



TERMINAL EVALUATION FINAL REPORT

Scaling-up Risk Transfer Mechanisms for Climate Vulnerable
Agriculture-based Communities in Mindanao
“Weather Index-Based Insurance (WIBI) Mindanao Project”
Regions X and XI, Philippines
(November 2014 to December 2017)

UNDP-GEF MEDIUM-SIZE PROJECT

UNDP PIMS ID: 5076

GEF Project ID: 87940

GEF Strategic Program: Climate Change Adaptation

Implementing Partner

Philippine Crop Insurance Corporation (PCIC)

Responsible Parties

Agricultural Credit Policy Council (ACPC)

Agricultural Guarantee Fund Pool (AGFP)

Agricultural Training Institute (ATI)

Climate Change Commission (CCC)

Department of Agriculture (RFO X & XI)

Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)

Philippine Rice Research Institute (PhilRice)

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LIST OF ACRONYMS

ACPC	Agricultural Credit Policy Council
AEW	Agricultural Extension Worker
AGFP	Agricultural Guarantee Fund Pool
APPELL	Awareness and Preparedness for Emergencies at the Local Level
ARBY	Area-Based Yield Index Insurance
ATI	Agricultural Training Institute
ATM	Automatic Teller Machine
AWS	Automatic Weather Station
BSWM	Bureau of Soils and Water Management
CAO	City Agricultural Office
CARD-MRI	Center for Agricultural & Rural Development-Mutually Reinforcing Institutions
CCA	Climate Change Adaptation
CCAP	Climate Change Adaptation Project
CCC	Climate Change Commission
CMU	Central Mindanao University
CSCAND	Collective Strengthening of Community Awareness on Natural Disasters
DA	Department of Agriculture
DA-SWCCO	Department of Agriculture – Systems-Wide Climate Change Office
DBM	Department of Budget and Management
DRR	Disaster Risk Reduction
NDRRMC	National Disaster Risk Reduction Management Council
dCWR	daily Crop Water Requirement
eCFS	Enhanced Climate Field School
FSP	Financial Service Provider
GAP	Good Agricultural Practices
GEF	Global Environment Facility
IA	Irrigators' Association
IC	Insurance Commission
IFP	Integrated Financial Package
ILO	International Labour Organization
IRA	Internal Revenue Allotment
LBP	Land Bank of the Philippines
LGU	Local Government Unit
MAO	Municipal Agricultural Office
M & E	Monitoring & Evaluation
MIPSS	Microinsurance Programme for Social Security
NCCAP	National Climate Change Action Plan
NIA	National Irrigation Administration
PAR	Portfolio-at-Risk
PB	Project Board
PCIC	Philippine Crop Insurance Corporations
PCW	Philippine Commission on Women
PDP	Philippine Development Plan
PET	Potential Evapotranspiration
PhilCCAP	Philippines Climate Change Adaptation Project
PAGASA	Philippine Atmospheric Geophysical and Astronomical Services Administration
PhilRice	Philippine Rice Research Institute
PMO	Project Management Office
PSA	Philippine Statistics Authority
PUMIS	PAGASA Unified Meteorological Information System
RCM	Rice Crop Manager
RIICE	Remote Sensing-Based Information and Insurance for Crops in Emerging Economies
RMF	Risk Mitigation Fund
RSBSA	Registry System on Basic Sectors in Agriculture
SCCF	Special Climate Change Fund
SUC	State Universities and Colleges
TOT	Training of Trainers
UNDP	United Nations Development Programme
UNDAF	United Nations Development Assistance Framework
UNEG	United Nations Evaluation Group
WIBI	Weather Index-Based Insurance
WMO	World Meteorological Organization of the United Nations
WMP	WIBI Mindanao Project
WTP	Willingness-to-Pay

EXECUTIVE SUMMARY

In compliance with UNDP and GEF M&E policies and procedures, all full- and medium- sized UNDP supported GEF-financed projects are required to undergo a terminal evaluation upon completion of implementation, or within 6 months prior to its termination. The UNDP evaluation policy specifically in part states:

“Project evaluations assess the efficiency and effectiveness of a project in achieving its intended results. They also assess the relevance and sustainability of outputs as contributions to medium-term and longer-term outcomes. Project evaluation can be invaluable for managing for results, and serves to reinforce accountability.

Additionally, project evaluation provides a basis for the evaluation of outcomes and programmes, as well as for strategic and programmatic evaluations and Assessment of Development Results (ADRs), and for distilling lessons from experience for learning and sharing knowledge. In UNDP, project evaluations are mandatory when required by a partnership protocol, such as with the Global Environment Facility.”

Further, this terminal evaluation includes ratings on the WIBI Project’s relevance, effectiveness, efficiency, implementation of the M & E Plan, and on the likelihood of sustainability of resultant outputs and outcomes.

The reference guidebook for this evaluation is UNDP *Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects (2012)*; and, the Terms of Reference, attached as Annex 1.

The summary reference information for the WIBI Mindanao Project¹ is presented in the table below:

Program Period	3 years	Total Resources Required	US\$ 17,300,000
Atlas Award ID	00076666	Total Allocated Resources	US\$ 17,300,000
UNDP Project ID	87940	• SCCF	US\$ 1,050,000
PIMS #	5076	• Co-financing ○ Government ○ UNDP	
Start Date	November 27, 2014		US\$ 14,650,000
End Date	December 31, 2017		US\$ 1,600,000
Management Arrangements	NIM	Start Date	11-27-2014
		End Date	12-31-2017
PAC Meeting Date	February 24, 2014		

Brief Description of the Project²

The Philippines is one of the most disaster prone countries in the region and the world. The 2009 Typhoon Ondoy (international name: Ketsana) caused US\$4.3 billion in damages, of which poor households bore 90% of the losses. Typhoon Pablo (Bopha) in 2012 recorded the highest number of fatalities with 1,500 deaths, and displaced a million people. In 2013, super typhoon Yolanda (Haiyan) killed more than 6,000 people with 1,000 people missing, affected 16 million people including 6 million children, and thousands of homes destroyed. These disasters exemplify how the poor are disproportionately affected, and reverses the development gains over a long period. Future projections on climate change also point to an increasing intensity and/or frequency of hydro-meteorological disasters and increasing weather variability, and will impose additional strains on the lives and livelihoods of the country’s 25.6 million people who live below the poverty line.

The WIBI Mindanao Project was designed to address these two types of climate risks: increasing variability in climate, and intensifying/increasing extreme climate change-induced natural disasters. In particular, weather index-based insurance (WIBI) which has been pilot-tested in the last four years will be expanded to 2,000 households in Regions X and XI in Mindanao. The concept of Disaster Risk Management will be

¹ Project Document: Scaling-up Risk Transfer Mechanisms for Climate Vulnerable Agriculture-based Communities in Mindanao

² Terms of Reference: Terminal Evaluation, WIBI Mindanao Project

introduced, disseminated, and strengthened in at least 30 barangays (covering approximately 85,000 individuals) where WIBI is to be delivered. This synchronized manner of delivery, as designed, will increase the adaptive value of such options and reduce vulnerability of smallholder farmers.

The Island of Mindanao was chosen as target sites due to several considerations, among which were: it is considered the food basket of the country and this bears on food security; food production is characterized by small-scale operations; poverty is more prevalent here than in many parts of the country – thus, making agriculture exceptionally vulnerable to future changes in climate. Regions X and XI offered the opportunity to be closely aligned with an ongoing UNDP baseline project.

The objective of the project is *“Poverty reduction by strengthening the resilience of vulnerable agriculture based rural communities in Mindanao through climate risk transfer mechanisms and productivity enhancement measures”*. There were three (3) specific outcomes:

1. Regulatory and fiscal incentive structures adjusted to stimulate private sector engagement in climate risk reduction and transfer for agriculture-based rural households;
2. Weather index-based Integrated Financial Package customized and applied to strengthen climate resilience in the agriculture sector in Mindanao; and,
3. Farmers and producers organizations and other local stakeholders able to analyze climate risk, and develop and implement adaptation practices to enhance productivity in agriculture and off-farm enterprises in support of a sustainable, diversified and market-driven economic base.

Summary of Conclusions, Recommendations and Lessons Learned

Conclusions

The pilot nature of the WIBI Mindanao Project focused on the Cities of Malaybalay and Valencia in the Province of Bukidnon, Region X. In Region XI, the project operated in the Cities of Davao, Digos, and Tagum; the Municipalities of Bansalan, Hagonoy, Matanao (Davao del Sur Province), Asuncion, New Corella, Sto. Tomas (Davao del Norte); and, the Districts of Calinan, Tugbok, Buhangin, and Bayanihan (Davao City).

The Project has indeed played a critical role in boosting the economic potential of WIBI as a risk transfer mechanism through the engagement of FSPs, LGUs and other responsible parties and key stakeholders, and the smallholder farmer-beneficiaries. The Project has contributed in initially raising awareness of communities on increasing climate variability and intensifying/increasing extreme climate change-induced natural disasters, and made headways in the policy front with the inclusion of bills in the legislative and in the executive branches. For the most part, all these was a consequence of the successful collaboration and contributions among various government agencies and offices and the private sector that endeavored to achieve Project objectives and results in an effective and efficient manner.

The Project has taken the initiative to engage PCIC as the implementing partner and other responsible parties composed of government agencies to successfully collaborate in addressing the planned activities towards the achievement of the intended outcomes and attainment of the Project objective.

Relevance of the Project was sustained all throughout the implementation phase, maintaining focus on the long-term solution and the identified barriers that were being addressed by the Project outcomes, outputs and activities.

WIBI, to a large extent, has proven its validity in the face of continuing weather variability and changing intensities have provided better evidence in addressing basis risks.

The indicative amounts farmers are willing to pay WIBI premiums could begin a process of reducing subsidies over time. Promoting WIBI among the insurance and reinsurance sector have began and interest could have been further boosted had an integrated financial package been introduced.

The WIBI impact assessment study, although done along certain limitations, has concluded that the project has the potential to become an effective mechanism for delivering assistance to farmers to enable them to break free from poverty trap.

Finally, the Project successfully combined the elements of climate risk-transfer mechanism and adaptation investments to promote the WIBI industry that can be sustained with the continuing collaboration among PCIC and the implementing partners during the planned roll out. It has demonstrated its effectiveness as a mechanism for delivering assistance through payouts to poor and vulnerable farmers to enable them to break free from poverty trap, while supporting farmers on resilient farming methods.

Recommendations

1. There were several enhancements that could have been considered for improving the achievement of the Project results. The identification of barriers especially on the lack of credit access and the debt absorptive capacity of smallholder farmer considering that the WIBI product was intended to be bundled into existing credit programs. Through this, the inclusion of local government units for providing agricultural credit to farmers could have been considered too.
2. The formulation of indicators, e.g. damage rates that proved difficult, either on the availability of secondary data or the generation of new data would require huge resources. Still on indicators, the use of a similar indicator for end-of-Project target, i.e. *“At least 2,000 families in target villages are covered by WIBI”* for both Project objective and outcome 2. The latter’s indicator that corresponded to a *customized financial package* such as the number of farmers able to avail of the package would have been more relevant and appropriate.
3. Third, the numerous assessment studies that the Project undertook underscored the need to consider several of the findings, conclusions and recommendations during the roll out of a similar project on a larger scale. On the impact assessment made, the level of understanding of the risk transfer mechanism and climate resiliency remained low among farmers highlighted the critical importance of the production and distribution print materials in the local dialect to improve understanding, and should again be included as an important activity component.

The same is true for other assessment studies whose recommendations, upon in-depth evaluation, strongly suggested additional concluding activities and/or issuance of new/revised guidelines for up-scaling WIBI. Some of these suggestions from these assessment studies were worth considering, namely:

- Portfolio assessment on FSPs - provision of regulatory, fiscal and financial incentives for FSPs to increase their level of participation considering that loan portfolio performance of WIBI farmer-enrollees were generally better than non-enrollees;
- Index development and setting –expand institutional arrangements with identified potential agencies especially with the academe;
- Expansion and establish conclusive correlation between climate parameters and yield for the 4 initial crops (*banana, cacao, coconut, and sugarcane*) and for new identified additional crops;
- Reinsurance – reconsider PCIC mandate and reassert its relevance, build up the market, modify market to facilitate product distribution, establish a ‘catastrophe pool’, make historical weather data available and affordable, promote parametric agricultural insurance, and, multi-stakeholders’ consultation led by the Insurance Commission;
- Willingness-to-pay – a strategic approach that will promote a progressive reduction of premium subsidy and increase in WTP by farmers, taking into consideration the significant predictors include prior experience on crop insurance, educational attainment, and sex;

- Premium setting – strategy is needed on how to spread the risks in order to lower the premiums determined by the actuarial studies;
- Impact of WIBI on yield - For large-scale farmers, showed that the average yield significantly increased after the RCM training compared to the farmers' usual yield; and, For small-scale farmers, the result showed that the average yield DID NOT significantly increase after the RCM training compared to the farmers' usual yield.
- Impact assessment on poverty reduction and productivity - Its recommendations can prove valuable in the next up-scaling project design on the need for educating farmers on WIBI and other value chain key players, e.g. financial and input providers; and, for the conduct of a more structured determination of economic and social benefits accruing to farmers.

