#_Toc475528912)

[Annex 2: List of materials consulted 62](#_Toc475528913)

[Annex 3: List of persons consulted 63](#_Toc475528914)

# Executive Summary

This is the Evaluation Report of the “Mainstreaming Climate Change Adaptation and Disaster Risk Reduction in Development in Thailand (MADRiD)” Project. The project is an integrated multi-sectorial and multi-donor initiative that aimed to integrate both disaster risk reduction (DRR) and climate change adaptation (CCA) in national and sub-national development policies, plans and budget.

This external evaluation was planned to assess the results of the Project, with the following specific objectives: 1) To review the project performance and assess its achievement; 2) To identify lessons learned and provide recommendations for the use of results and further replication by the Royal Thai Government and relevant stakeholders; and 3) To explore the possibility of UNDP being involved in future activities in this subject area.

Methods used in this project review included desk review, semi-structure interview, and SWOT analysis. A total number of 20 key partners were interviewed for this evaluation.

### Evaluation Finding

Overall, the Project team and management was successful in delivering outputs and outcomes as expected – with the exception of part of Output 1 and Output & 2 due to budget cut during the implementation period. Relevance and efficiency of the project was also considered high. While the Output 3 contributed greatly to the innovative aspect of the disaster risk reduction tools and collaboration with private sector. Mainstreaming of the DRA and DRM-PEIR into national and provincial planning was highly recommended by all parties as the next step – so that this could complete the expected outcomes that was not delivered during this Project period due to budget cut.

### 1) Relevance

**Finding 1:** The project is well aligned with the future DRR and CCA global agendas including the Sendai Framework for DRR and UNDP’s new 10-year global programme in support of country efforts to reduce the risk of disasters.

**Finding 2:** The Project is relevant to DRR national strategic direction that involve the establishment of DRR governance. The Project did so by providing means to achieve this national goal.

**Finding 3:** The Project design is strongly supported by the situational analysis and review of lessons learned from past UNDP interventions, therefore it is well aligned with country’s disaster vulnerability situation, and addressed gaps in DRR policies and governance.

**Finding 4:** Awareness on importance of disaster risk assessment has been increased is among provincial officials both Provincial Offices of Disaster Prevention and Mitigation and other sectors. However, organizational priority for budgeting and planning is still given to disaster response rather than risk reduction, therefore awareness on DRR could still be further increased at provincial level.

### 2) Efficiency

**Finding 5:** Technical supports from UNDP for the Project was reported by key partners to be excellent. Budget cut however prevented the Project from continuing with activities relating to DRR mainstreaming and hampered the delivery of key outputs.

**Finding 6:** Good coordination with government and private sector partners is key to efficiency of project implementation, although coordination with agencies at provincial level stakeholders can be improved by taking time going through the bureaucratic structure.

**Finding 7:** Project monitoring and evaluation mechanism was systematic and regular through UNDP Procedures, Project Executive Group (PEG), Project Management Coordination, and informal communication – which contributed to timely resolving emerging issues during the project implementation.

**Finding 8:** The Project has much flexibility for changes in budget and activities during its implementation so that it could meet respond to the situation and meet the needs of partners. The Project was reportedly to take into account of comments and suggestions from key partners.

### 3) Effectiveness

**Finding 9:** Overall, the project achieved majority of three expected outputs that laid a foundation for further scale up, although activities related to DRR/CCA mainstreaming in national and provincial government’s policies, plans, budgets and programmes were not fully implemented due to budget shortage – which was unavoidable external factor.

**Finding 10:** With regards to achievement of output 1, the Project completed the disaster risk assessment in two pilot provinces as planned but has not yet pursue “further using the results to mainstream DRR/CCA in one priority sector” due to budget cut as already mentioned in the previous finding.

**Finding 11:** On achievement of output 2, the project could not pursue integration of risk information in development planning at national and provincial level due to the shortage of budget although mainstreaming DRR activities was already planned in a specific sector (health) at provincial level. However, activities has laid background for key partners to mainstream DRR knowledge, capacity and mechanism at community level by establishing web-portal to be stationed at provincial office.

**Finding 12:** Four viable DRR innovations according to output 3 were developed and tested for future use – which is beyond the Project’s expected outputs of only three DRR innovations. Implementation of the project also yielded great lessons learnt on success factors for application of innovations – which include good strategy to effectively involve business, innovator’s willingness and entrepreneur skills as well as governmental authority’s buy-in.

**Finding 13:** On the achievement of outcome, 3 outputs of the project has laid the foundation for future mainstreaming of DRR in sectorial and provincial plans, policies and budget, although the tangible outcome of the project was not fully achieved due to shortage of time and budget cut.

**Finding 14:** The project has a number of strengths that contributed to the success implementation which include: high relevance to the country’s situation and strategy, excellent technical supports, innovativeness of approaches and ability to partner with a wide range of stakeholders. Budget cut is considered by all stakeholders as most important weakness that prevent the project to achieve expected goal.

### 4) Impacts & Sustainability

**Finding 15:** The Project has an impact on increased awareness and capacity of key actors (DDPM, NESDB, Chiang Rai and Songkhla Province) on disaster risk management different aspects.

**Finding 16:** Project produced excellent information and advocacy materials to be used for scaling and advocacy for better disaster risk governance in the future. Risk assessment report and risk maps are highly appreciated by provincial officials, but wider dissemination need to be considered.

**Finding 17:** Strengthen partnerships and engagement of government and non-government agencies in disaster related issues in Thailand is an outstanding impact created by the Project.

**Finding 18:** The Project has been designed with the consideration of sustainability and produced some key sustainability factors to ensure that its activities could be replicated in the future.

### 5) Innovativeness

**Finding 19:** Disaster risk assessment, DRM-PEIR and innovations on DRR were considered by stakeholders to be rather new initiative in Thailand, and as pilot project with some legacy for upscale.

### 6) Cross-cutting issues

**Finding 20:** The Project adhered to gender sensitive principle as it did not discriminate women’s participation in project activities and ensured that gender vulnerability was considered during disaster risk assessment. Female innovators could be further promoted as less women are interested in this field of technology.

### Recommendations

### Overall

**1) Continued partnership with and building capacity of DRR Key players in Thailand**

**For UNDP**

At national policy level, UNDP should continue to support capacity building for and partnership with DRR for Thailand’s key players i.e. DDPM and NESDB as well as DRR focal points for each governmental agencies through:

* Conducting pilot projects relevant to national policies and launching updated information materials.
* Creating dialogs to raise awareness of other government sectors on their relevance of DRR by organizing knowledge and experience sharing platforms among various partners; and sharing knowledge publications as well as constantly update the publication content.

**For RTG**

* It was recommended by UNDP for the RTG to pursue implementation of DRR mainstreaming activities in collaboration with UNDP on a cost-sharing basis.

### On Disaster Risk Assessment

**2) Replication of Climate/Disaster Risk Assessment**

**For UNDP**

* Develop capacity building/advocacy programmes to enhance knowledge and skills of relevant stakeholders at all levels
* Further encourage participation and ownership of stakeholders, through formation of working group
* Develop guiding tools for integrated planning of DRR and CCA

**For RTG**

* Set up the national coordination mechanism for replication of risk assessments in other provinces and at national level
* Pilot provinces should be further supported to expand its knowledge to other nearby provinces and set up an education center for study trips

**For UNDP & RTG**

* **Improve and reconsider the process of DRA** especially on the following issues:
  + Addressing technical level of DRA process to match with capacity of provincial and local partners, or identifying specialists to closely support during the process.
  + Technical support should be provided both leading the DRA process as well as building capacity of provincial team
  + Improve the baseline data for future climate and Disaster Risk assessments (Data collection, details, format, compatibility, etc.), and improve data sharing across agencies in the various data format (including GIS-based data) for appropriate decision-making and resource allocation
  + Enhance GIS skills of relevant officials in charge of risk assessments

**3) Application of risk information for DRM / development planning**

**For UNDP and RTG**

* Advocate on the use of risk information for effective decision making with national & provincial governments
* Advocate on the use of Web Portal as an effective tool for risk information sharing and application
* Transfer the web portal hosting and administration from ADPC to provincial governments for sustainability

### On mainstreaming DRR/CCA in development

**4) The Project should find ways to continue to implement Component 2, so that the expected outcome is yielded and lessons could be learnt on DRR mainstreaming for further upscale.**

**For UNDP**

* Refine recommendations from DRM-PEIR to advocate for changes in budgeting DRR
* Share experience of other countries on DRR mainstreaming with key stakeholders in Thailand;

**For RTG**

* Work with selected sectors to pilot the use of risk information in sectoral development planning and implementation
* Sensitize budgeting system using the results of DRM-PEIR to bridge the gaps in policy implementation

### On Social Innovation for Disaster Risk Reduction

**For UNDP**

**5) Strategic thinking on the use of innovation**

* UNDP need to think strategically on who would use or scale the innovation before finding strategy to promote the use of innovations.

**6) Partnership with private sector:**

* UNDP should have clear strategy on how it would promote innovations among private sectors – which area to focus (i.e. capacity building for personnel or innovations), and what are incentive for business.
* Strengthen partnerships with private sector especially in scaling up tested prototypes
* Tap interested new partners in other thematic areas in developing innovation.

**7) Database and sharing experiences on innovations for DRR**

* Support the development of database of disaster related innovations and compile all innovations into the database
* Promote ideas and innovations in other countries
* Lessons learned from Social innovation shall be embedded in the social innovation for development center to be established by UNDP. UNDP can help running process, and ensure that innovation can feed back social problem in reality.

# Abbreviations

ADPC Asian Disaster Preparedness Center

CCA Climate change adaptation

DRR Disaster risk reduction

DRM PEIR Disaster Risk Management: Public Expenditure Review

DIM Direct Implementation Modality

DDPM Department of Disaster Prevention and Mitigation

NESDB National Economic Social and Development Board

PEG Project executive group

PDPM Provincial Office of Disaster Prevention and Mitigation

PWG Project working group

RTG Royal Thai Government

UNDP United Nations Development Programme

# 1. Introduction

UNDP has implemented *“Mainstreaming Climate Change Adaptation and Disaster Risk Reduction in Development Planning in Thailand (MADRiD)" Project* during January 2012 to December 2016.

As the Project has come to an end in December 2016, it is required to assess outcomes and measure impacts of the Project by conducting a final evaluation and developing the final evaluation report. This document provide framework on final evaluation of the project

## 1.1 Summary project description

“Mainstreaming Climate Change Adaptation and Disaster Risk Reduction in Development in Thailand (MADRiD)” is an integrated multi-sectorial and multi-donor initiative that aims to integrate both disaster risk reduction (DRR) and climate change adaptation (CCA) in national and sub-national development policies, plans and budget. The project is built on two recent UNDP projects implemented with the Royal Thai Government, “Strengthening the Capacity of Vulnerable Coastal Communities to Address the Risk of Climate Change and Extreme Events” and “Strengthening Disaster Management Capacities in Thailand” and extends the already existing UNDP’s support, taking into account both CCA and DRR using an area-based approach and a single project implementation structure to ensure greater coherence, synergy and cost-effectiveness. Ultimately the Project’s impact will be to enhance National development processes towards climate and disaster resilience and environmental sustainability.

### Project Goal & objectives:

With the goal of contributing to overall CP/UNDAF United Nations Development Assistance Framework outcome “Climate change adaptation and disaster risk reduction mainstreamed by key line ministries into their sectorial and provincial plans, policies and budget”, the project is focused on achievement of three key objectives:

1. To ensure that disaster and climate risk information is available and accessible for effective decision-making;
2. To equip national and provincial governments with skills, tools and methodologies for mainstreaming DRR/CCA into development policies, plans and budgets;
3. To develop and implement social innovations for disaster resilience by promoting active participation of the at-risk communities as well as public private partnership for disaster risk reduction.

With financial contributions from Bureau for Policy and Programme Support (BPPS-UNDP), Asian Development Bank (ADB), public and private sectors the project is implemented by UNDP through a Direct Implementation Modality (DIM) with the Office of National Economic and Social Development Board (NESDB) and Department of Disaster Prevention and Mitigation (DDPM) of the Royal Government Thailand as Senior Beneficiaries while Asian Disaster Preparedness Center (ADPC) and Change Fusion, serving as Responsible Parties.

### Table 1: Description of outputs, target and activities

|  |  |  |
| --- | --- | --- |
| **Outcome: Climate change adaptation and disaster risk reduction mainstreamed by key line ministries into their sectorial and provincial plans, policies and budget.** | | |
| **Output and baseline indicators** | **Output targets for 4 years** | **Indicative Activities** |
| **Output 1:** Climate/Disaster risk assessment and mapping for selected provinces conducted and information are made accessible for effective decision-making    *Baseline:*   * *Low level of awareness among stakeholders on climate/DRA* * *National risk assessment conducted in 1994 based on expert perception* * *Comprehensive multi-hazard risk and vulnerability assessments and maps not in place to inform/guide decision-making* * *DDPM has hazard maps in place but often confused with risk and vulnerability maps* | Targets for 2015   * One technical briefing on climate/DRA for CCA/DRR mainstream * Two inception meetings for two targeted provinces * Data sources for gender disaggregated hazard, exposure, vulnerability, and capacity assessments identified and analysed taking account of socio-economic aspects * Climate/Disaster Risk Assessment in two disaster prone provinces, including the risk atlases and methodological guideline developed * Two dissemination seminars | Activity 1.1 Conduct two inception meetings for two targeted provinces to introduce Climate/Disaster Risk Assessment (DRA) methodology and implementation plan with national and provincial stakeholders    Activity 1.2 Identify data sources and collect/analyse sex and gender disaggregated data for hazard, exposure, vulnerability, and capacity assessments, taking account of socio-economic aspects    Activity 1.3 Develop Climate/Disaster Risk Assessment in two disaster-prone provinces, including the risk atlases and methodological guideline    Activity 1.4 Conduct two dissemination seminars on Climate/Disaster Risk Assessment findings to decision makers and other relevant stakeholders, including communities that participated in DRA |
| **Output 2:** National and provincial governments equipped with skills and tools to mainstream DRR/CCA in their development policies, plans, budgets and programs    *Baseline:*   * *Low level of mainstreaming DRR/CCA in provincial and sectorial development plans, policies and budgets* * *DRR and CCA continue to be treated separately despite their close linkages* * *Lack of tools and frameworks for mainstreaming DRR and CCA* * *Lack of system to track public expenditure and to review institutional effectiveness for DRM* | Targets for 2015   * DRM Public Expenditure and Institutional Review (DRMPEIR) completed * Training curriculum for mainstreaming CCA/DRR in provincial development planning developed     Target for 2016   * Targeted officials trained on mainstreaming CCA/DRR in provincial development plan * DRR/CCA mainstreaming strategy for the selected sector in the pilot province, covering the 5 mainstreaming ‘spheres’ with gender sensitivity developed * Instruments for development planning for identified sector at the provincial level developed * Targeted sector officials equipped with knowledge and skills on using the mainstreaming instruments and able to apply/operationalize DRR/CCA interventions * The process and mainstreaming methodology documented and shared | Activity 2.1 Conduct DRM Public Expenditure and Institutional Review (DRM-PEIR)    Activity 2.2 Develop training curriculum for mainstreaming CCA/DRR in provincial development planning    Activity 2.3 Sensitize relevant stakeholders on the use of DRA findings and the need for DRR measures/mainstreaming    Activity 2.4 Conduct the training on mainstreaming CCA/DRR in provincial development planning with selected government officials from national and provincial authorities and other relevant stakeholders to identify a priority sector for DRR/CCA mainstreaming based on results of Activity 1.4 (DRA findings) and Activity 2.1 (Mainstreaming DRR into Development Planning study)    Activity 2.5 Develop a DRR/CCA mainstreaming strategy for the selected sector in the pilot province, covering the 5 mainstreaming ‘spheres’ with gender sensitivity    Activity 2.6 Develop instruments for development planning for identified sector at the provincial level    Activity 2.7 Organize a 2-day workshop for 10-15 sector officials on using the mainstreaming instruments in the selected province and help the selected sector apply/operationalize DRR/CCA interventions    Activity 2.8 'Document mainstreaming process and methodology, monitor and draw lessons learned from pilot DRR/CCA mainstreaming interventions, and organize a day-long learning workshop in Bangkok with 60 participants |
| **Output 3:** Social innovations for disaster risk reduction developed and implemented with the involvement of public private partnership and the at risk communities    *Baseline:*   * *Lack of innovative approaches to engage public and private sectors to invest in DRR/CCA* * *Limited engagement of the at-risk communities and the general public in DRR work.* | Targets for 2015   * Scope for calls for ideas identified * Ground work for PR/communication materials and campaigns for social innovation developed * Calls for ideas launched * At least 30 idea submissions received     Target for 2016   * At least 3 viable prototypes developed into projects/ ventures. * Additional private sector partners and funding mobilised * The process of prototyping and applying DRR innovations in at-risk communities documented and shared | Activity 3.1 Organise a brainstorming event targeting relevant stakeholders to identify scope for calls for ideas    Activity 3.2 Develop and prepare ground work for PR/communication materials and campaigns for social innovation    Activity 3.3 Announce calls for ideas to define problems and their potential solutions and monitor submissions    Activity 3.4 Identify and set up a team of resource persons, mentors (DRR experts, IT/engineers, relevant government officials, private sector actors) and potential partners (programmers, designers, and business developers) to help develop prototypes    Activity 3.5 Organize a social innovation camp in Bangkok, inviting partners and judges, to identify viable prototypes to be developed into projects/ventures    Activity 3.6 Develop crowd-funding campaign to raise public/private support and funding and to promote and feedback on the developed prototypes    Activity 3.7 Organise incubation labs with key partners to work out implementation steps and apply DRR innovations with at-risk communities    Activity 3.8 Document prototyping process and pilot DRR innovation application |

### Table 2: Target population and stakeholders

|  |  |  |
| --- | --- | --- |
| **Partnership strategy:**  The project is implemented by UNDP Thailand (under the Democratic Governance and Social Advocacy (DGSA) unit) in close collaboration with the NESDB, DDPM, relevant line ministries and Provincial Administrations.  The project further sought and promote partnership and collaboration at national and county level with technical, research and academic institutions, UN agencies, WB/GFDRR, JICA, USAID as well as sector-specific organizations and other civil society entities, namely Asian Disaster Preparedness Center (ADPC) and Change Fusion. Project; | | |
| **Output** | **Responsible agencies** | **Target populations** |
| **Output 1:** Climate/Disaster risk assessment and mapping for selected provinces conducted and information are made accessible for effective decision-making | UNDP/ ADPC | Chiang Rai and Songkhla Provinces |
| **Output 2:** National and provincial governments equipped with skills and tools to mainstream DRR/CCA in their development policies, plans, budgets and programs | UNDP/ A  DPC ( Due to the budget shortage, UNDP decided to conduct the study of DRM-PEIR instead with no partnership with ADPC ) | NESDB, DDPM, relevant line ministries and Provincial Administrations |
| **Output 3:** Social innovations for disaster risk reduction developed and implemented with the involvement of public private partnership and the at risk communities | UNDP/ Change Fusion | Social innovation developer and general public |

## 1.2 Objectives & scope of the Evaluation

### Objectives

The overall objective of this assignment is to assess the results of the “Mainstreaming Climate Change Adaptation and Disaster Risk Reduction in Development Planning in Thailand (MADRiD)" Project. The specific objectives are:

1. To review the project performance and assess its achievement;
2. To identify lessons learned and provide recommendations for the use of results and further replication by the Royal Thai Government and relevant stakeholders;
3. To explore the possibility of UNDP being involved in future activities in this subject area.

### Scope of the evaluation

Based on the TOR of the Project Evaluation, the scope of the work for the evaluation includes:

* Review of the project design, implementation and its achievement. In addition to completing a standard project evaluation, the evaluator shall focus on:

1. Identifying and analyzing the results and impacts of the above project on the capacity of DDPM, NESDB, Chiang Rai and Songkhla Province as ones of the key actors on disaster risk management and integration of risk information in development planning, as well as a wider impact of the project on disaster risk governance.
2. Assessing if and how the project contributes to strengthening partnerships and engagement of government and non-government agencies in disaster related issues in Thailand
3. Analyzing if and how the project is able to sustain its innovative activities, and whether or not further upscaling/replication took place.

* Identification of lessons learned and recommendations. Lessons learned (both positive and negative) and tools/instruments used to achieve the expected results, especially which have been used for capacity building activities, should be documented. In collecting the lessons learned, the evaluator should look into the innovative and catalytic aspects of the project and relate them to recommendations for future practices.
* Exploration of the possibility for UNDP future intervention in this subject area. Based on lessons learned, the recommendations should also be made to UNDP for future programme intervention in disaster risk management and disaster risk governance in Thailand.

The following is the key guiding questions for determining the scope and focus of the evaluation:

* Is the project relevant and appropriate to the current governance and development situation in Thailand?
* Is this project able to respond to the challenges and emerging needs of RTG and the country?
* Did it address any critical issues considered important by the government and stakeholders?
* Is the project innovative and catalytic, and if so, in what ways?
* Has it initiated any pilot activities that can be replicated in the future?
* Has it served to push the frontier of interest of the governments and other stakeholders on disaster risk assessment, disaster risk reduction, and innovation for disaster risk management in the future?
* Did the project provide due emphasis to gender in the context of initiatives it supported?

### Expected Outputs and Deliverables:

Specific deliverables during the assignment are as follows:

* Deliverable 1: Initial scope and schedule of project evaluation plan - within 2 working days;
* Deliverable 2: Draft evaluation report for comment and review: approximate day of submission - within 16 working days;
* Deliverable 3: A final evaluation/assessment report which incorporated comments and suggestions: approximate day of submission -within 20 working days.

### Evaluation Questions

Based on the objectives o the evaluation, incorporating with a set of five criteria for evaluation released by OECD-DAC 1991 (relevance, effectiveness, efficiency, impacts, and sustainability), the evaluation questions include – but not limited to - the following:

### Table 3: Evaluation criteria and detailed questions

|  |  |
| --- | --- |
| **Evaluation criteria** | **Detailed questions as per evaluation Objectives/questions** |
| ***Relevance*** | 1. Is the project relevant and appropriate to the current governance and development situation in Thailand? 2. Is this project able to respond to the challenges and emerging needs of RTG and the country? 3. Did it address any critical issues considered important by the government and stakeholders? |
| ***Efficiency*** | 1. Does the project provide enough technical and financial support to the implementation of project? 2. To what extent do Project coordination and management mechanisms support implementation? 3. Are there any systematic monitoring systems put in place? 4. How flexible is the project management in response to the needs to changes of the activities, delay of implementation and insufficient use of funds? |
| ***Effectiveness*** | 1. What is the level of progress towards achievement of the Project’s planned outputs/outcomes? In what ways and to what extent have the outputs/outcomes of the project contributed to the project’s goal? 2. What were the major enable factors that influenced the achievements of project objectives and expected results? What are challenges influencing the non-achievement? |
| ***Impact*** | 1. What are the results/and impacts of the project on the **capacity of key actors** (DDPM, NESDB, Chiang Rai and Songkhla Province) on disaster risk management and integration of risk information in development planning? 2. What are impacts of the project on disaster risk governance? 3. Does the project contributes to strengthening partnerships and engagement of government and non-government agencies in disaster related issues in Thailand and how? |
| ***Sustainability*** | 1. Has it initiated any pilot activities that can be replicated in the future? 2. Does and how the project is able to sustain its innovative activities, and whether or not further upscaling/replication took place? |
| ***Innovativeness*** | 1. Is the project innovative and catalytic, and if so, in what ways? 2. Has it served to push the frontier of interest of the governments and other stakeholders on disaster risk assessment, disaster risk reduction, and innovation for disaster risk management in the future? |
| ***Cross-cutting issues*** | 1. Did the project provide due emphasis to gender in the context of initiatives it supported? |
| ***Lessons learned*** | 1. What are the lessons learned (both positive and negative) of the project especially in the following elements?    * Tools/instruments used to achieve the expected results, especially which have been used for capacity building activities    * The innovative and catalytic aspects of the project |
| ***Recommendations*** | 1. Based on lessons learned, what are the possibilities for UNDP future intervention in disaster risk management and disaster risk governance in Thailand? |

## 1.3 Structure of the report

The Evaluation Report is structured as per the following:

**Executive Summary**

* 1. **Introduction**
     + Background & Project summary
     + About the evaluation
       - Scope and objectives
       - Evaluation questions
  2. **Methodology**
  3. **Evaluation Finding**
     1. Relevance
     2. Efficiency
     3. Effectiveness
     4. Impacts & Sustainability
     5. Innovativeness
     6. Cross-cutting issues
  4. **Lessons learned**
  5. **Conclusions & Recommendations**
  6. **ANNEXES**

# 2. Methodology

## 2.1 Methodological Approach

The methodological framework employed for this evaluation was mainly qualitative and comprised of a mix of primary and secondary data collection techniques.