The Project was designed to lay the foundation for the roll out of WIBI in the future. However the above assessments and studies that have been conducted presupposes the continuation of more probing research work to reach a conclusive determination of each of the individual's assessment/study objectives, thus, the conduct of continuing activities by PCIC and other responsible parties. This would prove valuable in the preparation of the design of a WIBI roll out product. Hence, it is foreseen that one major output component of the future WIBI project is the conduct of successor studies and assessments.

4. The roll out of WIBI in the future would have to include a more intensified and effective awareness raising of both the transfer mechanism and climate resiliency of farmers and communities including other crops beyond rice and corn.
5. The development of weather indices and correlation factors for rice and corn and for additional crops, with standard features such as the more frequent release of weather parameters (other than rainfall) from the present 10-day intervals and for more locations will negate the effects of basis risks. This would result to an improved commercial acceptability of WIBI for its future roll out.
6. The determination of the universe of target farmer-beneficiaries will have to be largely dependent on the locations and coverage of PAGASA automatic weather stations and non-PAGASA weather gauges found acceptable and compliant, the crops for inclusion, availability of government credit programs, among others.
7. The capability of PCIC in actuarial and design of insurance products remains dependent on external experts' advice. The fact remains that weather index based insurance is still not a product or service of PCIC. Organizational capabilities of PCIC have to expand through the development and establishment of actuarial and product development units. When such capabilities are competently achieved can prospects for PCIC to provide this type of insurance provision be realized. PCIC has to continue its collaborative institutional linkages with PhilRice and PAGASA, and further pursue initiatives already undertaken with the private sector for their involvement as conduits for WIBI products in reinsurance. PhilRice have established institutional linkages with the academe and is further expanding this linkages with other members of the academic community. LGUs have been found to provide financing to farmers and this must be explored for potential linkages on WIBI products

The development of the integrated financial package can be location and crop specific and to ensure success, institutional arrangements with LGUs, local financial retailers, and other key value chain players should be firmly established. Likewise, the willing-to-pay factor can be addressed through a progressively decreasing proportion of government subsidies, i.e. increasing payment level by the insuring beneficiary.

8. The collaborative efforts among government agencies can still be tapped and expanded, and from an ad-hoc to a more permanent fixture in governance. This collaboration should be continued, and strategies to further strengthen this collaborative effort should be identified during the design phase of the rollout and up-scaling of WIBI. Project sustainability is most likely to occur. Government agencies need to continue to pursue their mandates and have their own programmed resources, and there are no indications that such will diminish in the near term.

A summary of the ratings, as determined by this terminal evaluation, is presented below:

Summary of Evaluation Ratings			
1. Monitoring and Evaluation	Rating	3. IA, RP& PMO Execution	Rating
M&E design at entry	HS	Quality of UNDP Implementation	HS
M&E Plan Implementation	HS	Quality of Execution-Executing Agency	HS
Overall Quality of M&E	HS	Overall Quality of Implementation / Execution	HS
2. Assessment of Outcomes	Rating	4. Sustainability	Rating
Relevance	R	Financial resources	ML
Effectiveness	HS	Socio-economic	L
Efficiency	HS	Institutional framework and governance	ML
Overall results (attainment of objectives)	S	Environmental	L
		Overall likelihood of sustainability	ML

Lessons Learned

- The use of target indicators, more particularly the number of farmers should consider the type of agricultural financial support on production as the WIBI insurance product is intended to be included into a financing package.
- Ensuring successful collaborative partnerships between and among government agencies require formal agreements.
- The conduct of assessments and studies must verify if further actions is needed, whether this be policy-related or action-related, as these could largely contribute to a higher level of attainment on outcomes and objectives.
- Finally, gender mainstreaming goes beyond an active effort of engaging women's participation in Project activities but includes an understanding of their roles in decision-making and in agricultural activities.

1. INTRODUCTION

1.1 Project Background³

The Government of the Philippines, keenly aware about the impact of climate-induced natural disasters has established the Inter-Agency Committee on Climate Change (1991), and thereon has moved forward with the signing of the United Nations Framework Convention on Climate Change (1992) and eventual ratification (1994). With the creation of the Climate Change Commission (CCC) in 2009, several key policy instruments were established, notably the National Framework Strategy on Climate Change (NFSCC 2010-2022) with its overarching vision translated into the National Climate Change Action Plan (NCCAP 2011-2028). The NCCAP identified seven strategic priorities on food security; water sufficiency, ecosystem and environmental sustainability; human security; climate-smart industries and services; sustainable energy; and, knowledge and capacity development.

Aside from the strategic priority on food security, the WIBI Mindanao Project is in line with the Disaster Risk Reduction and Management Act (2010) and calls for strengthening the capacities of national and local government units together with partner stakeholders to build disaster-resilient communities. Further, the Project will contribute to poverty reduction in pursuit of inclusive growth through the three broad strategies of the Philippine Development Plan (2010-2016) on high and sustained economic growth, equal access of development opportunities, and effective and responsive social safety nets.

The Project is an expansion and builds on previous similar pilot projects. These are the Climate Change Adaptation Project (CCAP 2009-2011), a United Nations joint programme financed by the MDG Fund and supported by ILO; and, the Philippine Climate Change Adaptation Programme (PhilCCAP), financed by SCCF and supported by World Bank. GIZ also funded two projects, namely: the Microinsurance Change Adaptation Programme for Social Security (MIPSS) and the Remote Sensing-Based Information and Insurance for Crops in Emerging Economies (RIICE). CCAP and PhilCCAP tested weather index-based insurance products and built the necessary institutional capacity within the PCIC; whereas MIPSS and RIICE tested an Area Yield-Based Insurance (ARBY) product. All these pilot projects focused primarily on testing the technical feasibility of weather index-based agriculture insurance.

The principle behind the design of this Project is to adapt and take into consideration the strengths and weaknesses of the WIBI products of, and lessons learned from, these pilot projects; and, combine the elements of climate risk-transfer mechanism and adaptation investments to promote the WIBI industry in a manner that is sustainable, pro-poor, and pro-vulnerable. The Project intends to transfer the residual risk of climate change while supporting farmers on resilient farming methods and by combining both within a single design framework, thus now essentially covering a wider varying range of climate risks. Thus, this is a good design feature as it offers farmers with greater vulnerability reduction support while lowering market risk perceptions among financial service providers (FSPs).

The partnership with private sector service providers is important to facilitate the integration of WIBI with other financial products, alter the way that the Agricultural Guarantee Fund Pool (AGFP) is applied, and the conduct of financial and technical assessments will inform the regulator and FSPs about the experience of this strategic approach.

1.2 Purpose of the Terminal Evaluation (TE)

The conduct of this terminal evaluation (TE) is to assess the Project performance vis-à-vis its targets and expected outputs, and its contribution towards its objective. It will also draw lessons to improve the sustainability of benefits arising from the Project, and aid in the overall enhancement of UNDP programming. The evaluation will cover the period November 2014 to June 2017. Specific objectives of the evaluation are:

³ Project Document: Scaling-up Risk Transfer Mechanisms for Climate Vulnerable Agriculture-based Communities in Mindanao

1. Assess the performance relative to its objectives and targets, as stated in the Project Document and AMAT (1.2.2 & 2.3.1.2);
2. Assess the relevance, effectiveness and efficiency of the Project's implementation and strategies in achieving the set outputs and results;
3. Determine local capacities developed and level of participation of stakeholders in the achievement of the outputs and results; and,
4. Identify lessons learned and innovative practices and recommendations to inform the potential scale-up of the Project.

1.3 Scope and Methodology

The conduct of the TE is in accordance with the guidance, rules and procedures established by UNDP and GEF as provided in the UNDP *Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects (2012)* by using the criteria on relevance, effectiveness, efficiency, sustainability and impact. Additionally, full compliance is to be observed on guidelines set forth by the UNDP *Handbook on Planning, Monitoring and Evaluating for Development Results* and the UNEG *Norms and Standards for Evaluation and Ethical Guidelines for Evaluation*.

As provided in the (Terms of Reference) ToR, the evaluation employed a mixed methods approach on the use of qualitative evaluation methods, e.g. documents review, key informant interviews (KIIs), focus group discussions (FGDs), and observations from project site visits. The conduct of a survey was not included in the Inception Report hence there were no quantitative analysis done in this TE report, hence the mere mention of the use of a quantitative method in the IR is to be considered an oversight. However, the methodology used is still deemed compliant with and in accordance with the Inception Report and the ToR for the most part. The evaluation relied on evidence-based information that is credible, reliable and useful. The evaluator followed a participatory and consultative approach ensuring close engagement with government and private sector counterparts, including farmers and farmer groups mainly to validate the wealth of information from Project documents made available.

The evaluator conducted field missions in Regions X and XI, more particularly on the following project sites: i) the Cities of Malaybalay and Valencia in Bukidnon; ii) Tugbok and Calinan Districts in Davao City; iii) Barangay San Agustin in Tagum City, Davao del Norte; and, iv) Sto. Tomas Municipality, Davao del Norte. The interviews included organizations and individuals composed of: i) municipal agriculturists; ii) agricultural extension workers; iii) agricultural technicians; iv) barangay chief executives and barangay council persons; v) farmers and farmer groups; vi) PCIC personnel based in the region; and, vii) Financial Service Providers.

The field mission extended into Metro Manila and the City of Munoz, Nueva Ecija for the conduct of interviews for Project Board Vice Chairman and PCIC President, UNDP Country Office Programme Manager, Project Manager, the Project Management Office, UNDP-GEF Regional Technical Adviser, and representatives of PAGASA, PhilRice, ACPC, and ATI. Annex 2 provides for the field missions' itinerary and summary of field visits; Annex 3 the list of persons interviewed and groups of farmers; and, Annex 4 the list of documents reviewed.

The rating scale in the table below is part of the performance standards stipulated by GEF to assess project relevance, effectiveness and efficiency, as well as the quality of M&E systems.

<p>Ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution</p> <p>6: Highly Satisfactory (HS): The project had no short-comings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency</p> <p>5: Satisfactory (S): There were only minor shortcomings</p> <p>4: Moderately Satisfactory (MS): There were moderate shortcomings</p> <p>3: Moderately Unsatisfactory (MU): The project had significant shortcomings</p> <p>2: Unsatisfactory (U): There were major shortcomings in the achievement of project objectives in terms of relevance, effectiveness, or efficiency</p> <p>1: Highly Unsatisfactory (HU): The project had severe shortcomings</p>	<p>Sustainability ratings:</p> <p>4. Likely (L): Negligible risks to sustainability</p> <p>3. Moderately Likely (ML): Moderate risks</p> <p>2. Moderately Unlikely (MU): Significant risks</p> <p>1. Unlikely (U): Severe risks</p> <p>Relevance ratings:</p> <p>2. Relevant (R)</p> <p>1. Not relevant (NR)</p> <p>Impact Ratings:</p> <p>3. Significant (S)</p> <p>2. Minimal (M)</p> <p>1. Negligible (N)</p>
<p>Additional ratings where relevant: Not Applicable (N/A); Unable to Assess (U/A)</p>	

1.4 Structure of the Evaluation Report

The structure of this terminal evaluation report adhered to the *Evaluation Report Outline* in Annex F of the TOR with some slight modifications, as follows:

- o *Section 1: Introduction* - The sub-topic on *Project Background* is included;
- o *Section 2.4*, end-of-project targets presented together with the baseline indicators; and,
- o *Itinerary and Summary of Field Visits* combined as Annex 2.

2. Project Description and Development Content

2.1 Project Start and Duration

The confirmation of co-financing by the Government of Philippines through a guarantee coverage by the Agricultural Guarantee Fund Pool in the amount US\$ 8.28 million and the Agricultural Credit Policy Council in the amount of US\$ 6.37 million or, a total of US\$ 14.65 million was made on October 8, 2013. The UNDP Country Office – Philippines confirmed on October 13, 2013 its co-financing support amounting to US\$ 1.6 million. SCCF provided the amount of US\$1.05 million.

The Project Document was agreed upon by NEDA (undated), the Office of Special Concerns of the Department of Agriculture (April 28, 2014), and by the UNDP – Philippines (May 29, 2014). The Project Inception Workshop was conducted on November 27-28, 2014, with the Report on Inception Activities for the period November 2014 to March 2015 submitted on March 2015.

During the inception workshop, it was agreed that the original three-year duration i.e. April 2014 to April 2017 be extended until December 31, 2017. The start of project implementation was reckoned on the first day, i.e. November 27, 2014, of the inception workshop instead of April 2014.