This evaluation mainly involved a review of documents and interviewing key informants at ministry and provincial level, as well as stakeholders who provided technical supports to the project. Other development agencies that have worked with the project were also consulted.

## 2.2 Data Collection Methods

Methods used in this project review include: 1) Desk review 2) Semi-structure interview 3) SWOT analysis. In addition, evaluator provided some short case studies to display good practice or identify lessons learned as appropriate.

For both the desk review and key informant interviews, information gathering protocols and tools were developed for systematic and consistent data collection, logical analysis/interpretation and presentation.

*1) Desk review*

The evaluator reviews the project and other background documents provided by UNDP. These materials will later be verified during fieldwork and interview. *List of documents reviewed is provided in the Annex 2*

*2) Interview with key respondents*

The evaluator interviewed a total of 20 persons for this evaluation. Each interview was conducted for 40 – 60 minutes, in group and in person. Visits to Chiang Rai and Songkhla Provinces were made during 2nd week of January 2017 to interview key stakeholders of the project. An interview guideline was used in all interviews although focuses of interview were different among key informants as described in Table 2 below.

*List of persons consulted is provided in the Annex 3*

### Table 4: Category of interviewees by project output

|  |  |
| --- | --- |
| **Output** | **Key informants** |
| Overall outputs and outcome of the project. | * UNDP * DDPM * NESDB * PEG Members |
| **Output 1:** Climate/Disaster risk assessment and mapping for selected provinces conducted and information are made accessible for effective decision-making | * ADPC * Chiang Rai Province (PDPM) * Songkhla Province (PDPM) |
| **Output 2:** National and provincial governments equipped with skills and tools to mainstream DRR/CCA in their development policies, plans, budgets and programs | * UNDP * NESDB * ADPC * DDPM |
| **Output 3:** Social innovations for disaster risk reduction developed and implemented with the involvement of public private partnership and the at risk communities | * Change Fusion * Participating Social innovation developers * Other resource persons, mentors (DRR experts, IT/engineers, private sector actors) |

*3) SWOT Analysis*

The SWOT Analysis is ‘useful when qualitatively assessing, for example, the services provided by the project, relationships between project stakeholders and the organisations of the implementing partners, local groups and the project team itself’ (IFAD Options for Monitoring and Evaluation, Annex D, page D 21).

For this final evaluation, this tool was used to analyse the strengths, weaknesses, opportunities and threats (SWOT) of the Project to demonstrate both internal and external factors influencing success and challenges faced in the project implementation (as to respond to the evaluation criteria – effectiveness).

## 2.3 Evaluation Process

The evaluation process consisted of three phases: (i) inception phase, (ii) data gathering phase and (iii) reporting phase.

*Inception Phase*

The inception phase started with the desk review of project document, meeting minutes and reports of all events, and related written materials. This phase includes initial meetings with UNDP - in order to inform the project review process and development of tools, and concluded with the presentation of *initial scope and schedule for project evaluation plan* to UNDP.

*Data Gathering Phase*

The data gathering phase of the Project Review started after the evaluation framework has been approved. It consists of interviews and field visits as designed during the Inception Phase.

*Reporting Phase*

The reporting phase of the Project Review started after the data collection process and consists of three sub-phases: 1) the preparation of the draft report, 2) the inclusion of comments received from UNDP and 3) lastly the revision and submission of the final report.

## 2.4 Institutional Arrangement

The Evaluator was responsible for conducting a Final Evaluation of the MADRiD Project including collecting data in Songkhla and Chiangrai Province.

The Evaluator reports to the Programme Specialist, Democratic Governance and Social Advocacy Unit, UNDP Thailand, and work in close collaboration with MADRiD Project Manager and Programme Associate of UNDP Thailand, and relevant counterparts.

Duty station and expected places of travel: Home based, with travels within Bangkok and to Chiang Rai and Songkhla Provinces for interviews with relevant partners. UNDP will help arrangement meetings with beneficiaries in Bangkok.

# 3. Evaluation Finding

## 3.1 Relevance

This section on project relevance reviews some strategic choices made by UNDP and analyses its appropriateness relative to the context in the country, as well as the extent to which it is suited to the priorities and policies of the Thai government and UNDP’s mandate.

|  |
| --- |
| ***Evaluation Questions:*** |
| 1. *Is the project relevant and appropriate to the current governance and development situation in Thailand?* 2. *Is this project able to respond to the challenges and emerging needs of RTG and the country?* 3. *Did it address any critical issues considered important by the government and stakeholders?* |

### Finding 1: The project is well aligned with the future DRR and CCA global agenda including the Sendai Framework for DRR and UNDP’s new 10-year global programme in support of country efforts to reduce the risk of disasters.

**The Project is relevant to Sendai Framework for Disaster Risk Reduction 2015-2030.** The Framework was adopted at the Third UN World Conference on Disaster Risk Reduction in Sendai, Japan, on March 18, 2015[[1]](#footnote-1) succeeding the Hyogo Framework for Action (2005-2015). The Sendai Framework outlines seven targets and four priorities for action to prevent new and reduce existing disaster risks. It aims to achieve the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries over the next 15 years.

**The Project is also relevant to UNDP’s new 10-year global programme**, called ‘5-10-50’, will support countries and communities to deliver better risk-informed development, and targets 50 countries over 10 years, with a focus on five critical areas: risk awareness and early warning; risk-governance and mainstreaming; preparedness; resilient recovery; and local/urban risk reduction.[[2]](#footnote-2)

The 5 Components are: 1. Risk Assessment and Communication; 2. Early Warning and Preparedness; 3. Inclusive Risk Governance; 4. Recovery; and 5. Urban and Local Level Risk Management.[[3]](#footnote-3)

Relevance of the Project Outputs to Sendai Framework and UNDP’s new 10-year global programme was detailed in Table 5.

### Table 5: Relevance of MADRiD Project Outputs with Sendai Framework and UNDP’s 5-10-50 Programme

|  |  |  |
| --- | --- | --- |
| **Sendai Framework’s Priorities for Action** | **UNDP’s 5-10-50 Programme** | **UPDP Thailand’s MADRiD Project Outputs** |
| **Priority 1: Understanding disaster risk** | **1. Risk Assessment and Communication:**   * Applying risk assessment to risk management, planning and development * Climate risk assessment * Disaster loss and damage database/observatories * Regional risk profiling | **Output 1:** Develop Climate/Disaster risk assessment in two pilot provinces (Songkhla and Chiang Rai) and apply risk information in development planning   * Develop evidence-based risk information at the pilot province & support the improvement of disaster loss/damage database |
| **Priority 2: Strengthening disaster risk governance to manage disaster risk** | **3. Inclusive Risk Governance**   * Contextual analysis * Inclusive risk governance institutions * Risk-informed development planning and budgeting * Policy and legislative framework   **5. Urban and Local Level Risk Management**   * Evidence-based and risk-informed urban development * Strengthen urban and local level risk governance * Develop local & community level disaster & climate risk assessments * Support gender-sensitive disaster and climate risk management * Advocacy and knowledge management | **Output 2.1:** Conduct Disaster Risk Management Public Expenditure and Institutional Review (DRM-PEIR) at the national level with one provincial level.  **Output 2.2:** Mainstream DRR/CCA in development planning in one pilot province  - Integrate risk information from Output 1 and results of DRM-PEIR in development planning processes to strengthen risk governance in Thailand. |
| **Priority 3: Investing in disaster risk reduction for resilience** | **2. Early Warning and Preparedness**   * National & local early warning system (EWS) connected to at risk-communities * Institutional support and multi-stakeholder interface for EWS * EWS communication network for dissemination of messages * Improving existing climate information systems and adopt new and alternative technologies * Preparedness plans with consideration for different risk levels and characteristics of the exposed communities   **4. Resilience recovery**   * Strengthen capacity in damage, loss and need assessment * Develop policies and institutional frameworks for recovery * Promoting financial mechanisms for recovery * Regional support for advocacy, partnerships & knowledge management | **Output 3:** Social innovations for disaster risk reduction developed and implemented with the involvement of public private partnership and the at risk communities. |
| **Priority 4: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.** |
| **Global targets:**  **3) Increases:** 1) # of countries with national & local DRR strategy, 2) International cooperation to developing countries, 3) availability & access to multi-hazard EWS & disaster risk reduction & assessments  **4) Reductions:** 1) mortality, 2) affected people, 3) economic loss, 4) damage to critical infrastructure and disruption to basic services |  | **Goal:**   1. Enhance availability of disaster/climate risk information and assessments in Thailand 2. Strengthen risk governance in Thailand 3. Strengthen partnership and cooperation & investment in DRR in Thailand |

### Finding 2: The Project is aligned with DRR National strategic direction in establishing DRR governance. The Project did so by providing means to achieve this national goal.

**The Project is informed by the 11th National Economic and Social Development Plan (2012-2016)** and particularly aligned to the 6th development strategy of the Plan that focus on managing natural resources and environment towards sustainability. The Plan promoted the concepts of “2Ps 2Rs” (prevention, preparedness, response and recovery) across all government agencies.

**The Project support DDPM to conduct disaster risk assessment which is part of the Strategy 1[[4]](#footnote-4) of the National Disaster Mitigation and Prevention Plan of 2015 by offering technical supports, piloting DRA methods, and documentation of process for further duplication.** Contribution of UNDP had continue from its previous project in working closely with DDPM to build institutional capacity to take on disaster risk reduction mandate effectively.

According to the Disaster Prevention and Mitigation Act of 2007, the Department of Disaster Prevention and Mitigation (DDPM) under Ministry of Interior is mandated to take the lead on disaster prevention and mitigation. The government has reinforced its commitments to the national Disaster Risk Reduction (DRR) agenda by drafting the National Disaster Prevention and Mitigation Plan to make DRR a priority. Under the National Disaster Mitigation and Prevention Plan of 2015, four strategies were spelled out: Disaster risk reduction, integrated efforts in disaster management, building back better, and international collaboration.

### Finding 3: The Project design is strongly supported by the situational analysis and review of lessons learned from past UNDP interventions, therefore it is well aligned with country’s disaster vulnerability situation, and addressed gaps in DRR policy and governance.

According to the project document, the Project design is strongly supported by a synthesis of the **situational analysis of Thailand’s vulnerability to hazards**[[5]](#footnote-5).

In addition, the Project Document cited that **the awareness to risks and hazards remain low** among government agencies and the people. This was reflected in development policies such as natural resource management, land use planning and urbanization that did not recognize potential risks.

**The lessons learned from UNDP’s previous two projects on DRR and CCA resulted in the development of this project strategies**. A lesson learned was that, in order to effectively mainstream climate change adaptation and disaster risk reduction into development planning process, there is need to work directly with National Economic and Social Development Board (NESDB) which responsible for leading and coordinating development planning in the country, along with DDPM which has the mandate for coordinating disaster interventions in the country.

### Finding 4: Awareness on importance of disaster risk assessment has been increased among provincial officials both Provincial Offices of Disaster Prevention and Mitigation and other sectors. However, organizational priority for budgeting and planning is still given to disaster response rather than risk reduction, therefore awareness on DRR could still be further increased at provincial level.

Provincial Offices of Disaster Prevention and Mitigation are focal points at provincial level to coordinate efforts to implement the National Plan. A lesson from a previous project included working at the lower level of government to pilot the conduct of disaster risk assessment and use the results to further influence policy and decision making. Results from disaster risk assessment and DRM-PEIR could also be mainstreamed into the provincial planning process both at provincial level and at specific sectors.

At the beginning of DRA Process, pilot provinces identified hazards that they wanted to study, therefore DRA is relevant to provincial situation and needs. The process of DRA has strengthened knowledge and capacity on DRR of provincial level officials. In Songkhla Province, public health sector was selected as a model for mainstreaming the DRA in its planning but this activity was not conducted due to budget cut. , However, it was reflected from interviews with provincial officials that organizational priority for budgeting and planning is still given to disaster response rather than risk reduction therefore awareness on DRR could be further increased at provincial level.

## 3.2 Efficiency

This section analyses some factors that may have influenced project efficiency either positively or negatively including technical and financial supports, coordination among stakeholders, and flexibility to changes in response to changing situations and emerging needs of project partners.

|  |
| --- |
| ***Evaluation Questions:*** |
| 1. *Does the project provide enough technical and financial support to the implementation of project?* 2. *To what extent do Project coordination and management mechanisms support implementation?* 3. *Are there any systematic monitoring systems put in place?* 4. *How flexible is the project management in response to the needs to changes of the activities, delay of implementation and insufficient use of funds?* |

### Finding 5: Technical supports from UNDP for the Project was reported by key partners to be excellent. Budget cut however prevented the Project from continuing with activities relating to DRR mainstreaming and hampered the delivery of key outputs.

**Major sources of technical and financial supports of the project come from UNDP.** It was noted that in-country technical specialists on DRR are still difficult to identify. The UNDP Project Manager was reported by key partners to be important technical resource for the project.

Other source of technical supports are from specialized organisations responsible parties for project implementation: **Asian Disaster Preparedness Center (ADPC)** played key roles in conducting disaster risk assessment in two pilot provinces and planned mainstreaming DRA and DRM-PEIR into development planning (ADPC is not in DRM-PEIR) [[6]](#footnote-6). **Change Fusion[[7]](#footnote-7) and its sub-contractor Good Factory**, was responsible for implementing output 3 of this project (Social innovation for DRR developed and implemented with the involvement of the public-private partnership and at-risk community).

Also for the output 3, technical expertise from various stakeholders were drawn to provide to innovators during the development of their prototypes, including those from government agencies, UN agencies, CSOs, and private sector. Some expertise contributed include: telecommunication, GIS, IT, livelihood and agriculture, child protection, design and entrepreneurship. **Technical supports for the Project was reported to be sufficient.**

**On financial resource, the Project funding was cut by USD 92,830 during the 2nd year of project implementation, a number of activities that would have contributed to the DRR mainstreaming process was not pursued in 2017.** This resulted in unachieved outputs and affected the achievement of outcome. (See more details in 3.3 Effectiveness).

### Finding 6: Good coordination with government and private sector partners is key to efficiency of project implementation. , although coordination with agencies at provincial level stakeholders can be improved by taking time going through the bureaucratic structure.

Under this project, UNDP – through the MADRiD Project Manager - managed to establish partnership among GOs, CSOs and private sectors. These partners contributing to project implementation in different aspects at both national and provincial level.

Coordination between UNDP and national partners with provincial partners could be improved so that provincial government and relevant officials are sensitized on the importance of disaster risk assessment and the use of it in provincial development planning. From interviews with key respondents, it was reflected that awareness of some provincial officials on DRA was still low. Project goal and strategies were not well aware as well as the mandate of UNDP itself.

It was suggested, for example, UNDP should have conducted informal meetings with key persons such as provincial governor to provide background of the project and introduce UNDP prior to official seminars.

### Finding 7: Project monitoring and evaluation mechanism was systematic and regular through UNDP Procedures, Project Executive Group (PEG), Project Management Coordination, and informal communication which contributed to timely resolving emerging issues during the project implementation.

The Project monitoring and evaluation was conducted in accordance with established UNDP procedures. An inception workshop was conducted with full project team, government counterparts, and implementing partners so that they understand and take ownership of the project’s goal and objectives. Other project M&E system includes periodic monitoring, annual monitoring, and final evaluation.

The Project Executive Group (PEG) was also established to provide overall leadership and oversight of the project. PEG met twice per year to discuss progress, identify gaps, review and approve work plans as well as resolve any major issues in the implementation of the project. PEG also helped facilitate the project to connect with other partners. During the project implementation period, PEG played an important role in adjusting project strategies and activities to ensure that it responds to the situation and appropriateness of protocol.

However, roles of PEG members in decision making on project directions are varied depending on their authorities and mandates. For example, DDMC ? (DDPM?) played a key role in selecting two pilot provinces for the project as it has provincial offices directly responsible for DRR in all provinces.

Project Management Coordination – composes of NESDB, DDPM and UNDP – assigned a secretariat to help facilitate communication between the Project and executives of the agencies. This channel of communication was not yet effective as for some partners the secretariat could not influence the policy maker by itself without involvement of UNDP.

At the provincial level, a Project Working Group (PWG) were established in both pilot provinces. PWG – however – supported ADPC in collecting data for DRA rather than having coordination or monitoring role.

Informal update through various means – such as Group Line, emails and phone calls are used for updating information and communication, and upfront issues during the Project implementation could be timely addressed.

### Finding 8: The Project has much flexibility for changes in budget and activities during its implementation so that it could respond to the situation and meet the needs of partners. The Project was reportedly to take into account of comments and suggestions from key partners.

The Project adopted a unique nature of project implementation, as it will be implemented by UNDP through Direct Implementation Modality (DIM) with NESDB as the responsible party. The DIM modality helped reduce the logistic and administrative burden to NESDB associated with the day-to-day running of the project, and avoid lengthy bureaucratic system. This modality was proved to help project management flexible to changes and adaptations during implementation.

Key partners interviewed feel that their suggestions and recommendations for changes in the project were heard. Project Executive Group (PEG) recommended for changes in work plan during bi-annually meetings. In most cases, the Project made changes accordingly to PEG suggestion. UNDP also adapted timeframe and methods to conduct activities based on suggestions from informal meeting with partners.

Some of the changes made during the project implementation are:

* Risk assessment dissemination workshops were originally planned to conduct at provincial level. A national seminar however was added in to also to inform national partners.
* DRA guideline was added into the original outputs to provide detailed methods with examples on how DRA can be conducted.
* For DRM-PEIR, the project did not originally target DRR Focal Points as specified in the National Plan on Disaster Management. When it was informed by DDPM about the DRR focal points in each governmental organization, it restrategise this activity so that focal points have increased capacity to report accordingly to Sendai Framework as required.
* For Innovation, an additional exhibition to launch the innovations was conducted at the end of the project – which was not in the work plan but suggested to add during PEG meetings.
* For the orientation workshop on DRA web portal operation, PDPM Songkhla suggested that participants should also include operational staff members and lab boys along with executives of the agencies to ensure that people who would mind the server understand the concepts. This was agreed by the project.

## 3.3 Effectiveness

This section analyses some factors that may have influenced project effectiveness either positively or negatively. Effectiveness is defined as the extent to project strategies and activities succeeded in producing quantitative and qualitative outcomes as planned in their work plan and project monitoring plan.

|  |
| --- |
| ***Evaluation Questions:*** |
| 1. *What is the level of progress towards achievement of the Project’s planned outputs/outcomes? In what ways and to what extent have the outputs/outcomes of the project contributed to the project’s goal?* 2. *What were the major enable factors that influenced the achievements of project objectives and expected results? What are challenges influencing the non-achievement?* |

### Finding 9: Overall, the project achieved majority of three expected outputs that laid a foundation for further scale up, although activities related to DRR/CCA mainstreaming in national and provincial government’s policies, plans, budgets and programmes were not fully implemented due to budget shortage – which was unavoidable external factor.

In order to attain this overall goal and achieve the expected outcome, the project aimed at completing the following outputs:

* Output 1: Climate/Disaster risk assessment and mapping for selected provinces conducted and information are made accessible for effective decision-making
* Output 2: National and provincial governments equipped with skills and tools to mainstream DRR/CCA in their development policies, plans, budgets and programs
* Output 3: Social innovations for disaster risk reduction developed and implemented with the involvement of public private partnership and the at risk communities

Each output was achieved through implementation of a series of activities, which has indicated in the table below:

### Table 6: Summary of Project Achievement by Outputs

|  |  |
| --- | --- |
| **Outputs** | **Achievements** |
| **Output 1:** Climate/Disaster risk assessment and mapping for selected provinces conducted and information are made accessible for effective decision-making | * **Pilot climate/disaster risk assessments completed in two provinces of Thailand** (Chiang Rai Province: earthquake, flash floods and drought; and Songkhla Province: floods, wind storm, coastal erosion) & risk information is made available in print and online for public access as well as for effective decision-making by government officials in these provinces and for scale-up and replication by NESDB and DDPM. *(targeted 2 provinces, completed 2 provinces)* * **The methodologies in conducting climate/disaster risk assessments were captured and translated into a disaster risk assessment guideline,** in which DDPM is planning to take on as a guidance for further replication of risk assessments in other provinces as well as to set up a governance mechanism to scale-up risk assessments in Thailand. * **The Web Portals for Climate/Disaster Risk Information were developed for Chiang Rai and Songkhla** and trainings were conducted to sensitize provincial government officials to utilize risk information and mainstream climate change adaptation (CCA) and disaster risk reduction (DRR) in provincial and sectoral development planning in the provinces. NESDB has also expressed the needs to pilot the use of risk information in development planning within the provinces and utilize the lessons learned for potential replication in the future. |
| **Output 2:** National and provincial governments equipped with skills and tools to mainstream DRR/CCA in their development policies, plans, budgets and programs    2.1 Expenditure and Institutional Review (DRM-PEIR) conducted  2.2 DRR/CCA mainstreamed | * **A comprehensive review of DRM-PEIR were completed** which serves as a practical tool for the RTG in addressing the gaps of DRM policy-institution-budget spheres. The results of this study is useful for mainstreaming DRR into sectoral policies, planning and implementation through the national platform of DRR focal points from various government agencies & can be used to report the country’s progress in DRM under the Sendai Framework for Disaster Risk Reduction. * **The DRR/CCA mainstreaming** in national and provincial government’s policies, plans, budgets and programmes did not happened due to budget cut. |
| **Output 3:** Social innovations for disaster risk reduction developed and implemented with the involvement of public private partnership and the at risk communities | * **Four social innovations for DRR were developed** by young innovators with support of **24 partner agencies from government, private sector and Civil Society Organizations (CSOs).** These innovations were tested and piloted with at-risk communities and were highlighted in national news, television programmes and printed media. These innovations were picked up by a private enterprise for potential commercialization and the discussions between innovators and this private enterprise is in progress. *(targeted 3 prototypes with 5 partnerships, completed with 4 prototypes and 23+ partnerships)* |

### Finding 10: With regards to achievement of output 1, the Project completed the disaster risk assessment in two pilot provinces as planned but has not yet pursue “further using the results to mainstream DRR/CCA in one priority sector” due to budget cut as already mentioned in the previous finding.

***Output 1: Climate/Disaster risk assessment and mapping for selected provinces conducted and information are made accessible for effective decision-making***

#### Overall strategy

The project aimed to engage relevant stakeholders to conduct disaster risk assessments in two selected provinces. The aim of this activity is not only to develop risk maps, but also to sensitise the utilization of risk assessment results in disaster risk reduction and risk assessment planning. The project also planned develop disaster risk assessment methodological guidelines for potential scaling up by relevant government agencies.

#### Achievement

The implementation of this output went according to the plan and climate/disaster risk assessments in Chiang Rai and Songkhla Provinces were completed. The final outputs include:

1. **Technical reports on climate/disaster risk assessment and risk atlases of Songkhla and Chiang Rai**. The technical reports capture not only the process taken to complete the assessments, but also highlight the maps and how they can be interpreted for further usages. The recommendation part of the reports also emphasizes on the improvement in data collection which will aid future conduct of risk assessments, together with the guided application of risk information by various sectors in the provinces.
2. **Risk assessment methodological guideline in Thai**.

Upon completing the assessments, two dissemination seminars on climate/disaster risk assessments were conducted in Chiang Rai and Songkhla with the Provincial Working Groups (PWGs). The results were validated by PWGs prior to finalization into the technical reports and risk atlases.

One National Dissemination / Knowledge Sharing Seminar was also conducted in Bangkok together with the launching of climate/disaster risk profiles of the two provinces. The event welcomed more than 150 participants from stakeholders.

Results of disaster risk assessment was also used in handling the disaster situation. See an example in the box below:

|  |
| --- |
| ***Experience of using DRA in Songkhla***  *At the end of 2016 to early 2017, Songkhla Province was affected by seasonal floods. The Songkhla PDPM had a chance to use the web portal and found that the risk information provided are accurate and correctly corresponded to the flooding situation.*  *DRA information was used in assessing possible impacts on hospitals and other key facilities in Krasaesin and Ranode Districts so that relevant authorities can plan for preventing the buildings and equipment from flood.*  *This affirms that the process taken in the risk assessment was right. If PWGs were further stimulated on more creative and systematic thinking, they would be able to utilize these web portals in a more beneficial way.*  *Songkhla also wishes that this kind of project is continued and volunteers to lead the development of ‘cluster model’ on risk assessment and risk management, particular with the Deep South provinces such as Yala, Satoon, Pattani and Narathiwat.*  *A similar process with MADRiD Project can be done with additional annual forum for regional experience sharing and dialoging for further collaboration.* |

It was also expected that the results of climate/disaster risk assessments will only be useful if the users adopt and utilize risk information in their works. DRA results could be used during the provincial planning in the next round. For Chiang Rai, provincial plan for 2018 – 2021 was already done. Or it could be utilized during action planning and budgeting for fiscal year of 2018.