2.2 Problems that the Project Sought to Address

The Project Document clearly defined the need for a long-term solution and identified in detail the barriers that impede the achievement of the solution.

Need for Long-Term Solution

Small-scale farmers need to respond to systemic changes in the climate system, i.e. increasing atmospheric temperature and declining rainfalls that bring residual risks, through adjustments in cultivation methods. At the same time, farmers need to be prepared on planned adaptation through a combination of disaster risk management and risk-transfer mechanisms. While strengthening disaster risk-

management capacity generally requires long time and resources, raising awareness has become an immediate and cost-effective action generating significant impact.

Index-based insurance has become an emerging option for climate risk transfer, offering advantages to farmers compared to indemnity-based crop insurance. WIBI and ARBY are the two most common and piloted index-based insurance mechanisms that can assist the farmers in managing low-to-medium frequency covariate risks such as drought and excessive rainfall. Still in its infancy in the insurance business, index-based insurance required further testing of its technical feasibility by introducing it in more locations. At the same time, the financial implications for the underwriter, clients and retail agents required further studies. Lastly, adaptive and development impacts of such products on vulnerability reduction at the household and community levels as well as on food security at the macro level need to be determined as well.

While ARBY was still being tested during the design phase of the WIBI Mindanao Project, the feasibility of a WIBI provision in the country has been tested with initial success from its previous pilots and the government needed to start focusing on enhancing the practical feasibility of rolling out such a product at a wider scale. The choice of adapting weather index-based insurance for the Scaling-Up Risk Transfer Mechanism for Climate Vulnerable Agriculture-based Communities in Mindanao (WIBI Mindanao Project) thus built on the initial successes of the pilot project “Climate Resilient Farming Communities through Innovative Risk Transfer Mechanism” or the Climate Change Adaptation Project (CCAP). Implemented between 2009 to 2011 in Agusan del Norte (Region 13, Mindanao), it pilot-tested WIBI as part of an integrated financial package that included credit savings and life insurance. Assessment of the correlations between the historic rainfall record and average crop yield (for rice and corn) as well as laboratory-based assessment, crop water requirement for each growth stage, and subsequent payment trigger thresholds, were all determined. In two locations, 126 out of 688 farmers obtained payouts, and the quick payouts allowed the farmers to buy the necessary inputs to replant crops during the same production period.

Identified Barriers

Most barriers were attributed to the still infancy stage of index-based insurance industry. There have been limited provision of index-based insurance and these came from the few pilot projects that were small in scale and scope. Though useful in testing its technical feasibility, these pilots have resulted in the identification of barriers needed to be addressed by both Government and service providers in order to scale up and increase effectiveness and sustainability of index-based insurance.

Limited Policy, Regulatory and Institutionalization

The pilot projects have revealed that there exists only one government entity i.e. PhilRice, to set indices for WIBI. Being site specific as a requirement entails time and resources and this prevents PCIC from streamlining WIBI product development and scaling up to larger geographical coverage and larger number of farmers and crops. As these pilots were focused on technical feasibility, determination of appropriate premium rates remain undeveloped and government subsidies continues to be granted.

Limited Understanding of WIBI Products

Most critical is the limited understanding of WIBI products by most implementing partners, and more so by the regulators, financial service providers, and target clients, as well. For retailers, intermediaries and farmers alike, the understanding is practically non-existent. Hence, the many advantages of integrating WIBI into an existing financial package made critical the development of standardized literacy and awareness raising materials.

Fragmented Provision of WIBI Products in Financial Service Delivery

FSPs generally offered credit, savings, and insurance products in a fragmented way and served by different units within the organization. This represented a lost opportunity, as poor clients are unable to take advantage of combining credit and/or savings with WIBI services. Experience in other countries have strongly suggested that take-up of WIBI is higher when endorsed by the financial service provider. This could very well apply too in the Philippine setting. Theoretically, integration of WIBI into a financial package

is likely to have a positive impact in the long-term financial performance of FSPs. Loan portfolios of FSPs can be protected from external shocks brought about by covariate risks such as a weather calamity.

Limited Knowledge and Capacity of Farmers to Address 'Basis Risks' and Disaster Risks

Management of basis risks is important for the successful and sustainable roll-out of WIBI. Basis risk, as defined, is the difference between the loss experienced and the payout received by the farmer. A farmer may experience yield loss but not receive a payout or, a payout made without a loss incurred. Basis risks in the Philippines refers to pest and diseases and spatial, of which a common form is a flashflood originating outside of a particular weather station.

2.3 Immediate and Development Objectives of the Project

The Project Document clearly defined the overarching objective of *“Poverty reduction by strengthening the resilience of vulnerable agricultural-based rural communities in Mindanao through climate risk transfer mechanisms and productivity enhancement measures”*.

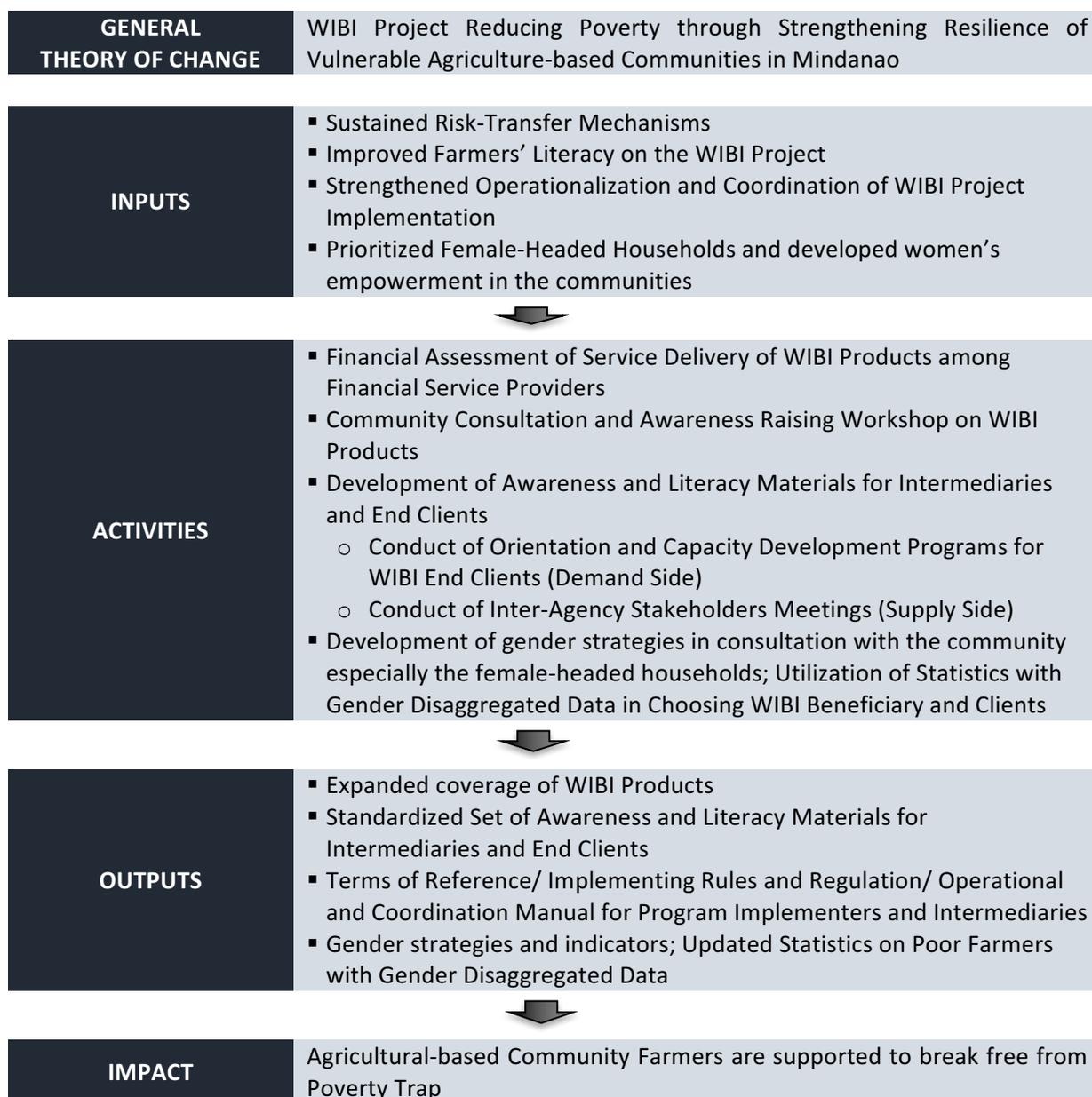
In the section on rationale and project conformity of the Project Document, this was consistent with the overall objective of Special Climate Change Fund (SCCF) i.e., *“To implement long-term adaptation measures that increase the resilience of national development sectors to the impacts of climate change”*. In the same section, consistency is attained with the GEF Focal Area Objective and Outcomes on Climate Change Adaptation (CCA) 1 – *Reduced vulnerability to the adverse impacts of climate change, including variability at local, national, and global level*; and, CCA 2 – *Increase adaptive capacity to respond to the impacts of climate change, including variability at local, national, and global level*.

Given these consistencies with the programming guidelines of SCCF, the Project targeted climate change adaptation measures that were complementary, and focused on strengthening the resilience of agricultural systems by introducing and incentivizing innovative financial mechanisms for vulnerable agricultural-based communities, i.e. small-scale farmers. The Project was further consistent with SCCF eligibility criteria on being country-driven, cost-effective, and integrated into national sustainable development and poverty-reduction strategies; and, took into consideration national communications and other relevant studies and information.

Thus, the Project had the potential to form an important component in the SCCF portfolio by providing lessons to inform long-term adaptation approaches leading towards increased climate resilience that are likely to be applicable beyond the specific realm of innovative risk transfer mechanisms. The specific Project outcomes were:

1. Regulatory and fiscal incentive structures adjusted to stimulate private sector engagement in climate risk reduction and transfer for agriculture-based rural households;
2. Weather index-based integrated Financial Package customized and applied to strengthen climate resilience in the agriculture sector in Mindanao; and,
3. Farmers and producers organizations and other local stakeholders able to analyze climate risk, and develop and implement adaptation practices to enhance productivity in agriculture and off-farm enterprises in support of a sustainable, diversified and market-driven economic base.

The Project's Theory of Change was constructed and found on the study conducted by Reileen Joy Dulay and entitled *“Impact Assessment of the WIBI Mindanao Project on Poverty Reduction and Farmer Productivity”*, UNDP, 08 March 2017, and is reintroduced below.



2.4 Baseline Indicators, End-of-Project Targets Established

The main indicators that determined the levels of Project successes at the Objective and Outcomes and their corresponding Baseline Indicators were all contained in the Project Results Framework of the Project Document, and amended during the Inception Workshop. These were all taken from the UNDP's "Monitoring and Evaluation Framework for Climate Change Adaptation", and aligned with SCCF "Adaptation Monitoring and Assessment Too" (AMAT).

The Project is aligned with and supportive of the United Nations Development Assistance Framework (UNDAF), 2012-2018, "Supporting Inclusive, Sustainable and Resilient Development" which identified four (4) outcome areas on Universal access to quality social services, with focus on the MDGs; Decent and productive employment for sustained, greener growth; Democratic governance; and, Resilience toward disasters and climate change. Outcome 4: *Adaptive capacities of vulnerable communities and ecosystems will have been strengthened to be resilient toward threats, shocks, disasters, and climate change* has 3 focus areas,

namely: Disaster risk reduction and management; Climate change adaptation; and, ENR protection and conservation.

The table below show the objectives and outcomes, and indicators.

	Baseline	Indicator	Target End-of-Project
Project Objective Poverty reduction by strengthening the resilience of vulnerable agriculture-based rural communities in climate risk transfer mechanisms and productivity enhancement measures	No families are currently covered by WIBI in the project target sites	% of population covered by weather index-based insurance mechanism	At least 2,000 families in target villages are covered by WIBI
	Average damage rates from 30-year history for rice 22%-26% but the damage rate from the target population will be established during the inception phase of the project	Reduced damage rate in rice farming	Beneficiary farmers demonstrate 20% damage rate (i.e. 2% - 6 % lower than average) during the normal year, i.e. when WIBI payouts are not made
Outcome # 1 Regulatory and fiscal incentive structures adjusted to stimulate private sector engagement in climate risk reduction and transfer for agriculture-based rural households	Currently there is no incentive mechanism in place to stimulate private sector engagement in WIBI provision	Availability of an incentive mechanism for private sector in WIBI provision	The application of AGFP adjusted / expanded for FSPs to avail of preferential guarantee coverage
	PCIC is not ready for designing a new WIBI contract beyond rice and corn	PCIC's readiness in expanding WIBI to new crops beyond rice and corn	Preliminary assessments for covering new crops under WIBI are complete and PCIC is ready to start pilot testing
Outcome # 2 Weather index-based integrated Financial Package customized and applied to strengthen climate resilience in the agriculture sector in Mindanao	No families are currently covered by WIBI in the project target sites	% of population covered by weather index-based insurance mechanism [AMAT 1.2.2]	At least 2,000 families in target villages are covered by WIBI (The number of female-headed households, sex-disaggregated where possible, will be reported)
Outcome # 3 Farmers and producers organizations able to analyze climate risk, and develop and implement adaptation practices to enhance productivity in agriculture	Twin Phoenix Project has reached out to 168 barangays in Regions 10 & 11 using the results of the V&A and hazards/risk maps	Number of community groups trained in climate change risk reduction [AMAT 2.3.1.2]	At least 30 barangays are aware of both the slow and sudden climate risks and of the response measures
	The ATI has on-going projects on Farmers Decision Support System in Regions X and XI that train farmers on climate resilient agricultural practices		At least 600 farmers and 20 farmer associations have been trained on resilient agricultural techniques (sex disaggregated target will be determined during the inception phase of the Project)

The baseline indicators reflected the Project's aim of providing an alternative adaptation scenario to alter the regulatory and financial structure to stimulate private sector engagement in the climate risk-transfer business for small-scale agricultural farmers.