In longer run, however, **the pilot provinces have not yet become a role model for mainstreaming DRR** as planned. Due to budget cut, **the Project could not pursue with the activity to “further using the results to mainstream DRR/CCA in one priority sector”,** as originally planned. If happened, it would have built the capacity of key government ministries and sectors, develop customized, home-grown tools and methodologies for disaster/climate risk assessment and mainstreaming which will be used as advocacy tool to lobby RTG to allocate money to use the same methodology to scale up interventions in the remaining provinces and sectors of the economy. In addition, the piloting of this activity would have drawn a number of guidelines, lessons learned and examples which could be used as a showcase for other countries.

### Table 7: Summary of Project’s targets and activities– Planned VS Actual – Output 1

|  |  |  |
| --- | --- | --- |
| **Output 1:** Climate/Disaster risk assessment and mapping for selected provinces conducted and information are made accessible for effective decision-making | | |
| **Target** | **Activity** | **Implementation status & Achievement** |
| * One technical briefing on climate/DRA for CCA/DRR mainstream * Two inception meetings for two targeted provinces | Activity 1.1 Conduct two inception meetings for two targeted provinces to introduce Climate/Disaster Risk Assessment (DRA) methodology and implementation plan with national and provincial stakeholders | Completed.  Both two inception meetings and a national seminar were conducted. |
| * Data sources for gender disaggregated hazard, exposure, vulnerability, and capacity assessments identified and analysed taking account of socio-economic aspects | Activity 1.2 Identify data sources and collect/analyse sex and gender disaggregated data for hazard, exposure, vulnerability, and capacity assessments, taking account of socio-economic aspects | Completed. |
| * Climate/Disaster Risk Assessment in two disaster prone provinces, including the risk atlases and methodological guideline developed | Activity 1.3 Develop Climate/Disaster Risk Assessment in two disaster-prone provinces, including the risk atlases and methodological guideline | Completed.  Hazard assessment, exposure assessment, and vulnerability assessment were conducted.  UNDP and ADPC have developed the risk assessment methodological guideline that captures the procedures in conducting risk assessment with examples from direct experience in the two provinces. |
| * Two dissemination seminars | Activity 1.4 Conduct two dissemination seminars on Climate/Disaster Risk Assessment findings to decision makers and other relevant stakeholders, including communities that participated in DRA | - The final technical reports on climate/disaster risk assessment and mapping for Chiang Rai and Songkhla Provinces were reviewed by Provincial Working Groups in Q3/2016.  Disaster Risk Assessment (DRA) Guideline drafted and revised based on the comments received from the Department of Disaster Prevention and Mitigation (DDPM).  DDPM held a series of discussion with UNDP and GIZ-GFDRM on potential future collaboration to scale up disaster risk assessment activities with other provinces in Thailand based on the guidance provided in this DRA Guideline and lesson learned from the implementation of MADRiD Project. |

### Finding 11: On achievement of output 2, the project could not pursue integration of risk information in development planning at national and provincial level due to the shortage of budget although mainstreaming DRR activities was already planned in a specific sector (health) at provincial level. However, activities has laid background for key partners to mainstream DRR knowledge, capacity and mechanism at community level by establishing web-portal to be stationed at provincial office.

***Output 2: National and provincial governments equipped with skills and tools to mainstream DRR/CCA in their development policies, plans, budgets and programs***

#### Overall strategy

The Project aimed to draw on results of disaster risk assessment to inform effective disaster risk reduction and climate change adaptation mainstreaming measures at the national and provincial level.

#### Achievement

**Public Expenditure and Institutional Review (DRM-PEIR) was conducted as planned** and the study has been completed with an oversight by Disaster Risk Reduction (DRR) Focal points at the national level and government officials in Chiang Rai for the provincial case study. The draft of final report in Thai completed before the end of December 2016. A Regional Workshop to share the results of DRM-PEIR Thailand with Laos PDR and Vietnam is planned be organized by UNDP BRH in Quarter 1 of 2017.

The Report has come up with some good information on Thailand’s utilization of budget relating to disaster management. It said, for example, that disaster related budget accounts for 5% of total central budget. Half of the budget was for emergency response and another half is for construction. This reflects that the country budget is spent mostly to response and relief, and that budget for DRR should be significantly increased.

According to DDPM, the report has good information but its recommendations are still too broad. To be effectively used for planning and budgeting advocacy, it was suggested that the DRM PEIR can go deeper to conduct cost analysis of budget used on DRR and response to show that how much more expensive it is to restore and recovery in comparison to spending on DRR.

**Due to the budget cut, the project could not pursue integration of risk information in development planning at national and provincial level**. Originally, provincial team would be encouraged to use DRA findings and DRM-PEIR in provincial development planning. The PWGs in Chiang Rai reviewed the risk profiles and agreed to select health sector as the pilot sector for mainstreaming activities. However, due to the funding shortage, the actual pilot process of mainstreaming risk information into health sector could not take place.

**Two web portals were developed as a tool to disseminate climate/disaster risk information and for use with decision makings for disaster risk management and development planning in Chiang Rai and Songkhla.** The activities were adjusted to a development of a more practical tool for decision makings which serve as a key entry point for any sector in both provinces to mainstream risk information in development. Associated trainings to sensitize key stakeholders in using risk information in development planning were also completed. The webs were hosted by ADPC and would to be further transferred to the provinces for long-term sustainability. It would then rely on the provinces if they have political will and/or capacity to maintain and keep this web-portal up to date.

In the case of Chiang Rai, there are some GIS experts in the Provinces but they may belong to various government offices that may directly or indirectly engaged with disaster risk management/development planning. The project team left the decision for the provinces to decide on how they would like the web portals to be transitioned.

### Table 8: Summary of Project’s targets and activities– Planned vs. Actual – Output 2

|  |  |  |
| --- | --- | --- |
| **Output 2:** National and provincial governments equipped with skills and tools to mainstream DRR/CCA in their development policies, plans, budgets and programs  2.1 Expenditure and Institutional Review (DRM-PEIR) conducted  2.2 DRR/CCA mainstreamed | | |
| **Target** | **Activity** | **Implementation status & Achievement** |
| Targets for 2015   * DRM Public Expenditure and Institutional Review (DRMPEIR) completed | Activity 2.1 Conduct DRM Public Expenditure and Institutional Review (DRM-PEIR) | Completed.  DRM-PEIR Framework developed as a guideline for further implementation.  A Team of international and national specialists were mobilized to start implementation. |
| * Training curriculum for mainstreaming CCA/DRR in provincial development planning developed | Activity 2.2 Develop training curriculum for mainstreaming CCA/DRR in provincial development planning | Risk assessment web portals for both provinces were developed to store all maps and data layers in GIS format and will be conducting the trainings for provincial government officers in reading relevant risk maps and utilising risk profiles in their development works in October 2016. |
| Target for 2016   * Targeted officials trained on mainstreaming CCA/DRR in provincial development plan | Activity 2.3 Sensitize relevant stakeholders on the use of DRA findings and the need for DRR measures/mainstreaming | Meetings with provincial governor of Chiang Rai and Songkhla were conducted by UNDP and ADPC to discuss the possible use of DRA reports in provincial planning, and maintenance of DRA web portal. |
| Activity 2.4 Conduct the training on mainstreaming CCA/DRR in provincial development planning with selected government officials from national and provincial authorities and other relevant stakeholders to identify a priority sector for DRR/CCA mainstreaming based on results of Activity 1.4 (DRA findings) and Activity 2.1 (Mainstreaming DRR into Development Planning study) | Training for maintenance of DRA web-portal was conducted for officials from two provinces. |
| * DRR/CCA mainstreaming strategy for the selected sector in the pilot province, covering the 5 mainstreaming ‘spheres’ with gender sensitivity developed | Activity 2.5 Develop a DRR/CCA mainstreaming strategy for the selected sector in the pilot province, covering the 5 mainstreaming ‘spheres’ with gender sensitivity | Not completed due to budget cut. |
| * Instruments for development planning for identified sector at the provincial level developed | Activity 2.6 Develop instruments for development planning for identified sector at the provincial level | Not completed due to budget cut. |
| * Targeted sector officials equipped with knowledge and skills on using the mainstreaming instruments and able to apply/operationalize DRR/CCA interventions | Activity 2.7 Organize a 2-day workshop for 10-15 sector officials on using the mainstreaming instruments in the selected province and help the selected sector apply/operationalize DRR/CCA interventions | Not completed due to budget cut. |
| The process and mainstreaming methodology documented and shared | Activity 2.8 Document mainstreaming process and methodology, monitor and draw lessons learned from pilot DRR/CCA mainstreaming interventions, and organize a day-long learning workshop in Bangkok with 60 participants | Not completed due to budget cut. |

### Finding 12: Four viable DRR innovations according to output 3 were developed and tested for future use – which is beyond the Project’s expected outputs of only three DRR innovations. Implementation of the project also yielded great lessons learnt on success factors for application of innovations – which include good strategy to effectively involve business, innovator’s willingness and entrepreneur skills as well as governmental authority’s buy-in.

***Output 3: Social innovations for disaster risk reduction developed and implemented with the involvement of public private partnership and the at risk communities***

#### Overall strategy

Social innovations was used as an entry point to leverage more support and funding for DRR from the private sector or social investors who are considered as non-traditional partners to the UNDP. It would also draw in potential for DRR innovations among communities, local groups, change agents, academia, social entrepreneurs, private sectors and people working at the frontline of disasters, and stimulate or a more sustainable collaboration among potential groups during normal times.

#### Achievement

**All activities in Output 3 were completed as planned.** The final outputs include 4 viable DRR innovations; 1) iSAAC – portable SOS device (already edited), 2) One Come – floating plantation platform (already edited), 3) Our Shelter – Paper Box toys or relieve stress products for children in temporary shelter, and 4) The Emergent – foldable boat.

The implementation of this Social Innovation for Disaster Risk Reduction Campaign concluded with the final award ceremony and exhibition of the abovementioned innovations which were the result of partnership among 24 partner agencies – government and non-governmental sectors included.

Additionally, 6 VDO clips and 1 photo book which documented DRR innovation process were produced and captured in various media outlets including prime time TV news programme and talk show.

It is worth to mention that **the process for developing innovations is an innovative one.** While most other innovation projects finished at competition and awarding best ideas, this project pursue further steps to ensure that the innovation can be used in real disaster situation.

Although one of the outstanding aspects of this output is partnership, some key partners still feel that **involvement of private sector could be more strategic and outreach to wider business community** – especially on direct technical support that they can provide to innovators during the prototype development. Limits of this involvement include that the innovation was not specific into one industry. Microsoft, for example, was very keen to involve but there was no innovation relating to computer applications coming through.

**Innovators are key factors to the future use of innovations.** It was also cited that innovations were mostly developed from creative ideas, and were not problem based. The innovators are not those who are affected by disaster and has limited knowledge on DRR and emergency. This made some of the innovations had to pull out when innovators lack of interest of making it useable. Innovators need to have interest to pursue to make business out of their innovations, and they need to have entrepreneurship and market their project.

According to True Innovations – one of the business partner, **innovations need further adaptation** **to make it** **usable**. For example, there needs to also think how raw materials can be found to produce some innovations. For example, where to find lots of plastic bottles to build a boat during flood. ISAAC Box is also too large and heavy for transportation, therefore it might need some adaptation of materials. There needs to find alternative materials for Our Shelter’s Paper Box toys for children in temporary shelter paper, as paper box does not last long during flood or rain.

From the business point of view, **strategy to pursue the application of innovations need to be well defined to facilitate the business interest**. For example, the company prefers to take the innovation forward under more institutionalized collaboration rather than with a group of individuals. Incentive for this collaboration should also be clear to the executive– such as tax reduction or image branding – as investing into developing this type of products would not yield profit by itself.