2.5 Main Stakeholders

The Project Document provided for a stakeholder baseline analysis considered from the initial experience of the CCAP and PhilCCAP pilot projects, the scaling up and sustaining of innovative and functional agricultural risk-transfer mechanisms, especially targeting socio-economically weaker and climate-vulnerable farming communities, required close partnership, engagement and coordination among stakeholders.

The engagement process began with the Department of Agriculture (DA) and the Philippine Crop Insurance Corporation (PCIC), the two main government institutions responsible for the promotion of agricultural development and delivery of agricultural insurance products – as both have to expand to include a wider range of players through an inclusive and participatory mode.

At the national level, the DA and PCIC will forge and sustain partnerships with the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) of the Department of Science and Technology (DOST), the Climate Change Commission (CCC), academic and research institutions, FSPs, and relevant national-based NGOs, among others. These key stakeholders will intensify their engagement and support to LGUs through their respective agricultural offices, as well as with community-based organizations and cooperatives at the selected Project sites to develop their competence and demonstrate their capacities that have been enhanced through the Project. The enumeration of the main stakeholders and their respective potential roles, tasks and contributions for the Project are described below.

Department of Agriculture – Provide financial support through AGFP, PCIC and ATI to encourage the participation of private sector partners in offering appropriate risk protection to the agricultural poor. Although the role, tasks and contributions of AGFP was not mentioned in the baseline analysis, output 1.1 specified that AGFP is the designated responsible party.

Philippine Crop Insurance Corporation – It was agreed by relevant agencies of Government during the GEF Operational Focal Point in September 2013 that PCIC will serve as the Implementing Partner, mainly responsible for managing the Project, together with its regional offices. Thus, PCIC is expected to sustain the results.

Agricultural Training Institute – This attached agency of DA will be closely involved in developing the capacity of farmers and farmer associations increase their resilience of agricultural production (Output 3.2)

Insurance Commission – Implement the National Strategy for Micro-insurance and the Regulatory Framework for Micro-insurance (2010) as a critical activity towards encouraging, enhancing and facilitating the safe, sound provision of micro-insurance products and services especially for the low-income sectors. The Project will assist Government in laying the foundation for a wider application of risk sharing and risk transfer mechanisms. This is a key target in policy advocacy.

Philippine Insurers and Reinsurers Association (PIRA) – Members of PIRA are to be invited in key workshops that present lessons from the Project.

National Credit Council, Department of Finance - To encourage micro-finance institutions to include insurance to their list of services, and expand risk protection for the low-income segment.

Climate Change Commission - Create an enabling environment for the design of relevant and appropriate risk-sharing and risk-transfer instruments. Given their experience and involvement in the baseline UNDP-supported DRRM projects, they will be invited to carry out activities on enhancing community-based disaster risk management in at least 30 barangays (Output 3.1).

Philippine Commission on Women (PCW) – Provide inputs and guidance on gender and development perspectives in addressing residual risks from natural hazards and climate change.

Philippine Rice Institute (PhilRice), Northern Mindanao Integrated Agricultural Research Center (NOMIARC), State Colleges and Universities (SCUs) - These academic and research institutions are to be involved in developing indices for high-value agricultural crops, provide inputs for policy formulation, and mentoring extension service providers in the target areas.

National NGOs e.g. CARD-MRI – The Project will closely collaborate with NGOs such as the Center for Agricultural and Rural Development–Mutually Reinforcing Institutions (CARD-MRI) in further improving insurance products for smallholder agricultural producers.

Microfinance Institutions / Providers – Financial service providers will partner with PCIC in integrating WIBI into their financial packages; and, collaborate with the Project in carrying out an impact assessment of WIBI on the portfolio performance after WIBI is integrated.

Local Government Units (Provincial, Municipality, Barangay) – More particularly the agricultural offices are considered key Project stakeholders as they can serve as collaborators, facilitators and co-implementers to address local policy issues and service the needs of the local agricultural producers.

Collective Strengthening on Community Awareness on Natural Disasters (CSCAND) Agencies – Collectively composed of Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA-DOST), Philippine Institute of Volcanology and Seismology (PHIVOLCS-DOST), Mines and Geosciences Bureau (MGB-DENR), National Mapping and Resource Information Authority (NAMRIA-DENR), Office of Civil Defense (OCD-DND). The National Disaster Risk Reduction Management Council (NDRRMC) was added.

The following agencies will be closely engaged under the leadership of CCC in the provision of capacity building support (Output 3.1) by disseminating information about WIBI and slow/chronic climate risks to community members during the DRM capacity building workshops.

Agricultural Communities – Serve as Project beneficiaries and key contributors of inputs in the identification of policy bottlenecks and opportunities for micro-insurance. Benefits will be provided to at least 2,000 families through gaining access to a WIBI risk-transfer mechanism (Outcome 2); another 600 farmers and 20 farmer associations through climate-resilient agricultural extension services; and, 85,000 individuals in 30 barangays from capacity-building for and awareness raising about DRM and WIBI.

Development Partners – The Project will ensure synergy and complementation with GIZ, World Bank, ILO on related initiatives and in facilitating channels for regular sharing of experiences, lessons and results to improve tools, approaches, and systems, and advance development effectiveness. In particular, the Project will work with GIZ-supported RIICE initiatives for developing literacy modules for index-based insurance products. For the WB-supported PhilCCAP initiative, this will be towards expanding the climate-smart farmer field school (FFS) and Farmer Decision Support System through PCIC and ATI.

United Nations Development Programme (UNDP) - Responsible for the effective management and delivery of programme outcomes through the projects.

National Economic and Development Authority (NEDA) – Monitor and evaluate Project implementation as part of its role in the management of Official Development Assistance (ODA) portfolio of the country.

GEF Operational Focal Point – The Project will closely work with GEF-OFP with respect to coordination, integration and consultation at the country level for GEF-supported projects.

2.6 Expected Results

The expected key results and end-of-Project targets were provided in detail in the Project Results Framework (PRF), with changes adopted in the Project inception workshop, below:

Project Objective: Poverty reduction by strengthening the resilience of vulnerable agriculture-based rural communities in climate risk transfer mechanisms and productivity enhancement measures

Outcome # 1: Regulatory and fiscal incentive structures adjusted to stimulate private sector engagement in climate risk reduction and transfer for agriculture-based rural households

DA manages the AGFP (valued at PhP4.4 billion) and is used to reduce the exposure of public and private by securing part of their loan portfolio against potential default. Different from a public subsidy, as the guarantee comes only when there is a default and covers only a fraction of the loss, thus avoiding moral

hazard, an inherent issue with a subsidy scheme. The development of a new mechanism that formally links the loan guarantee fund to the WIBI provision is envisioned so that those FSPs that integrate WIBI into their financial packages are able to avail of greater guarantee coverage for their loan portfolio.

PCIC, another DA attached government-owned corporation, only has a penetration rate of 6% and 3% for rice and corn respectively, with the number of uninsured farmers disproportionately large among poor, smallholder farmers. Thus, it is important that PCIC diversify insurance products, geographical coverage, and crop coverage so that potential impacts of covariate risks are minimized, while exploring the option of linking the domestic market with the global reinsurance market.

Outcome # 2: Weather index-based integrated Financial Package customized and applied to strengthen climate resilience in the agriculture sector in Mindanao

This would facilitate a greater roll out of tried and tested WIBI products, with particular focus on female-headed households. At least 2,000 new high-risk households in remote and far-flung barangays will be covered with packages that include credit/loans, savings and other services to include financial literacy and WIBI by FSPs through the Agro-Industry Modernization Credit and Financing Program (AMCFP) and the Agrarian Production Credit Program (APCP). The same households will have access to climate-resilient agricultural extension supported (outcome 3).

While actual location-specific indices still need to be established, it is expected that a streamlined indexing process would be facilitated through the technical assistance of PhilRice, with the actual index-setting offering hands-on training opportunities for institutions that are selected as potential agents authorized for indexing (see output 1.2).

WIBI will be integrated as it will be accompanied by focused awareness raising and literacy support for farmer-clients. The development of standardized WIBI literacy modules, as corroborated by the experiences of the CCAP and PhilCCAP pilots, will assist the FSPs on their understanding about WIBI products in general and its subsequent impacts on their operations. Another module will be developed to assist the FSPs become the trainer of WIBI for their clients.

Two types of assessments will be undertaken. One, is on the impact of WIBI on the financial performance of FSPs especially on costs and benefits. Second, a qualitative/quantitative (not just anecdotal stories) assessment on the impact, gender differentiated, of the WIBI product on the vulnerability reduction of households.

Outcome # 3: Farmers and producers organizations and other local stakeholders able to analyze climate risk, and develop and implement adaptation practices to enhance productivity in agriculture and off-farm enterprises in support of a sustainable, diversified and market-driven economic base

To enhance farmers' understanding about future climate-induced natural hazards while developing their capacity to implement climate-resilient farming practices. These two facets are prerequisites for the effective functioning and sustainability of the WIBI industry. SCCF resources will be used to expand the work of Climate Twin Phoenix project as the latter have no more resources beyond the 168 barangays that it has covered.

Thus, the additional 30 barangays covering an estimated 85,000 residents. Hazard maps and vulnerability assessments developed by the Climate Twin Phoenix project at the Provincial / City / Municipality levels will be used to facilitate participatory awareness raising at the barangay level, and the development of a contingency plan. The extent of information on the maps, i.e. hazard characterization, consequence analysis or impact assessment, frequency and risk estimations, and flood modeling analysis, is believed to be sufficient to facilitate barangay-level assessment – leading towards the formulation of an Integrated Contingency Plan for Natural Disasters in each of the target barangays.

Simultaneously, the elements of emerging slow/chronic risks of climate change, its impact on livelihoods, and risk mitigation measures (including climate-resilient agricultural techniques and climate risk-transfer mechanisms) will be integrated into a standard awareness-raising and capacity-building program. Existing awareness raising materials will be reviewed, and effective ways in which the module on slow/chronic risks of climate change and risk mitigations measures will be included in the archives of training materials.

The effectiveness of a risk transfer mechanism hinges on managing the basis risks, and is important for WIBI product to work properly. Hence, coping measures against smaller yet non-negligible variations must be carried out by farmers. Strengthening and replicating the work developed by PhilCCAP project, the Project will expand the coverage of the Farmer's Decision-making Support System (FDSS) and the Enhanced Climate-smart Farmer's School (ECFS), supported by IRRI and ATI, respectively. The expansion will target an additional 600 households and at least 20 farmer associations.

Women's participation in awareness raising activities and on the FDSS and ECFS will be encouraged, and sex-disaggregated progress will be reported in terms of participation. SCCF will fund-support the conduct of all these activities.

3. Findings

3.1 Project Design / Formulation

3.11 Analysis of Results Framework (Strategy, Indicators)

The design of the Results Framework started with the Project Document clearly illustrating the country's situation amid climate change that made difficult alleviating persistent poverty among vulnerable agricultural households, especially in Mindanao that is dominantly agricultural and considered the food basket of the country, thereby threatening food security. The identification of barriers or problems through long-term solutions defined existing conditions that affected agricultural productivity.

The need to address this logically led to the strategic interventions of rolling out climate risk-transfer mechanisms, productivity enhancement measures, and climate change awareness raising and institutional capacity building – grounded on previous local pilot crop insurance projects, and the wealth of experience in the country's disaster risk-reduction management. The enumeration of activities to attain targets and planned outputs depicted a strong causal relationship towards achieving the Project objective of reducing poverty through strengthened resilience in vulnerable and climate-risk agricultural communities.

The decision to design the Project built on baseline activities of the national government on its disaster risk management and climate change adaptation and, in consideration of the strengths and weaknesses of both the CCAP and PhilCCAP pilot projects that previously tested the technical feasibility of WIBI and towards the strengthening of the institutional capacity of PCIC is exemplary. This ensured continuity and expansion of WIBI to move forward beyond its current infancy stage in the local crop insurance industry.

The formulation of baseline indicators and end-of-project targets for Project Objectives and Outcomes were examined. The objective stated that poverty reduction as the ultimate goal with the baseline and end-target indicators focused on determining a reduction of damage rates on palay production were indeed laudable. But this would have required huge resources for a baseline survey of target beneficiaries at Project start. The absence of any indication that data was available on damage rates before and towards Project end indeed proved that this was a difficult and complex task. However, considering the relatively short timeframe of the intervention, and the knowledge on the absence of a damage rate database despite its inclusion as values in the project document, the use of payouts as an indicator of effective risk reduction transfer proved more useful. As correctly pointed out, GAP reduces damage rates and is more useful in a 'loss-adjustment based type of crop insurance as in ARBY, but not for a WIBI product.

The determination on the acceptable least number of families covered by the WIBI Project appeared to be justified. The decision was based on the discussions during the regional inception workshop that reduced it from the 3,000 original target, and should payouts exceed the targets, the target will be subsequently

returned to its original target but contingent upon Project Management decision and if recommended by the mid-term evaluation.

Although not indicated in any document, it is believed that the appropriate simpler approach utilized during the inception stage was to identify the palay and corn producing areas without WIBI coverage that are reached by the 20-30 kilometer radii of all PAGASA automatic weather stations (AWS) in Regions X and XI did establish the baseline universe of target villages and farmer-households. Such being the case, the indicator “% of population covered by WIBI mechanism” and end-target of 2,000 families would prove more meaningful and justifiable. However, there was no final proportion of the population that was computed.

The respective indicators and end-of-project targets for outcomes 1, 2, and 3 were basically logical and acceptable; and, their corresponding outputs and activities would lead to the attainment of these targets. The formulation of Project objectives and planned outcomes fully conformed with SMART. Specific change language were used such as: reduced damage rate; families covered by WIBI (from no families); application of AGFP (from no incentive mechanism); PCIC ready to start pilot testing (from PCIC not ready); farmers and farmers associations trained on resilient agricultural techniques. On Measurability – the indicators included quantitative targets of 2,000 families, % of population, reduction of damage rates of between 2% to 6%; and, qualitative targets such as those mentioned in the above specific changes. On Achievability – the Project relied on the mandates of its respective Implementing Partner, i.e. PCIC, and responsible parties, e.g. ATI, PAGASA, others. Regarding Relevance – this has been discussed in the first portion of this section, i.e. the country’s situation amidst climate change and the identification of barriers and long-term solutions. Finally, the results framework made clear that the Project will operate for three (3) years.

3.12 Assumptions and Risks

The Project Document enumerated the assumptions and risks in the Results Framework, and a Risk Log was developed and included as Annex III of the Document. The Risk Log identified a total of nine (9) risks and their type, and their respective management responses and countermeasures, the degree of impact and probability of a risk occurring, the responsible party/ies who can address the risk, and who and when the risks were identified. The inception workshop provided no indication on whether the risks and assumptions were presented and discussed or, was outright accepted by all parties. The risk log was evidently developed prior to the inception workshop, submitted, and updated solely by the Project Manager, thus may be bereft of any ownership among partners and parties of the Project.

A more thorough presentation and discussion among stakeholders could have enriched the identification of the assumptions and risks, especially when the pilot project is engaging several government agencies. Risks on resource availability, priorities, and even differing bureaucratic processes require immediate strategic management responses and commitment early on, preferably during the inception phase. However, the identification of assumptions and risks in the results framework and the inclusion of management responses and countermeasures in the risk log showed that it is expected that these assumptions will most likely occur, and the anticipated risks needed to be addressed in order to successfully attain Project objective.

Technically speaking, assumptions should refer to situations, events, conditions or decisions which are necessary for the success of the project, but which are largely or completely beyond the control of the project's management; and, conversely for statements attributed as risks. Given this, there were several assumptions that are in fact risks, and vice-versa. For instance, in Project objective, the *financial allocation of government resources is incrementally reduced, affecting provisions for agricultural service extensions* is rather an assumption. And, so is the *“bureaucratic and political process delays the approval/endorsement of the modifications in AGFP rules”*.

Another assumption that could have been included would be farmer-beneficiaries lack of access to formal lending due to their weak adsorptive capacity. This could prepare alternatives in the roll-out of WIBI should a possible low level of engagement by the Financial Service Providers occur.

3.13 Lessons from Other Relevant Projects (e.g., same focal area) Incorporated into Project Design

The Project Document did present other relevant projects to highlight lessons learned from the PhilCCAP and CCAP pilot projects, and incorporated into the Project design and its formulation. CCAP was implemented in Agusan del Sur (Region XIII, Mindanao) in 2009-2011 and pilot-tested WIBI as part of an integrated financial package that included credit, savings, and life insurance. The pilot project was implemented in partnership among ILO, DA, PCIC, PhilRice, ATI, DTI, and DOLE. WIBI covered 2 crops, rice and corn. CCAP made an assessment on the correlation between the historical record of rainfall and average crop yields, crop water requirement for each growth stage of the crops, and subsequently computed the thresholds that can trigger payments.

PhilCCAP on the other hand, also pilot-tested WIBI but on a smaller scale than CCAP, but focused more on other WIBI-related activities more particularly on: research to establish reliable weather-crop-yield indices; create insurance contracts based on the indices; test operational procedures; educate farmers; evaluate the pilot activity; and, its replicability to other sites. The pilot project also assisted in developing the Farmer's Decision Support System and strengthening the "enhanced climate-smart farmer's school".

Similar other programs also lent impetus to the design of the Project. MIPSS offered critical lessons in pilot-testing an area-based yield index insurance (ARBY) that is issued against the average yield for a region. It also built the knowledge base of PCIC as it was able to reinsure the loan portfolio against extreme weather events. Thus, ARBY and WIBI were deemed complementary.

The Project Document emphatically stated that this Project reflected the strengths and weaknesses of the WIBI products developed by these pilot projects. By combining the elements of climate risk-transfer mechanism with adaptation and promoting new WIBI product features that will cover a wider variation of climate risks, would thus offer farmers with greater vulnerability reduction while lowering the risk perception among FSPs.

3.14 Planned Stakeholder Participation

In the Project Document, a baseline analysis on stakeholders identified their respective potential role and rationale for involvement, and their concomitant prospective benefits were enumerated in detail. Potential roles made specific reference to particular outcomes, outputs and activities whereas, the prospective benefits centered on stakeholders' opportunity to improve their respective implementation and performance of their mandates. The potential roles have been earlier presented in section 2.5 of this report.

In annex 2 of the Document, the stakeholder involvement plan recognized the wide range of stakeholders composed of several government departments and offices, and academic and research institutions to implement and support the Project, and were tailor-fitted to the specific needs of the three outcomes. The other stakeholders also included local government units, financial service providers, NGOs and farmers. Project milestones over the 3-year period were also included.

The plan also stated that in general, stakeholder engagement in Project implementation will begin during the conduct of the inception workshop at the national level, and as well as site-level workshops in the target regions. Prior to the national inception workshop, there were indications the Project Document has undergone a series of prior consultations among stakeholders during the formulation of the Project design.

The conduct of the Technical Working Group organizational meeting a week before (November 20, 2014) the inception workshop was the first major activity, and was able to successfully present most of the content of the Project Document, paving the way for a smoother conduct of the workshop proceedings. Thus, there were only a few proposed minor revisions to the overall project results framework.

A series of follow-up meetings after the inception workshop also ensued during the early part of 2015, with the conduct of regional missions/inception workshops further enhancing the contents and understanding of the Project Document, and solicited the commitments of most stakeholders to participate in the Project.

The past involvement in almost similar pilot projects on climate-risk transfer mechanism, productivity enhancement, capacity building, agricultural extension services among most stakeholders of this Project facilitated their re-engagement in this Project and quicker understanding of their roles and responsibilities.

3.15 Replication Approach

Cognizance was made in the Project Document that the Project is the third in a series of pilot projects focusing on the development and advancement of weather index-based insurance. The technical feasibility of WIBI was tested by CCAP during 4 cropping cycles, i.e. 2 dry and 2 wet seasons; while PhilCCAP refined the thresholds, assessed the basis risks, and determine the final appropriate premiums. In both these pilot projects, PCIC was extensively involved.

Hence, this Project directly built upon these prior projects and replicating good practices, demonstrated the commitment of the Government to further develop WIBI by expanding its geographical and crop coverage, and by working with development partners and combining various donor support and funds.

Several mechanisms and measures that this Project employed will enhance the potential for replication of Project results, most notably the following: the feasibility assessment to cover more non-rice and non-corn crops under WIBI; and, complementarily, the training of additional agencies for index setting for rice and corn and other crops. All this implies the readiness of WIBI for roll out will be largely enhanced.

In addition, this Project entailed that PCIC continue to closely work with both the private and public financial service providers to integrate WIBI into their financial products emphasized continuing replicability of Project results in the future. WIBI is a product that continues to be difficult for farmers to understand, with past studies indicated that the take-up of the product increases when actively sold by a trusted agent through a face-to-face transaction. Thus, a partnership with FSPs is essential for it can combine crop insurance with its financial services, while PCIC can leverage their network of FSP branches and officers that other government agencies lack. Furthermore, lessons learned during Project implementation can be shared with other prospective FSPs on a national scope that can accelerate expansion of Project results.

3.16 UNDP Comparative Advantage

Extensive discussion on UNDP's competitive advantage was contained in the Project Document starting with its long-standing experience with the Government in providing technical assistance and fund support on climate change especially on adaptation and disaster risk reduction with strong focus on capacity development and policy support. Among these were its support in the formulation of the INC and SNC, and the implementation of a series of CCA-DRM projects. Through all these projects, UNDP partnered with a host of government agencies and bodies, and this network provided strategic importance for this Project. One, bringing down to the community level the know-hows, experience, methodologies, and tools for disaster risk management that have been tested and proven, and the established partnership along the vertical chain of DRM institutions was crucial for effectively implementing Outcome 3. Two, UNDP's long-standing partnership with the Climate Change Commission will facilitate effective uptake of lessons for future establishment of relevant policies or for scaling-up of best practices.

Finally, UNDP has been identified as one of lead UN agencies for UNDAF Outcome 4 *“Adaptive capacities of vulnerable communities and ecosystems are strengthened to be resilient to threats, shocks, disasters, and climate change”*.

3.17 Linkages Between Project and Other Interventions Within the Sector

As discussed in preceding sections, the Project built upon previous pilots on climate risk transfer mechanisms, disaster risk management capacity building and agricultural productivity enhancement trainings.

The Project was able to successfully acquire fund support from UNDP of US\$1.6 million in parallel co-financing through the baseline Climate Twin Phoenix project that are also operating in Regions X and XI.

SCCF resources will be used to disseminate information on disaster risks produced by this Project to an additional number of barangays beyond those that have been covered by the Phoenix project. Moreover, the community-level awareness raising by Phoenix did not cover chronic risks brought by climate change thus missing on out on an important element on climate risk. This Project will therefore integrate this element in its community-based DRM awareness raising, as well as the aforementioned information dissemination.

3.18 Management Arrangements

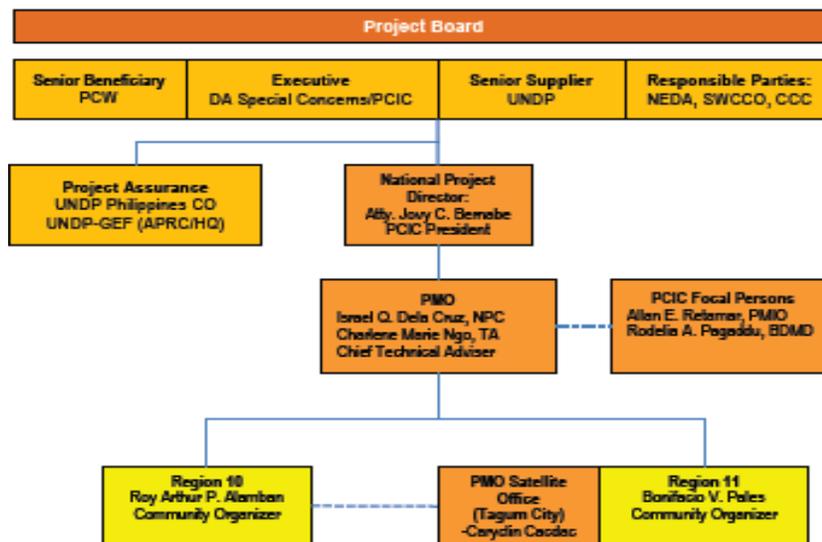
The management arrangements were presented in detail in the Project Document and in accordance with UNDP’s National Implementation Modality (NIM), and was agreed upon in the project management implementation guidelines by both UNDP and the Government. It provided brief descriptions of the executive functions and respective specific responsibilities of various individuals and collegial bodies.