**Government authorities buy-in** is another condition to define if the innovations can be taken forward. See an example of ISAAC case in the box below:

|  |
| --- |
| **Lessons learned from ISAAC BOX**  ISAAC Team produced an portable SOS device, which could be used to send signals to responsible agencies with a receiver asking for help which is useful when the mobile phone network is collapse during disaster time.  The Innovator said that after testing the prototype with users in a community, it was revised as per suggestion from the field. At the end of the project, the devise was made in the 4th version. However, it faced challenges in continuing for further development.  The system software of the box need to be approved base on the safety standard. The device also need permission from Office of the National Broadcasting and Telecommunication Commission, as it would capture the radio wave which usage monitored and controlled by the government. These would be a lengthy and complicating process if the product is not backed up by government authorities in charge of disaster response.  ISAAC box needs DDPM to be a receiver. The signal receiver shall be set up at a provincial office of Disaster Prevention and Mitigation so that it could take a follow up action after signal from the SOS box is received, for example, sending out emergency kits, food and water, coordinate donation received and ensure that they are sent to the most needed.  Although the business is willing to support to further develop this product, but it was seen that target of ISAAC Box is the government platform. It is not possible to sell the SOS box if there is no official receiver and follow up service.  The innovator felt that he has done his role in developing and revising the prototype. DDPM – as a key focal point agency for disaster prevention and response should be the one who taking this prototype into the system. DDPM has not move on this yet. |

### Table 9: Summary of Project’s targets and activities– Planned vs. Actual – Output 3

|  |  |  |
| --- | --- | --- |
| **Output 3:** Social innovations for disaster risk reduction developed and implemented with the involvement of public private partnership and the at risk communities | | |
| **Target** | **Activity** | **Implementation status & Achievement** |
| Targets for 2015   * Scope for calls for ideas identified | Activity 3.1 Organise a brainstorming event targeting relevant stakeholders to identify scope for calls for ideas | Completed.  List of potential private companies compiled. Meetings conducted with companies.  Concept of SIDRR campaign drafted and presented.  Private sectors hold reservation to support but CSOs interested. |
| * Ground work for PR/communication materials and campaigns for social innovation developed | Activity 3.2 Develop and prepare ground work for PR/communication materials and campaigns for social innovation | Completed.  Promotion materials developed and launched (VDO clips and posters, and website). |
| * Calls for ideas launched | Activity 3.3 Announce calls for ideas to define problems and their potential solutions and monitor submissions | Completed.  Press conference for SIDRR conducted focusing on public-private-people partnership.  5 companies and 14 GOs and NGOs expressed support in this campaign. Event covered in media (TV, papers and website)  Idea Booster Workshop held for participated innovators.  One to one campaign conducted in universities. |
| * At least 30 idea submissions received |  | 37 ideas submitted reflecting innovative ideas related to technology, communication, design. |
| Target for 2016   * At least 3 viable prototypes developed into projects/ ventures. | Activity 3.4 Identify and set up a team of resource persons, mentors (DRR experts, IT/engineers, relevant government officials, private sector actors) and potential partners (programmers, designers, and business developers) to help develop prototypes | Completed.  31 resource persons from 21 organisations identified. |
|  | Activity 3.5 Organize a social innovation camp in Bangkok, inviting partners and judges, to identify viable prototypes to be developed into projects/ventures | Completed.  10 qualifying teams were selected to join the camp, working with mentor.  10 teams presented ideas to judging panel, and 5 teams were selected to receive seed money.  Final pitching round was covered in 30 minute programme by Thai PBS |
|  | Activity 3.6 Develop crowd-funding campaign to raise public/private support and funding and to promote and feedback on the developed prototypes | Not completed.  As crowdsourcing fund is no required to see additional seed-funding, the activity was revised. |
| * Additional private sector partners and funding mobilised | Activity 3.7 Organise incubation labs with key partners to work out implementation steps and apply DRR innovations with at-risk communities | Completed  1st Incubation workshop conducted in Dec 15 to provide feedback for teams to improve prototypes.  2nd Incubation Workshop conducted in Feb 16) - to acquaint innovators with methodologies for prototype testing and develop a plan to test their innovation prototypes with targeted users. At this stage, 5 innovation teams were able to develop the first prototypes of their innovations for DRR and were given a guidance on how they should further test their prototypes to identify areas of further improvement/adjustment.  3rd Incubation Workshop conducted in March 16 - to build capacity of innovators in their presentation skills. The teams also reported back on the progress made on their first prototype testing and presented the second version of the prototypes based on the feedback receive during prototype testing period.  4th Incubation workshop (Mar 16) - allowed the teams to present about their DRR innovations and showcase how their innovation fits the need of at-risk communities to private sector partners of the project. Discussions were carried onward on potential partnership with and potential adoption of these DRR innovations by the private partners in the work on disaster risk reduction. Each team developed the road map for final prototype development. |
| * The process of prototyping and applying DRR innovations in at-risk communities documented and shared | Activity 3.8 Document prototyping process and pilot DRR innovation application | Completed.  In parallel with other activities, processes of SIDRR were documented in writing, photos and VDO. |

### Finding 13: On the achievement of outcome, 3 outputs of the project has laid the foundation for future mainstreaming of DRR in sectorial and provincial plans, policies and budgeting, although the tangible outcome of the project was not fully achieved due to shortage of budget.

#### Strategy

As previously reiterated, the project expected outcome was: *“Climate change adaptation and disaster risk reduction mainstreamed by key line ministries into their sectorial and provincial plans, policies and budget”*.

#### Achievement

As earlier discussed in the achievement of output 2 in Finding 11, tangible outputs on how climate change adaptation and disaster risk reduction are mainstreamed by key line ministries into their sectorial and provincial plans, policies and budget was not observed during this project life.

Pre-condition has been laid out for possible future action, include the following:

* Comprehensive multi-hazard risk and vulnerability assessments and maps are in place in two pilot provinces to inform/guide decision-making. Understanding and awareness on DRA has been increased among stakeholders after seeing the products.
* 20 departments and four agencies were sensitized on DRR, and the issue of DRR is known among agencies.
* The change was observed in key agencies responsible for DRR, such as from public speech and publication coming out of DDPM executive, as well as the use of materials on DRR produced in previous project.
* Dialog on DRR mainstreaming has been initiated by the project and DDPM in the past few years. It was also cited that the project period is too short to create tangible outputs on DRR mainstreaming in planning. Additional one more year would help the project to get to this goal.

### Finding 14: The project has a number of strengths that contributed to the success implementation which include: high relevance to the country’s situation and strategy, excellent technical supports, innovativeness of approaches and ability to partner with a wide range of stakeholders. Budget cut is considered by all stakeholders as most important weakness that prevent the project to achieve expected goal.

SWOT analysis is used to identify strengths and weaknesses of the project (as to respond to the evaluation question No 3). The SWOT analysis is presented in both: 1) Strengths and weaknesses which are internal to the components of the Project itself; and 2) Opportunities and threats which are external environment. SWOT analysis of the MADRiD Project is presented in the table 10.

### Table 10: SWOT Analysis of the MADRiD Project

|  |  |  |
| --- | --- | --- |
|  | **Internal to project & organization** | **External environment** |
| **Positive** | **Strengths**   * UNDP, as a neutral UN development agency, has a niche in its credibility to work and partner with diverse agencies. It has good relationship with government and is influential in sensitizing government agencies on development issues. * Project manager has high technical expertise on DRR and knowledgeable of DRR governance in Thailand. * The Project is well designed to ensure relevance of national situation and needs. * The project managed to draw expertise from key partners and mentors - getting the right mentors from various field: DRR, livelihood, design, IT, GIS. | **Opportunity**   * Previous good relationship with DDPM * Increased awareness among DDPM on DRR in the past years * The Project partners with governmental partners who are key agencies for DRR and development: NESDB and DDPM * Partner like Change Fusion has experience in working with flood before; ADPC has DRA expertise * More frequency and severity of disasters situation in both Chiang Rai and Songkhla make them see importance of these tools |
| **Negative** | **Weakness**   * The project was run through solo management style with not sufficient supporting team from UNDP * Budget shortage affecting achievement of outputs relating to DRR mainstreaming and application of risk information for DRM/ development planning. As a result, the Project was not able to sensitise government, especially at provincial level on how useful DRA is. * **Disaster Risk Assessment methodology** was highly technical and poses challenges in scaling without DRA experts * DRA was not designed to conduct at sub-district level therefore so that prevent Tambon to plan * Provincial partners were not well engaged in project activities therefore lack of ownership and ability to increase DRA capacity * Innovators understand DRR and disaster situation very little therefore innovation is more on idea based not problem based. | **Threat**   * Commitment at the provincial level and DDPM was seen as key to sustainability. DRR is not seen as high priority as response among government. Provincial offices priortise tools for real-time response to the disaster rather than DRA which is a tool for long-term planning. Therefore this could pose challenges in sustaining the efforts. * Provincial offices has limited capacity in taking DRA forward – lack political support, technical supports need to be provided by external experts. * Officials are not IT literacy which could pose challenges in maintaining the DRA web portal. * Provincial officials are not used to data & evidence based decision making. * Raw data available for DRA has some inconsistency. Most of them are in papers therefore this data needs time for processing. It was recommended that for DRA process, each agency changes format of data collection and/or add fields it would be useful for DRA. |

## 3.4 Impacts & Sustainability

This section aims to assess how the overall achievement at the end of the project create changes in the individual and institutional capacity for disaster risk reduction in Thailand. Impact of the MADRiD Project can be looked at in three dimensions 1) increased capacity of key stakeholders 2) strengthened disaster risk governance and 3) strengthened public – private partnerships and engagement of government and non-government agencies in disaster related issues in Thailand. This section also assess if the project leaves any legacy on DRR capacity and mechanism to the country, and if key partners could continue with the activities even after the project ends.

|  |
| --- |
| ***Evaluation Questions:*** |
| *Impact*   1. *What are the results/and impacts of the project on the capacity of key actors (DDPM, NESDB, Chiang Rai and Songkhla Province) on disaster risk management and integration of risk information in development planning?* 2. *What are impacts of the project on disaster risk governance?* 3. *Does the project contributes to strengthening partnerships and engagement of government and non-government agencies in disaster related issues in Thailand and how?*   *Sustainability*   1. *Has it initiated any pilot activities that can be replicated in the future?* 2. *Does and how the project is able to sustain its innovative activities, and whether or not further upscaling/replication took place?* |

### **Finding 15: The Project has an impact on increased awareness and capacity of key actors (DDPM, NESDB, Chiang Rai and** Songkhla Province) on disaster risk management different aspects.

Relevant government agencies have been sensitized on importance of DRA and DRR in this project. The project embeds activities related to capacity building workshops and trainings for all project outputs.

Interviewed key partners, including NESDB and DDPM, have reportedly **increased their understanding about disaster risk assessment and disaster risk reduction from participating in this project**.

DDPM has been in partnership with UNDP since 2012. Information materials on DRM developed during such partnership were used throughout the implementation of MADRiD Project, particularly in enhancing the understanding of existing and new stakeholders on DRM/DRR and equipping them with appropriate knowledge and skills for the implementation of MADRiD Project.

During MADRiD Project implementation, DDPM has gained confidence in providing technical supports and guidance to its provincial offices as well as strategic planning for scale up this Project in the future. It has also became clear to DDPM that the agency has become a focal point for DRR for Thailand, which was not felt before.

At provincial level increased capacity is not obvious. Some PDPM officials who work closely with the Project said that they have learnt more on DRA Process, while other agencies have not. One reason because the awareness on the importance of DRR is still low among provincial officials in comparison to disaster response. In addition, the process to conduct disaster risk assessment at the provincial level did not involve provincial authorities throughout the process. They only provided data from their respective line ministry to ADPC only, therefore their capacity in DRA itself has not been increased.

If implemented as originally planned, **the pilot activity on integration of risk information in development planning at both national and provincial level would have contributed a great deal to capacity on DRR at provincial level**.

**The Social Innovation for DRR campaign and incubation processes strengthened the capacities of CSOs and Social Enterprises** in fostering Social Innovation in Thailand. According to Change Fusion and Good Factory, the organization has learned a lot about the “incubation process” which was designed to groom innovator to test their ideas if they are suitable in real-life situation and take the prototype forward to the next step of marketing and becoming products.

### Finding 16: Project produced excellent information and advocacy materials to be used for scaling and advocacy for better disaster risk governance in the future. Risk assessment report and risk maps are highly appreciated by provincial officials, but wider dissemination need to be considered.

As strategized by the project design, all outputs produced by the project would contribute to increased capacity of disaster risk governance. Including

* Risk assessment report and maps, and disaster risk assessment web portal are available for future use in provincial planning in Chiang Rai and Songkhla. The publications - risk assessment report and risk maps are visual which is highly appreciated by relevant provincial officers. However, wider dissemination need to be considered.
* Risk assessment methodological guideline in Thai was produced and disseminated.
* Public Expenditure and Institutional Review (DRM-PEIR) report is available as a tool to advocate for changes in budget regarding DRR.

In addition, increased capacity of DDPM and provincial officials during participation in the project would have contributed to ongoing institutional capacity building of DRR management.