These included the functions of the Implementing Partner (IP), the Responsible Party (RP), the Project Board (PB), the National Project Director (NPB) who acts as the PB Chair, and the Senior Supplier (UNDP representative). And, the Senior Beneficiary (individuals or group of individuals representing the interest of those who will ultimately benefit from the Project, who is a PB member to ensure the realization of Project results from the perspective of the Project’s beneficiaries).

The Project Board is composed of seven permanent members representing the following offices: 1] UNDP; 2] PCIC; 3] DA-Office for Special Concerns; 4] DA-Systems-Wide climate Change Office; 5] NEDA; 6] PCW; and, 7] CCC.

The Project Management Unit (PMU) based in Manila, headed by a National Project Manager, and assisted by an Administrative Officer, a Finance Officer, and a Program Officer. The tasks of the PMU were also defined to: develop standard operating procedures for Project implementations; develop quarterly and annual work plan and budgets; provide financial and administrative management support; prepare quarterly and annual financial and technical progress reports – for submission to UNDP. Likewise, the PMU ensured compliance with applicable UNDP-GEF-SCCF-GoP rules and regulations. The specific functions and specific responsibilities of the PMU were well defined in the Document.

The Inception Workshop presented an updated management scheme and designate key positions in the organizational structure that clearly showed the relationships among the management team of the Project, below illustrated:



3.2 Project Implementation

3.21 Adaptive Management, Including Changes to the Project Design and Project Outputs During Implementation

During the inception workshop in November 27-28, 2014, there were proposed changes to the Project Document, ranging from major ones, e.g. inclusion of another government agency, to minor ones. This showed the extent of management level of adaptability, degree of participatory planning, and openness to scrutiny.

The changes that were made in the Documents appeared to have been of importance to ensure success of the Project. These changes included:

- i] The inclusion of the National Disaster Risk Reduction Management Council (NDRRMC) to CSCAND – Output 3.1;
- ii] Hiring of a Chief Technical Adviser with M&E background instead of an M&E Officer at the PMO sufficed in order to streamline cost and maintain budget efficiency; and, the terminal evaluation will likely augment the M&E requirement of the Project;
- iii] Reduction of household targets from 3,000 to 2,000 based on the regional consultations done as this is more realistic considering Project resources may not be able to afford payouts at the original level – end-of-Project target; and,
- iv] Change in the original Project start date (as discussed in section 2.2).

The CTA key recommendations in the Policy/Legal, Technical, Marketing and Operations, other components of WIBI Project implementation and sustainability proved pivotal. These were on:

1. Policy/Legal - The creation of the risk mitigation fund sourced from a proportionately small portion of penalties collected from the non-compliance/under-compliance of the Agri Agra Reform Credit Act of 2009 to be utilized to further develop and sustain WIBI in the future; and, the forging of a viable partnership agreement between PAGASA and PCIC to make the weather data available during and even after the project;
2. Technical – The conduct of preliminary activities in the Guidelines as mandatory requirements for indexing to first establish a strong correlation between weather index and yield or crop quality; the physical expansion of WIBI for PhilRice to finally compute for the indices in other parts of the country; the linking of PABS and PUMIS of PAGASA for real-time availability of cleaned weather data; and, the financial risk analysis to gain a better understanding of the financial impact weather can have on a particular agricultural activity;
3. Marketing & Operations – A marketing plan that should define the target individual and portfolio clients of WIBI products as the latter can significantly reduce marketing and education costs necessary to roll out the products; the willingness-to-pay (WTP) to assist policy makers and insurance companies to widely intervene for the weather insurance product to the rural parts of the country. Moreover, the development of two research frameworks in the pricing of WIBI premiums, a critical determinant for take-up of WIBI upon roll out; the establishment of PCIC Parametric Insurance Unit (PIU) as PCIC's current programs and products are indemnity-based and staff need to be identified to carry out the index-based program to sustain WIBI products already piloted in the past years; and, a reinsurance analysis.

Changes of terminologies used were also done for accuracy, i.e. 'Bureau of Agricultural Statistics' to 'Philippine Statistics Authority' 'national' to 'regional' survey of 300 households as this will be conducted in Mindanao, 'gender'- to 'sex'-aggregated, and 'improved' to 'reduced' damage rates.

There were no changes on Project Outcomes and Outputs during implementation. However, changes were implemented on certain activities within some outputs. These changes were approved by the Project Board and included in the annual Project Implementation Reports, and are enumerated below:

- Inclusion of Camiguin, being one of poorest provinces in Region X, although this was not realized;
- No need to conduct survey for the correlation studies (Activity 1.3.2) per DOST-PAGASA, as yield data was available from responsible agencies i.e. PCA–coconut; SRA-sugar; BPI-banana, cacao
- The conduct of Impact Assessment on FSPs by ACPC instead of hiring an external consultant; and the use of database of IRRI for establishing farmers’ decision support system (Outcome 3) – both of these incurred savings in Project expenditures
- The creation of the position of communications associate (CA) to improve visibility in regional and national scale, replacing the position of technical assistant of Region XI;
- The inclusion of PhilRice as a technical resource person of the Project Board in order to directly be accessible on technical concerns of the Project, and, thereafter most of the responsible parties were present during most Board meetings for the same purpose;
- Exclusion of the conduct of the mid-term review; and, thereafter reallocating the budget instead to conduct additional activities in enhancing the WIBI product development, e.g. Demand Analysis-Willingness to Pay (WTP) and Premium Rate Determination – which were among the major recommendations made by the CTA;
- Changes in the Project sites outside of Twin Phoenix project sites as the latter sites are usually located in urban areas whereas the Project sites are in rural areas;
- Requirement to provide data analysis on reasons why farmers re-enrolled, and not re-enrolled in the WIBI program; and,
- With the early departure of the National Project Manager on March 2017, the appointment of a Custodian deemed sufficient considering most of the Project outputs have been accomplished.

On risk management, the Project Board was also able to address the emergence of previously identified risks, by providing mitigating measures, namely:

- (Outcome 1):
 - Use of the Crop Water Requirement approach as the new indexing method by PhilRice
- (Outcome 2):
 - Removal of premium fees for year 1 to increase demand of farmers to enroll with WIBI;
 - No distribution of WIBI during El Niño from November of 2015 to June of 2016, and the formulation of a catch-up plan through accelerating the identification of new farmer beneficiaries in the target areas, the amendment of indices and underwriting and claims process, and engagement of financial service providers, conduct of literacy workshops (a prerequisite to avail WIBI) conducted weeks prior to June 2016 cropping enrollment;
 - The issuance of Special Orders from the Office of the DA Secretary requesting Philippine Coconut Authority, Sugar Regulatory Administration, and the National Food Administration to expedite the retrieval and furnish the Project with needed data for the correlation studies; and,
 - The resumption of indexing seminars in Regions X and XI 60 days after the proclamation of Martial Law in Mindanao on May 23, 2017.
- (Project Management):
 - At the initiative of PMO, a Manual of Operations (MOP) was developed hence, should one key personnel resign or leave, the replacement will not have any difficulty in performing activities;
 - Developed a network of cooperative and eager collaborators and identified focal persons to foster multi-sector/inter-agency participation and ensured continuity of agreements and decisions among national agencies and between national and local actors to mitigate weak coordination during the initial year

3.22 Partnership Arrangements with Relevant Stakeholders Involved in the Country / Region

The Project Document was officially signed-off by the Department of Agriculture on April 28, 2014, and subsequently by the UNDP Country Office on May 28, 2014. With the National Project Coordinator only hired on October 15 of the same year, a flurry of organizational meetings with possible responsible parties were held prior to the conduct of the Inception Workshop on November 27-28, 2014. This was necessary in order to discuss partnership arrangements on the Project itself, among others.

The inception workshop was the first critical official activity as it was recognized during the technical working group organizational workshop (November 20, 2014) that the implementing parties largely composed of government agencies and offices have different mandates, hence it was necessary that all understood that they have a common agenda of participation. To make participation official, memorandum of agreements (MOAs) were signed and special orders were issued with each of the responsible parties after discussions were held on their roles and responsibilities on component outputs to be accomplished; and, the designation of their respective focal persons – all this paved the way for a smoother conduct of the approved activities of outputs.

The appointment of focal persons by the implementing partners was also a step forward in allowing the Project Board to request their attendance during board meetings as resource persons. This provided the Board direct access with implementing partners to inform the former on critical issues and concerns requiring policy support and management decisions.

Support for the WIBI Project was sealed with the signing of memorandum of agreements (MOAs) with partner banks and cooperative namely King Cooperative, Cooperative Bank of Misamis Oriental (CBMO) and Bukidnon Cooperative Bank (BCB). With the MOAs, this encouraged the borrowing farmers to access weather index-based insurance together with the loan amount. This is also linked with the effort of Agricultural Guarantee Fund Pool (AGFP) on giving preferential guarantee rates for partner banks who will have WIBI-enrolled farmers.

Potential partnership arrangements with other private sector industry groups were also initiated, among these were with the following:

- ✓ Inang Lupa Movement (ILM) initiated the discussion on integrating the weather index-based insurance (WIBI) as part of social safety net. Through this initial meeting, a strong potential for national level uptake of WIBI was presented.
- ✓ Insurance Commission (IC) - Series of meetings have been conducted to discuss and explore opportunities for collaboration in promoting the participation in weather index-based insurance. The IC organized a meeting with affiliated private insurance companies who had been engaged in implementing weather index-based insurance (with wind speed as trigger) to impart the learnings and common challenges that these companies observed. The following organizations attended the said meeting: a) CARD Pioneer Micro-insurance; b) Bankers Assurance Corporation; c) Micro-insurance Insurance Brokers Philippines; and d) Western Guaranty Corporation.
- ✓ Another effort of the WIBI Mindanao Project was to explore collaborative mechanisms with other GEF-supported projects in the Philippines. One of which is the link with the project called, "Implementation of Sustainable Land Management (SLM) practices to address land degradation and mitigate effects of drought" implemented by the Bureau of Soils and Water Management (BSWM). The collaboration will gain additional benefits for farmers covered by both projects. In addition, the technical staff of SLM Project, BSWM and farmer cooperators will gain additional knowledge; and, a potential increase of the number of adopters of SLM due to the inclusion of crop insurance for farmer cooperators.

3.23 Feedback from M&E Activities Used for Adaptive Management

The Project Document has specified that M&E activities at the Project start would include the conduct of the inception workshop to be participated by all those with assigned roles in the organization structure, crucial in building ownership of the Project results, and to develop the 2015 Annual Work Plan. Several adjustments were made in the Project Document as a result of the inception workshop (previously presented in section 3.21).

The monitoring of Project progress was also ensured through the preparation and submission of the quarterly and annual progress reports, the annual project implementation reports, the annual work and financial plan, field visit reports, and, the various reports coming from studies made by responsible parties. The Project Board met at regular intervals in order to be apprised of the progress arising from these reports, and of issues and concerns that required policy decisions. Finally, the M&E Plan was regularly

updated in Atlas to track progress of key indicators and key management actions and events including field visits and Project Board meetings. The existence of Project reports, studies, training and IEC materials facilitated the conduct of the TE with ease with high level of information available.

Several adaptive management as a result of the monitoring of Project progress from the above-mentioned reports resulted to the following courses of actions that ensured Project accomplishment within the results framework, as follows:

- i. In early 2015, project management experienced delays and to overcome these, resorted to the drafting, revising and approval of memorandum of agreements (MOAs) with the responsible parties who have previously agreed to co-implement specific components of the project.
- ii. With the MOAs all signed prior to the end of 2015, the Project Management Office (PMO) established an M&E tool or mechanism facilitated the timely and effective monitoring of the activities and target outcomes outlined in the MOA with responsible parties.
- iii. One of the activities (output 1.3.3) - Carry out a cost-benefit analysis of a reinsurance scheme under different climate and market scenarios was led by the Agricultural Credit Policy Council (ACPC) - and PMO tapped the expertise of University of the Philippines in Los Baños for actuarial study to determine the premium pricing, risk management and reinsurance capacity of PCIC.
- iv. The adaption of the recommendations of the CTA for the conduct of additional studies, namely: willingness-to-pay (WTP); actuarial study to determine the pricing of WIBI premiums; and, the reinsurance analysis.
- v. With respect to gender and development, gender specific roles and other gender dimensions were captured in the Project sites in both regions by the Impact Assessment Report on the Project, namely:
 - Addressed women's practical gender needs such as: household improvements; payouts augmented expenses on children's education, food and hired farm labor. Payouts were considered as small benefits and large-scale development on household and farming remains inconclusive.
 - Other perceived benefits such as the conduct of seminar orientations were hardly effective as it was unable to generate participation
 - No evidence yet of confronting the existing gender roles leading to the achievement of women's strategic gender needs. Women's roles in agricultural activities (production, marketing, household preparation) continued to be invisible and not implicitly recognized. Instead of women given particular focus to optimize their roles as part of the production process, they were restrained to act as proxy of their husbands in the WIBI Project activities and as homemakers.