### Finding 17: Strengthened partnerships and engagement of government and non-government agencies in disaster related issues in Thailand is most outstanding impact created by this Project.

#### Strategy

As it was foreseen by the project that there is a need to incentivize private sector in Thailand to invest in long-term disaster and climate resilience intervention in Thailand by developing and implementing social innovation initiatives with the involvement of private sector. In the long run the Project envisaged through a stronger public-private partnership more funds will be raised to invest in long-term disaster reduction initiatives.

#### Achievement

UNDP managed to reach almost 100 partner organisations (DRR focal points of 20 national government agencies, 40 agencies as part of PWG from 2 provinces, and NGO and private sector partners working on innovation development during the implementation of this project.

Partnerships fostered throughout the project implementation allowed UNDP **to mainstream DRR/CCA with traditional and new partners and strengthened the network** between UN agency, government sector, private enterprises, CSOs, Media and Academic in the area of DRM/DRR.

The partnership and networking created by this project is considered new to DRR platform as it usually does not involve private sector. There are possibility to continue cooperation between innovators, business, and government developed from partnership in MADRiD Project. For example, Change Fusion continues to dialog with ADPC in develop a project related to the use of open data on disaster. True Innovations has a plan to continue to support two innovations derived from this project.

### Finding 18: The Project has been designed with consideration of conditions for sustainability and produced some key sustainability factors to ensure that its activities could be replicated in the future.

**Project achievements are regarded sustainable** as the majority of the Project Outputs supplement the implementation of the National Disaster Prevention and Mitigation Plan B.E. 2558 and National Security Strategy 2012-2017 and helped informed the development of new National Economic and Social Development Plan (2016-2019) and Thailand's 20-Year National Strategy.

#### Key sustainability factors derived from the Output 1 are:

* Risk assessment report and maps are available for future use in provincial planning in Chiang Rai and Songkhla.
* Risk assessment methodological guideline in Thai was produced and disseminated.
* DDPM held a series of discussion with UNDP and GIZ-GFDRM on potential future collaboration to scale up disaster risk assessment activities with other provinces in Thailand based on the guidance provided in this DRA Guideline and lesson learned from the implementation of MADRiD Project.
* DDPM plans to replicate disaster risk assessment in 5 provinces in Chaophraya in Thailand basin under its available technical team.
* Possible challenges in replication of disaster risk assessment in the future is that DRA methodology as piloted in the project is highly technical. Therefore additional technical support might be needed. Supports from local academic institutions is a possible option when ADPC is not around. Training package could be developed to provide technical knowhow to these local academic institutes.

#### Key sustainability factors derived from the Output 2 are:

* Public Expenditure and Institutional Review (DRM-PEIR) was conducted and report is available as a tool to advocate for changes in budget regarding DRR.
* The web portal was set up and it would be updated regularly by provincial offices (1-2 years) the server would be moved to provincial office. The web portal has potential to continue in Chaing Rai province because it has a server and technicians who can manage data in GIS programme.
* DDPM will follow-up with the provinces on the transition of web hosting.

#### Key sustainability factors derived from the Output 3 are:

* Innovations are put in the open source for public use.
* Business partner - True Innovations – has plan to continue to develop the innovations with two teams: ISAAC and Our Shelters to further adapt the product design. The company has planned a pilot project in Mae Sot in collaboration with Ministry of Natural Resources and Environment aiming at monitoring the cause of flood, and these two innovations would be tested in its said project.
* **The Social Innovation for DRR campaign and incubation processes** taken in the MADRiD Project was also adopted as a model to be replicated by UNDP’s Thailand’s Social Innovation for Development which is expected to be launched in early 2017. UNDP also is now looking into potential methodology to collect risk information from community level through commercial-led surveys.

As it was noted earlier that key success factor for future use of the innovation is that the government is willing to take on the innovations as they are the legitimate DRR authorities.

## 3.5 Innovativeness

This section looks at the innovativeness and catalytic aspect of this project.

|  |
| --- |
| ***Evaluation Questions:*** |
| 1. *Is the project innovative and catalytic, and if so, in what ways?* 2. *Has it served to push the frontier of interest of the governments and other stakeholders on disaster risk assessment, disaster risk reduction, and innovation for disaster risk management in the future?* |

### Finding 19: Disaster risk assessment, DRM-PEIR and innovations for DRR were reported to be newly introduced in Thailand as pilot project with some legacy for upscale.

Overall, all outputs are innovative for that they were newly introduced to Thailand’s DRR communities. **Disaster risk assessment has not been conducted in Thailand both at national and provincial level** with thorough, full-scale and scientific methods, as similar to DRM-PEIR.

On Disaster Risk Assessment, a case study of mainstreaming DRA into development planning would be considered very innovative for ADPC if it had happened. DRA web portal was considered to be another tool with new technology.

**The process for developing innovation was conducted in an approach that has not been done before.** The project has been trying to test ideas through incubation process for ensuring that they can be used in the real situation. This would address challenges always faced by innovation development projects that focus on ideas and prototypes but failed to continue to the next step.

When most innovation development programmes finished at competition and awarding best ideas, this project pursue to the next step to ensure that the innovation can be used in real disaster situation.

* Incubation workshops and coaching was designed requiring participation of innovators with ideas coming through.
* 10 from 20 of those with good ideas on paper were selected to join a 48 hour camp to develop the prototype.
* From this camp, 5 teams were selected to develop the mock up into real products and test them during 4 incubation camps.
* Mentors were identified to support each team, and they had a chance to test their products in the community with users.

All innovators felt that this process is very helpful and new to them.

Another aspect of innovativeness of this project is the model **“Public-private partnership**” that involve wide range of partners from different stakeholders which have not had seen in DRR community.

## 3.6 Cross-cutting issues

This section looks at some cross-cutting concerns that UNDP emphasizes in implementing all of its projects - which is mainly gender issue.

|  |
| --- |
| ***Evaluation Questions:*** |
| 1. *Did the project provide due emphasis to gender in the context of initiatives it supported?* |

### Finding 20: The Project adhered to gender sensitive principle as it does not discriminate women’s participation in project activities and ensured that gender vulnerability was considered during DRA. Female innovators could be further encouraged as less women are interested in this field of technology.

#### Strategy

According to Project Document, to strengthen the integration of gender dimension in disaster risk reduction and climate change adaptation interventions, the project would not only ***ensure participation of risk assessment exercises*** are used to identify risk and vulnerability of women to climate change and disaster risk, but also to ***involve women in such exercises. Gender concerns should also be mainstreamed in pilot sectors at provincial level*** by ensuring that project intervention increases women’s level of resilience rather than increasing their level of vulnerability to climate change and disaster risk. This also includes ***participation of women in social innovation for DRR and CCA*** by ensuring one of the criteria for selecting a robust social innovation project is accessibility and ease of use of new innovations by women.

#### Achievement

The Project was implemented with consideration of gender issue as the following:

* **Ensure gender concerns and women’s participation in risk assessment exercises:** For disaster risk assessment, data collected for assessment is sex disaggregated. Gender based vulnerability was considered.
* **Participation of women in social innovation for DRR and CCA**: For the process of developing innovations for disaster risk reduction, consideration on gender balance among innovators was taken, and both male and female were encourage to submit their applications, although criteria and quotas were not specify. As the project’s innovation’s scheme is open scheme and not limited “innovations” to “technology” only, the project included a team of female members among the four. Female innovators could be further promoted as less women are interested in this field of technology in any innovation related projects. Mentors for innovators during prototype refinement and testing were both male and female.

The project did not have specific strategy to ensure women’s participation in its management and activities. Partners did not view that women discrimination is a concern in Thailand especially among governmental officials and young innovators. In DRR field, as stated by an interviewed partner, there are more female than male officials in the Chiang Rai PDPM Office. In DDPM, female staff members are executives and in emergency response team.

**Gender concerns has already been embedded in Thailand’s DRR strategy**. DDPM has both training courses and handbooks on gender dimension in DRR. A training course on gender based DRM was compulsory for DDPM executives.

# 4. Lessons learned

This section looks at the lessons learned (both positive and negative) of the project. As this project piloted new approaches/tools in the implementation, lessons from piloting these tools are especially of interest.

|  |
| --- |
| ***Evaluation Questions:*** |
| 1. *What are the lessons learned (both positive and negative) of the project especially in the following elements?*    * *Tools/instruments used to achieve the expected results, especially which have been used for capacity building activities*    * *The innovative and catalytic aspects of the project* |

### On Disaster Risk Assessment

|  |  |
| --- | --- |
| **Lesson No.** | **Thematic lessons** |
| Disaster risk assessment | |
| ***Lesson learned # 1*** | * **Active participation of relevant provincial officials in DRA process is key to increase provincial capacity, raise awareness on importance of DRR and increase ownership of the product**.   The Project did not actively involve provincial partners therefore it was seen “UNDP study and we gave them all of our information” |
| ***Lesson learned # 2*** | * **Technical level of Disaster Risk Assessment need to be taken in to consideration when up scaling.**   As cited by ADPC, the DRA was conducted in a full-scale manner to ensure that the results of the assessment is accurate – which made the process highly technical. Concerns among key partners were that it would not be possible for DDPM and relevant provincial offices to replicate this model by themselves.  Options then were: 1) to simplify the methodology or 2) to involve local academic institute in to the process so that they could be key technical support for provinces when ADPC is not around. Availability of budget and other resources may need to be considered. Training package on DRA would need to be rolled out.   |  | | --- | | ***Challenging in simplifying DRA: comments from ADPC***  *There are many tools to conduct disaster risk assessment. The tool used by ADPC for this project is a standardized one. The DRA handbook that was produced aims to provide thorough steps of the standardized DRA as ADPC did.*  *This method might be too complicated for those without scientific and engineer background. The reason for ADPC to conduct highly technical DRA was because we wanted the outputs that can be quantified in terms of damages which is helpful for setting priorities.*  *Simplifying DRA method can have a drawback. If the data is too simplified the use of data could not be maximized. Therefore different versions of DRA handbook should be produced for different target populations: specialists, practitioners and community members.* | |
| ***Lesson learned # 3*** | * **The need for integrated approach in working in DRR**   The process of DRA reflects the need for integrated data base at provincial level where all relevant agencies need to pull in data into one central database. This has been weakness in Thailand even in other areas of work that sharing information has always been challenging.  DRA Process also shows that it is not possible for one single agency – i.e. PDPM to address disaster response and preparedness as a stand-alone agency while impacts of disaster fall on different areas of livelihood. |
| ***Lesson learned # 4*** | * **Disaster risk assessment and its use in planning VS. Early warning.**   In principle, result of disaster risk assessment is useful to predict chances of disaster to happen in different areas. Therefore policy makers and planners can develop a preparedness and prevention plan accordingly. Results and maps derived from DRA is not real-time monitoring system or an early warning system to warn people if the disaster will happen.  From the interviews, some provincial partners did not see much of the use of DRA as it did not provide a real-time and up to date situation of hazards to enable them to warn people and prepare for response. Therefore, the use of DRA needs to be explained at early stage. |

### On DRR Mainstreaming

|  |  |
| --- | --- |
| **Lesson No.** | **Thematic lessons** |
| DRM-PEIR | |
| ***Lesson learned # 1*** | * **A practical example of DRR mainstreaming will be a useful advocacy tool for further replication.**   It was agree that the important component is that DRA result is taken forward to pilot mainstreaming in any specific sector which was not completed due to the budget cut.  Originally, provincial team would be encouraged to use DRA findings and DRM-PEIR in provincial development planning. The PWGs in Chiang Rai reviewed the risk profiles and agreed to select health sector as the pilot sector for mainstreaming activities. However, the actual pilot process of mainstreaming risk information into health sector could not take place.  As mainstreaming of DRR into planning and budgeting is a total new process, the documentation of process and examples would help greatly to raise awareness and understanding of the provincial partners. |
| ***Lesson learned # 2*** | * **Good and quantitative data is more powerful for advocacy on budget.**   Although the DRM-PEIR Report has good information, but its recommendations are still too broad. To be effectively used for planning and budgeting advocacy, it was suggested that the DRM PEIR can go deeper to *conduct cost effectiveness analysis of budget used on DRR and response to show that how much more expensive it is to restore and recovery in comparison to spending on DRR*. |

### On Innovations for Disaster Risk Reduction

|  |  |
| --- | --- |
| **Lesson No.** | **Thematic lessons** |
| Innovations for Disaster Risk Reduction | |
| ***Lesson learned # 1*** | * **Process of incubating prototypes into innovation has proved to be useful.**   A number of useful lessons were drawn out of experience in piloting the process to incubating the prototype. Some of the key elements needed to add into the process are:   * The process that allow prototypes to be test for functionability (functionality or function ability, functional ability) of the product is very useful. * **A problem insight session** to help innovators to brainstorm ideas should be conducted at the beginning of process so that innovators understand disaster situation and develop their ideas for innovation based on problem. * Capacity building sessions shall be conducted for innovators with **focus on marketing and entrepreneurship skills** to strengthen their ability to develop business model to pitch for business interest |
| ***Lesson learned # 2*** | * **Innovator’s interest is also factor for the successful use of products**   During project implementation, it was learnt that the goal of innovators are also key factor for success. Innovators shall aim at pursuing their products to be used, they need to have entrepreneurship and marketing skills. There were cases that innovators are interested only in trying out with their ideas to win an award. |
| ***Lesson learned # 3*** | * **Partnership with private sector**   Some lessons are learned from this project was that UNDP needs to find the niche of business partners on how they can effectively involve in the process.   * Disaster risk reduction is not yet an interest of the CSR Policy of most companies therefore strategy to involve private sector shall be well identified. * Contribution of private sectors can be from their expertise not only in cash. |
| ***Lesson learned # 4*** | * **Innovations for DRR needs involvement and leadership from key government player**   It was also learnt that innovations could not be taken forward if it is not approved and involved by government authorities in charge of DRM, although the innovation is supported by private sectors. (See details in Finding 13 under Effectiveness). |

# 5. Recommendations

|  |
| --- |
| ***Evaluation Questions:*** |
| 1. *Based on lessons learned, what are the possibilities for UNDP future intervention in disaster risk management and disaster risk governance in Thailand?* |

Overall, the Project team and management was successful in delivering outputs and outcomes as expected – with the exception of part of Output 1 and Output & 2 due to budget cut during the implementation period. Relevance and efficiency of the project was also considered high. While the Output 3 contributed greatly to the innovative aspect of the disaster risk reduction tools and collaboration with private sector. Mainstreaming of the DRA and DRM-PEIR into national and provincial planning was highly recommended by all parties as the next step – so that this could complete the expected outcomes that was not delivered during this Project period due to budget cut. The following recommendations for UNDP’s DRR Programme and government’s future efforts are based on the evaluator's analysis of all the information emerging from evaluation findings, as well as directly from interviews and focus group discussions with the stakeholders. Recommendations also take into account of their recommendations on the project's next step towards the future.

### Overall

**1) Continued partnership with and building capacity of DRR Key players in Thailand**

**For UNDP**

At national policy level, UNDP should continue to support capacity building for and partnership with DRR for Thailand’s key players i.e. DDPM and NESDB as well as DRR focal points for each governmental agencies through:

* Conducting pilot projects relevant to national policies and launching updated information materials.
* Creating dialogs to raise awareness of other government sectors on their relevance of DRR by organizing knowledge and experience sharing platforms among various partners; and sharing knowledge publications as well as constantly update the publication content.

**For RTG**

* It was recommended by UNDP for the RTG to pursue implementation of DRR mainstreaming activities in collaboration with UNDP on a cost-sharing basis.

### On Disaster Risk Assessment

**2) Replication of Climate/Disaster Risk Assessment**

**For UNDP**

* Develop capacity building/advocacy programmes to enhance knowledge and skills of relevant stakeholders at all levels
* Further encourage participation and ownership of stakeholders, through formation of working group
* Develop guiding tools for integrated planning of DRR and CCA

**For RTG**

* Set up the national coordination mechanism for replication of risk assessments in other provinces and at national level
* Pilot provinces should be further supported to expand its knowledge to other nearby provinces and set up an education center for study trips

**For UNDP & RTG**

* **Improve and reconsider the process of DRA** especially on the following issues:
  + Addressing technical level of DRA process to match with capacity of provincial and local partners, or identifying specialists to closely support during the process.
  + Technical support should be provided both leading the DRA process as well as building capacity of provincial team
  + Improve the baseline data for future climate and Disaster Risk assessments (Data collection, details, format, compatibility, etc.), and improve data sharing across agencies in the various data format (including GIS-based data) for appropriate decision-making and resource allocation
  + Enhance GIS skills of relevant officials in charge of risk assessments

**3) Application of risk information for DRM / development planning**

**For UNDP and RTG**

* Advocate on the use of risk information for effective decision making with national & provincial governments
* Advocate on the use of Web Portal as an effective tool for risk information sharing and application
* Transfer the web portal hosting and administration from ADPC to provincial governments for sustainability

### On mainstreaming DRR/CCA in development

**4) The Project should find ways to continue to implement Component 2, so that the expected outcome is yielded and lessons could be learnt on DRR mainstreaming for further upscale.**

**For UNDP**

* Refine recommendations from DRM-PEIR to advocate for changes in budgeting DRR
* Share experience of other countries on DRR mainstreaming with key stakeholders in Thailand;

**For RTG**

* Work with selected sectors to pilot the use of risk information in sectoral development planning and implementation
* Sensitize budgeting system using the results of DRM-PEIR to bridge the gaps in policy implementation

### On Social Innovation for Disaster Risk Reduction

**For UNDP**

**5) Strategic thinking on the use of innovation**

* UNDP need to think strategically on who would use or scale the innovation before finding strategy to promote the use of innovations.

**6) Partnership with private sector:**

* UNDP should have clear strategy on how it would promote innovations among private sectors – which area to focus (i.e. capacity building for personnel or innovations), and what are incentive for business.
* Strengthen partnerships with private sector especially in scaling up tested prototypes
* Tap interested new partners in other thematic areas in developing innovation.

**7) Database and sharing experiences on innovations for DRR**

* Support the development of database of disaster related innovations and compile all innovations into the database
* Promote ideas and innovations in other countries
* Lessons learned from Social innovation shall be embedded in the social innovation for development center to be established by UNDP. UNDP can help running process, and ensure that innovation can feed back social problem in reality.

# Annexes:

* Annex 1: Project Evaluation Workplan
* Annex 2: List of materials consulted
* Annex 3: List of persons consulted

## Annex 1: Project Evaluation Workplan

**Duration of the Work: 12 December 2016 - 15 February 2017**

| **Phases / Specific activities / Deliverables** | **Dates** | **No. of days** |
| --- | --- | --- |
| **1. Inception Phase** | | |
| Preliminary meeting with UNDP on focus and scope of work | 20 Dec 16 | 1 |
| Conduct desk review | 21 Dec 16 – 15 Jan 17 | 3 |
| Preparation and submission of Evaluation Framework including Methodology/Tools | 2 Jan 17 | 2 |
| **2. Data Gathering Phase** | | |
| Interview with key stakeholders | 1st – 3rd week of Jan 17 | 6 |
| Field trip to Chiang Rai and Songkhla | 2nd week of Jan 17 | 2 |
| **3. Reporting Phase** | | |
| Data analysis and writing the 1st draft report | 4th week of Jan 17 | 5 |
| Submission of first draft report | 3 Feb 17 | - |
| Comments received on first draft report from UNDP | By 10 Feb 17 | - |
| Finalise the draft evaluation report based on comments | 11 – 14 Feb 17 | 1 |
| Submission of the final report | 15 Feb 17 |  |
| **Total day** |  | **20** |

## Annex 2: List of materials consulted

1. UNDP Thailand Project Document - Mainstreaming Climate Change Adaption and Disaster Risk Reduction in Development Planning in Thailand (MADRiD Project)
2. UNDP Thailand Country Office. Annual Report – Mainstreaming Climate Change Adaption and Disaster Risk Reduction in Development Planning in Thailand (January – December 2015)

UNDP. UNDP and the World Conference for Disaster Risk Reduction. Online at: <http://reliefweb.int/sites/reliefweb.int/files/resources/UNDP_at_the_WCDRR_Introduction.pdf>

1. UNDP. Minutes of Project Executive Group (PEG) Project on Mainstreaming Climate Change Adaptation and Disaster Risk Reduction in Development Planning in Thailand (MADRiD), Friday, 9 December 2016 at 13:30 -16:30 hrs. United Nations Building, Bangkok

## Annex 3: List of persons consulted

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Name** | **Position & organisation** | **Location** | **Date of interview** |
|  | Ms. Charurin Pholhinkong | DRR Coordinator, Save the Children | Bangkok | 27 Jan 17 |
|  | Ms. Chutika Udomsinn | Founder, Director, Good Factory | Bangkok | 26 Jan 17 |
|  | Mr. Veerasak Pongtanyavichai | Assistant Director, True Innovation Center | Bangkok | 26 Jan 17 |
|  | Mr. Sankaworn Sattayamongkol | BD Manager, True Lab, Innovation Center | Bangkok | 26 Jan 17 |
|  | Ms. Rosalind Chartleka | Policy and Plan bureau, Ministry of Defense | Bangkok | 25 Jan 17 |
|  | Mr. Sittikorn Nualrod | Innovator, Team ISAC | Bangkok | 21 Jan 17 |
|  | Ms.Sivaporn Kamkaew | Innovator, Our Boxes | Bangkok | 20 Jan 17 |
|  | Ms. Chomphoonut Chuangchote | NESDB | Bangkok | 18 Jan 17 |
|  | Ms. Chatchadaporn Boonpeeranat | Policy and Plan Analysis Specialist DDPM | Bangkok | 18 Jan 17 |
|  | Ms.Chatraporn Kaewyont | Disaster Prevention and Mitigation Policy and Plan Division, DDPM | Bangkok | 18 Jan 17 |
|  | Ms. Duangnapa Uttamangkapong | Policy and Plan Analysis Officer, DDPM | Bangkok | 18 Jan 17 |
|  | Ms. Wiphavee Sriprapai | Research and International Cooperation Bureau, DDPM | Bangkok | 18 Jan 17 |
|  | Mr.Bharkbhum Bhochanukul | Plan and Policy Analyst, Songkhla PDPM | Songkhla | 13 Jan 17 |
|  | Ms. Chuanpit Ngernchalad | Meteorologist (Expert Level), South Meteorological Center (East Coast) | Songkhla | 13 Jan 17 |
|  | Mr. Sawang Momdee | Chief, Chiang Rai PDPM | Chiang Rai | 12 Jan 17 |
|  | Mr. Nukprach Chaiyanont | Director, Strategy and Information for Province Development Group, Chiang Rai Governor’s Office | Chiang Rai | 12 Jan 17 |
|  | Dr. Peeranan Towashiraporn | Asian Disaster Preparedness Center (ADPC) | Bangkok | 11 Jan 17 |
|  | Mr. Klaikong Vaidhyakarn | Deputy Director, Change Fusion | Bangkok | 11 Jan 17 |
|  | Mr. Janevit Wisojsongkram | Communication and Fundraising Officer, Foundation for Older Persons' Development, PEG | Krabi | 9 Jan 17 |
|  | Ms. Mutarika (Mai) Pruksapong | Project Manager - MADRiD Project, UNDP | Bangkok | 4 Jan 17 |

1. UNISDR. Sendai Framework for Disaster Risk Reduction 2015-2030 (Online) at: <http://www.unisdr.org/we/inform/publications/43291> [↑](#footnote-ref-1)
2. UNDP. UNDP announces ‘5-10-50’ – new global programme in support of disaster resilience (online at: <http://www.undp.org/content/undp/en/home/presscenter/pressreleases/2015/03/17/undp-announces-5-10-50-new-global-programme-in-support-of-disaster-resilience.html> [↑](#footnote-ref-2)
3. UNDP. UNDP and the World Conference for Disaster Risk Reduction. Online at: <http://reliefweb.int/sites/reliefweb.int/files/resources/UNDP_at_the_WCDRR_Introduction.pdf> [↑](#footnote-ref-3)
4. The strategy 1 disaster risk reduction focuses on systematic reducing possible impacts from disaster by analyzing and managing risk factors to reduce hazards and risks, increase capacity of individuals, communities, and society as a whole, as well as prevent damages that could happen in the future. [↑](#footnote-ref-4)
5. According to the Project document, hydrological events and droughts have a particularly severe impact on Thailand on re-current basis. Thailand is the 7th most flood-prone country in the world. The social, economic and environmental damage and losses associated to occurrences of disasters is on an increase in Thailand. [↑](#footnote-ref-5)
6. A regional CSO based in Bangkok has expertise and a long history in conducting disaster risk assessment and mainstreaming DRR into development planning among different countries in Asia and Pacific Region [↑](#footnote-ref-6)
7. A Bangkok based social enterprise that has worked to foster social innovation in Thailand since 2001 [↑](#footnote-ref-7)