The creation of a Communications Associate resulted in the development and dissemination of IEC materials and sharing of knowledge. Materials included news articles and newsletters, creation of the Project website and Facebook page, Approved WIBI Product Guidelines for Rice and Corn, WIBI-Mindanao Promotional Video, Project Brochure, Component Briefs, Policy and Gender Briefs. Various WIBI studies performed by responsible parties were also reproduced for distribution to intended recipients

Lastly, the Project has complied with the Project Quality Assurance Template and results of the workshop were submitted to UNDP Country Office.

3.24 Project Finance

The cumulative expenditures (general ledger) as of mid-2017 stood at US\$836,396.25 or, 79.66%% of total approved SCCF funding of US\$1.05 million. For the remaining 6 months of 2017, i.e. by Project end, the remaining amount of US\$213,603.75 was expected to be fully utilized, thereby no overall Project savings nor cost overruns was expected. A summary analysis of the fund utilization is provided below:

Project Component	Summary: 3-Year Financial Performance			Major Sources of Variance	
	Budget	Expenses	Variance	Positive	Negative
1	200,000	206,291.79	(6,291.79) -3.1%	- Contractual services-companies	- Contractual services-individual
2	550,000	536,523.43	13,476.57 +2.5%	- Contractual services-companies - Local consultants - International consultants	- Contractual services-individual - AVP, print production - Trainings, workshops, conferences
3	250,000	254,230.05	(4,230.05) -1.7%	- Trainings, workshops, conferences - Travel	- Contractual services-companies - Local consultants
4	50,000	45,141.94	4,858.06 +9.7%	- Local consultants	- Communications, AVP equipment
0	0.00	7,812.79	(7,812.79)		- Currency loss - Equipment & furniture
Overall	1,050,000.00	1,050,000.00	0.00		

From the above table, the distribution of budget amounts among Project components appeared appropriately allocated and well thought of as indicated in their respective variances ranging from 1.7% to 9.7%, either positive or negative. Analyzing closely the disbursement report for each budget line item (account code) for each component revealed the major sources of variances. This meant that the delivery mode of certain activities were altered, e.g. the use of individual consultants rather than consultancy firms (component 1), and the reprogramming of savings arising from the local and international consultancy to the production of information materials and conduct of capacity-building and planning activities (component 2), and the reverse for component 3.

All these were made possible through the exercise of adaptive management in allocating resources and responsive to changing demands in the level of intensity of planned activities. GEF-OFP even made the observation that the Project has accomplished high physical and financial ratings in terms of project delivery and management.

Strong internal financial controls were in place. Two independent (2) spot checks in 2015 and 2016 were conducted to assist UNDP evaluate the validity of accounting records that supported cash transfers from UNDP. The findings and recommendations in 2015 were complied with, namely: liquidations approved by immediate supervisors; a Communications and Admin Officer was hired; official receipts issued to UNDP for funds received from UNDP and Authorization of Fund Transfer for funds received from Central Office; and, All disbursements were issued solely with WIBI Mindanao Project checks. The 2016 spot check report also recommended (with a corresponding risk and priority rating) the following: Withholding taxes should be remitted on time (medium); Proper allocation of expenses (low); and, Provision of justification and proper supporting documents (medium) – and management responded that it will fully comply.

Further, the Project was found to be compliant on the following: Completeness of information and the timeliness of the submission of FACE reports; PCIC maintained a separate non-interest bearing current account assigned to WIBI Mindanao Project at the Land Bank of the Philippines; Procedures existed for procurement of goods and services under the government's Procurement Law R.A. 9184 and procurement guidelines as prescribed by the National Implementation Manual (NIM); Project Management Office (PMO) personnel hiring were coursed through UNDP; All disbursements and supporting documents were stamped "PAID" upon payment; and, Bookkeeper maintained a logbook in aid of monitoring the cash advances and a quarterly report submitted as part of its compliance to COA.

Requests were made with the PMO to provide the terminal evaluator with financial reports on the co-financing portion, but no such information were forwarded and received.

3.25 Monitoring and Evaluation: Design at Entry and Implementation (*)

The design of the M&E systems that were propounded in the Project Document and likewise during the inception workshop/report relied on standard UNDP requisites to include the Project Implementation

Reviews (PIR), Quarter and Annual Progress Reports (QPR & APR), the Annual Implementation Reports (AIR), the Annual Work and Financial Plan (AWFP), and the use of Atlas. In addition, the inception workshop developed the Initial Activities for 2015 to fast-track implementation and perform catch-up considering that the start of Project was moved from April 2014 to November 2014.

Since the start of Project implementation in November 2014 and until the conduct of this terminal evaluation, and in compliance with the M&E framework plan in the Project Document and agreements during the technical working group planning and subsequent inception workshops, the Project Board, Implementing Partner (PICC), the responsible parties, and the PMO subscribed to the Project Results Framework as their overall guide and followed on the implementation results even until and beyond the conduct of this evaluation.

With the hiring of the Chief Technical Adviser with M&E background instead of an M&E Officer, the implementation of the M&E Plan was subsumed within the PMO personnel in order to streamline cost and maintain budget efficiency. The Project Manager with the assistance of the other PMO personnel were tasked to prepare and submit the quarterly and annual review reports as inputs to the annual project review. The mid-term review was canceled as the terminal evaluation will likely augment the M&E requirement of the Project. Except for the conduct of the terminal evaluation, no direct budget was specified for the preparation of the regular reports.

Thus, the requisite UNDP reports highlighted the actual cumulative progress made on results on objectives, outcomes, outputs and activities – both qualitatively and/or quantitatively. This led to an early determination on progress made on impact and status of implementation of activities within each of the outputs and outcomes that allowed all key stakeholders to make adaptive measures.

Financial performance was also monitored, and recommendations arising from audits and spot checks were attended to and responded to with respect to: actions taken, when taken and the responsible persons identified to address findings; and were likewise reported in the annual progress reports.

The risks log were constantly updated and new risks identified; with the date indicated and type of risk categorized, the level of severity assessed, and countermeasures and management response/s indicated.

During implementation, the Project through the recommendations of the CTA, undertook a study on assessing the impact of the Project on poverty reduction and farmer productivity to determine the level of progress of the WIBI Project as well as underscored programmatic and process issues that need to be addressed in relation to the objective of reducing poverty in the region, especially on how payouts were used. Other studies that contributed to the Project's better understanding on poverty reduction were the willingness-to-pay and actuarial studies on premium payments.

Given the above, the Project's performance on Monitoring and Evaluation at entry and on plan implementation, and on the overall quality of M&E were all rated **Highly Satisfactory (HS)**.

3.26 UNDP and Implementing Partner Implementation / Execution, (*) Co-ordination, and Operational Issues

The Project was implemented based on the UNDP National Implementation Modality (NIM). The members of the Project Board were composed of 7 members, representing the following offices, namely:

Chairperson	Department of Agriculture, Undersecretary, Office for Special Concerns
Vice Chairperson	Philippine Crop Insurance Corporation, President
Members	Climate Change Commission (CCC); National Economic Development Authority (NEDA); Systems-Wide Climate Change Office, Department of Agriculture (SWCCO-DA); Philippine Commission on Women (PCW); and, United Nations Development Programme Country Office (UNDP-CO)

The Project worked closely with GEF Operational Focal Point (GEF-OFP), the latter being responsible for the operational aspects of GEF activities such as facilitating coordination, integration and consultation at the country level. Although not a member of the Project Board, the GEF OFP exercised oversight functions through the earlier-mentioned regular reports it received.

The conduct of Project Board meetings included the attendance of most of the responsible parties' representatives. This approach in participatory management adopted by the Board made the meetings as an avenue for all to directly report on their respective implementation accomplishments, present issues and concerns, resource need and availability – and most importantly, for all to see the Project in its totality rather than as a component of a whole.

In the last 3 years and on the Project PIRs, the Implementing Partner (PCIC), UNDP-CO, GEF-OFP, UNDP Technical Adviser, and the Project Manager has rated the Project's progress towards development objective and implementation, respectively, and these ratings are summarized below:

ROLE	Development Objective Progress			Implementation Progress		
	2015	2016	2017	2015	2016	2017
PCIC	S	S	HS	MS	S	*
UNDP-CO	S	S	HS	MS	S	HS
GEF-OFP	S	S	HS	MS	S	*
Technical Adviser	-	-	HS	MS	-	HS
Project Manager	S	S	HS	MS	S	*

• IP Rating provided by UNDP-GEF Technical Advisor and UNDP Country Office only

From the above, it is clear that there was consensus among key partners in their independent ratings on Project progress towards attaining the development objective and in its implementation. The ratings have consistently improved during the 3 years of Project life and reflects a progressive and continuous improvement through time. This was brought about by the unified understanding of the results framework, the excellent cooperation and coordination among key partners in addressing issues and concerns towards performing activities and achieving the outputs, outcomes, and objective, and the complementarity that team work attained.

In view of the foregoing, the Project was rated **Highly Satisfactory** as key partners have excellently contributed in supporting the attainment of objective during Project implementation.

3.3 Project Results

3.31 Overall Results (Attainment of Objectives) (*)

The Project results as of June 30, 2017, i.e. 6 months prior to the anticipated closure, are presented in the summary below in comparison with the Project Results Framework, incorporating thereto the agreed changes in the inception report.

Objective: Poverty reduction by strengthening the resilience of vulnerable agriculture-based rural communities in climate risk transfer mechanisms and productivity enhancement measures

Target 1: At least 2,000 families in target villages are covered by WIBI

The total of 2,413 farmer beneficiaries (54% male; 46% female) were covered under weather index-based insurance either low and excess rainfall cover, or both, for rice and corn exceeded the target by 20.65 %. However, the proportion of population covered was not indicated, and on whether the population referred to rice and/or corn farmers or, that of the entire poor agricultural sector or, the population of rice and/or corn farmers who were reached by the 20-30 kilometer radius of the PAGASA weather stations - in the target areas.

Target 2: Beneficiary farmers demonstrate 20% damage rate (i.e. 2-6% lower than average) during the normal year, i.e. when WIBI payouts are not made

No assessment on the reduction in damage rates was done for all beneficiary farmers. Rather, an impact assessment of the application of Good Agricultural Practices (GAP) on yield was conducted by the Agricultural Technical Institute whose findings suggested that GAP significantly increased the average yields for large scale farmers while they remain the same for small scale farmers (PIR-2017). Although the findings may have suggested the differing ability to adapt GAP possibly due to resource availability, and certainly the findings can only serve as the sole available value to consider in lieu of damage rate. The only limitation to the GAP assessment was the length of observation, i.e. cropping cycles, used for statistical analysis, hence the inconclusive findings.

The correlation between damage rates and WIBI payouts have not been established by the Project. The impact assessment concluded that despite the payouts being utilized to buy farm inputs during the same cropping cycle, no conclusive evidence was forwarded on effects on yield or, to a reduction in damage rates.

Outcome 1: Regulatory and fiscal incentive structures adjusted to stimulate private sector engagement in climate risk reduction and transfer for agriculture-based rural households

Target 1: The application of AGFP adjusted / expanded for FSPs to avail of preferential guarantee coverage

The new IRR, issued on September 2016, of AGFP approved for WIBI insured loans the reduction of the guarantee fee rates for banks to 0.25% (ARB borrowers) and 0.45% (rice farmers) from 0.85% - this essentially was an incentive for the private sector to promote and include WIBI as an integral feature in their financial product.

House Bill 3560 was also filed mandating PCIC to offer WIBI, provide a reinsurance facility especially for the private insurance companies that will be engaged in WIBI, and increase in capitalization from the present PhP2.0 billion to PhP10 billion. On the Senate was a bill for the development and promotion of a National Crop Insurance Program, the creation of a Risk Management Agency, and the Agriculture Risk Management Fund (ARMF). Another draft Executive Order awaited signing for the "Promotion and Development of National Index-Based Insurance Program in the Philippines". These developments on the policy front certainly will further boost the entry of more FSPs engaged in WIBI on top of the more attractive application of AGFP.

However, the Project must be able to assess the likelihood that these congressional bills will be enacted into laws, and executive orders will be issued. Without these, the up-scaling of WIBI on a national scale will be constricted as PCIC may face issues on financial feasibility of its operations especially on a continued premium subsidy policy environment.

Target 2: Preliminary assessments for covering new crops under WIBI are complete and PCIC is ready to start pilot testing

Correlation studies completed with the submission of the *Correlation Analysis of Weather Parameters and Yield of Banana, Cacao, Coconut and Sugarcane* will prepare PCIC to start a pilot study building on the findings of said study.

The outputs and activities supporting the outcome # 1 were also presented, and respective accomplishments:

Output 1.1. Availability of an incentive mechanism for private sector in WIBI provision

1.1.1 *The desk review of the existing materials from CCAP, PhilCCAP and MIPSS on lessons from index-based insurance, and WIBI in particular have been submitted and approved;*

- 1.1.2 *The National Stakeholders' Forum was successfully convened on March 14, 2017 in Davao City with over 200 visitors from various relevant agencies across the country.*
- 1.1.3 *Completion and submission of the Portfolio Assessment of WIBI Financial Service Providers (FSPs), recommending the following:*
 - *Expand WIBI risk insurance cover to include other risks*
 - *Include prolonged drought or dry spell risk for irrigated farmlands*
 - *Build or expand capacity of PAGASA to record and monitor rainfall index in regions and provinces where rice and/or corn are the main agricultural crops*
 - *Expand network of WIBI insurance underwriting agents*
 - *Cleanse and complete the Registry System for Basic Sectors in Agriculture (RSBSA) to increase number of farmers eligible for premium subsidy*
 - *Provide Regulatory, Fiscal and Financial Incentives for Banks Participation in the WIBI Program*
- 1.1.4 *Agricultural Guarantee Fund Pool (AGFP) approved the inclusion of WIBI product as part of PCIC portfolio with preferential guarantee rates from 0.85% to 0.45% for farmers and 0.25% for agrarian reform beneficiaries*
- 1.1.5 *In close coordination with Congressman Arthur Yap, the Project submitted HB 3560, and has been evaluated by the House Committee on Government Enterprises and Privatization.*

The portfolio assessment mostly contained recommendations on actions to be undertaken preparatory for the active involvement of FSPs in WIBI, and does not materially address the implications of WIBI on its portfolio. Hence, it can be concluded that the Project still has to establish a favorable business climate for FSPs to institutionalize their participation in WIBI.

Output 1.2. A guideline established for indexing process for WIBI product design

- 1.2.1 *Organized in 2015, the WIBI Development Team approved the WIBI Product Guidelines for Rice and Corn, and applied to farmer enrollees in Regions X and XI. The guidelines are regularly updated based on new technical learnings, and upon agreement by the team members. In consultation with the PCIC and PhilRice, they have identified three to four potential agencies that could be tapped for index setting*
- 1.2.2 *PhilRice introduced the concept of WIBI to potential weather indexing universities and state colleges that may be tapped for index development in the future, and organized training workshops throughout the course of the project implementation targeting the potential index-setting agencies. The following universities attended the "Rainfall Indexing Training for Weather Index-Based Insurance (WIBI) Product Development: A Seminar Workshop" organized by PhilRice: 1) Central Luzon State University; 2) Tarlac Agricultural University; 3) Nueva Ecija University of Science and Technology; and 4) Pampanga State Agricultural University.*
- 1.2.3 *The indexing modules have been drafted and submitted by PhilRice and were used for the above-mentioned training, and for roll-out.*
- 1.2.4 *The Project Management Office (PMO) together with the Focal Persons and PhilRice have initially identified 4 universities or agencies and have trained them, and continue to identify more universities and agencies that could be trained for indexing.*
- 1.2.5 *Indexing guidelines was contained in the technical report "Development of a Standard Procedure of Weather Index-Setting for Rice Crop" and has been accepted by PCIC.*
- 1.2.6 *A confirmatory study has been performed by PhilRice in the determination of crop water requirement (CWR) for other rice varieties as supplemental data for index-development*

The guidelines on index-setting for WIBI rice and corn products for training and field application have been established with initiatives taken for collaborative institutional partnerships with the academic community. Expansive and supplemental studies on CWR for other rice varieties were also performed. These developments is a positive development for setting the standards on indexing processes.

Output 1.3 Improved understanding among DA and PCIC officials about financial sustainability of WIBI

- 1.3.1 *In collaboration with PAGASA, a preliminary correlation function have been established for banana, cacao, coconut, and sugarcane between climate parameters and yield; and, on selected weather*

parameters (rainfall, temperature, relative humidity, wind speed, number of rainy days). Among these 4 crops, sugarcane has greatest possibility of indexing with rainfall as parameter, followed by banana with wind and temperature; study failed to establish correlation between coconut and weather parameters.

1.3.2 Instead of conduct of the regional survey, PAGASA has reported to the members of PMO and WIBI Development Team its initial accomplishments on correlation studies for understanding basic yields and basis risks and for verifying the weather-yield correlation

1.3.3 Instead of a cost-benefit analysis of a reinsurance scheme under different climate and market scenarios, ACPC spearheaded the study on the assessment of the state and potential of reinsurance for WIBI agricultural products, and a draft report submitted. And, recommended that:

- Reconsider PCIC mandate and explore ways to assert its relevance;
- Build the market through educational campaigns;
- Modify market to make distribution easier;
- Establish a "Catastrophe Pool" or "CatPool" for agri-reinsurance to spread risks and reduce premium rates;
- Make historical weather data available/affordable;
- Strengthen government support/policy environment for business;
- Promote parametric agricultural insurance; and,
- Conduct multi-stakeholder forum (to be led by the Insurance Commission) to thresh our expectations.

This was complemented by the study on premium setting in select regions conducted by the actuarial specialist from University of the Philippines. The report's abstract stated the findings that premium rates for the low rainfall cover ranges from 5% to 77% of the total sum assured, while for excessive rainfall cover ranges from 2% to 69%. It recommended the possibility of sharing the risks between locations and adding an investment component to the product be explored to hopefully bring the premium price down. A follow-through study found that the adjusted premiums for low rainfall cover in all regions ranges from 11% to 50%.

Another complementary study was on willingness-to-pay, which indicated that 57% of respondents were willing to pay for the WIBI premium set by UNDP at PhP1,000 per hectare, provided the maximum pay-out is at PhP20,000. In this same subset of respondents, the average, maximum WIBI premium was at PhP1,127.34 + PhP274.04 per hectare. On the other hand, among respondents who were not willing to pay the WIBI premium, the maximum premium they are willing to pay was at PhP302.29 per hectare. Significant predictors include prior experience on crop insurance, educational attainment, and sex.

1.3.4 The design of a national crop insurance database has been completed and accepted by PCIC Regional Offices X and XI.

1.3.5 The actuarial specialist presented to PCIC and project partners the results of the study, including one on adjusted premiums, during the WIBI Partners' Assembly.

1.3.6 No assessment report from the analyses on the actuarial study has been made

1.3.7 A National Stakeholders' Forum was completed on March 14, 2017 in Davao City with attendees from relevant stakeholders to share lesson from the analysis and project implementation

With the above accomplishments of targets in outcome 1 and the successful conduct of activities of each of the 3 outputs, the end-of-Project indicators for outcome 1 have been achieved. Thus, the various studies provided the baseline information and positive developments on the policy regime can provide the platform for increasing participation of the private sector in the provision of WIBI. These also established the foundation from which PCIC can expand the coverage of WIBI into more agricultural areas and into new crops beyond rice and corn. However, policy actions taken by PCIC on the recommendations of ACPC on reinsurance, on premium setting based on the actuarial studies, and on the willingness-to-pay all remained unclear during the evaluation period. The absence of decisions and subsequent policies on these will definitely hamper the planned up-scaling of WIBI.

Based on the foregoing, the rating given on the achievement of outcome 1 is **Satisfactory (S)**.

Outcome 2: Weather index-based integrated Financial Package customized and applied to strengthen climate resilience in the agriculture sector in Mindanao

Target 1: At least 2,000 families in target villages are covered by WIBI (The number of female-headed households as well as sex-disaggregated performance, where possible, will be reported)

The outputs and activities supporting the outcome # 2 are presented, and respective accomplishments:

Output 2.1. Pre-tested, customized Weather Index-Based Insurance (WIBI) delivered to at least 2,000 farming households engaged in rice and corn production

- 2.1.1 *Regular meetings were conducted by WIBI Development Team to discuss various issues (e.g. technical, management) encountered during the project implementation.*
- 2.1.2 *Through the assistance of ACPC, PCIC forged MOAs with King Cooperative, Bukidnon Cooperative Bank (BCB) and Cooperative Bank of Misamis Oriental (CBMO), signaling their commitment in promoting WIBI to their farmer clients.*
- 2.1.3 *As agreed with PAGASA, the agency became flexible to WIBI requirements on the frequency on the release of official rainfall data. Instead of every month, certified rainfall data were released by field stations every 10 days to ensure timely payouts are given to farmers.*
- 2.1.4 *PhilRice, as lead agency, established indices for rice and corn crops in identified areas in the 2 regions.*
- 2.1.5 *While no updated guideline for Integrated Financial Package (IFP) has been developed for use in advocacy, awareness raising and financial literacy activities, the WIBI Product Guidelines for Rice has been updated (Version 3.0) and translated into Tagalog and Visayan versions.*
- 2.1.6 *Meetings with FSPs were carried out (November 2015 and January 2016) to orient them on program objectives and how the banks could help the Project reach its goals. This also resulted to MOA signings between PCIC, BCB, CBMO and King Cooperative. Without an IFP, no workshops occurred for PCIC to orient FSPs on the financial products.*
- 2.1.7 *Monitoring of FSPs accomplishments were integrated into the reports submitted by the Community Organizers. ACPC coordinated with FSPs and included them as key respondents in 2 studies it submitted, namely: 1] Portfolio Assessment of WIBI FSPs (2017), and 2] Evaluation of WIBI Access on the Financial/Credit Performance of FSP Clients (Farmers) and Resilience Building of Smallholder Farmers (October 2017). The second study found that factors that influence farmers to participate in WIBI include: level of education; access to loan; and, access to an irrigation system.*

While WIBI product had been tested with more than 2,000 farmers, there remained a need to develop and finalize the IFP in order to expand the participation of more FSPs. During Project implementation, the participation of FSPs was relatively minor in terms of the proportion of farmers enrolled in the WIBI Project and most of the farmers were self-financed and supported by the local government units.

Output 2.2. Standardized WIBI literacy modules targeting both end clients and FSPs developed

All the activities of output 2.2 has been completed.

- 2.2.1 *Synthesize lesson from domestic pilots (i.e. CCAP, PhilCCAP, MIPSS and RIICE) and from literature in client outreach, literacy, awareness raising for WIBI*
- 2.2.2 *Synthesize lessons from CCAP and from literature in raising awareness for Financial Service Providers; integrate results in Output 2.3*
- 2.2.3 *Organize meetings with the RIICE project and PCIC to finalize the approach and contents of the training module*
- 2.2.4 *Carry out trainings partner FSPs (Training of Trainers). This will largely rely on existing materials developed during the CCAP and PhilCCAP pilots*
- 2.2.5 *Draft two training modules by the third year of the project implementation, taking into considerations lessons from the previous activity and Output 2.1;*
- 2.2.6 *Review among the WIBI development team and submit for a Government's endorsement*

Output 2.3. Improved understanding among regulator and FSPs about the financial implications of WIBI provision and impacts on resilience-building

- 2.3.1 PCIC has signed a MOA with partner FSPs for the latter to provide accurate reports as a data collection methodology; no costing of WIBI provision has been included.
- 2.3.2 A Portfolio Assessment of WIBI FSPs (2017) was carried out by ACPC. Included in the study is the comparative loan performance of WIBI and non-WIBI clients. The comparison revealed that:
- Past due loans ratios were lower for farmers insured with WIBI or PCIC;
 - Percentage of borrowers paid higher for PCIC compared with WIBI insured borrowers (29% vs. 11%);
 - WIBI borrowers with past due and restructured past due accounts outnumber PCIC borrowers (5.4 % vs. 2.1%); and,
 - Uninsured borrowers registered a higher past due ratio compared with WIBI insured borrowers (5.7% vs. 3.1%).
- 2.3.3 The data collection methodology for both project sites, Bukidnon and Davao, was finalized in the second quarter of 2016 between ACPC (who is the lead agency for the impact assessment study) and partner-FSPs. The Evaluation of WIBI Access on the Financial/Credit Performance of FSP Clients (Farmers) and Resilience Building of Smallholder Farmers produced 2 findings.
- One, the average income was statistically higher for respondents who are insured in the PCIC regular crop insurance than the WIBI participants.
 - Second, that receiving payout has no positive effect on the average logged income of WIBI participants.
- 2.3.4 Data collection has been carried out (every time a payout threshold is breached) focusing on the parameters such as the speed of payouts, the use of payouts, actual yields, etc; carry out data analysis. An initial report has been submitted to the PMO, the final report is being awaited.
- 2.3.5 The initial findings on FSP portfolio assessment and evaluation on WIBI access were reported during the Partners' Assembly to key stakeholders.

The MOA with FSPs has to include a determination and possible agreement on the method of application of the cost of their services. The results of the comparative assessment on the loan performance of WIBI and non-WIBI clients may require in-depth discussions between PCIC and with participating and even non-participating FSPs to identify and formulate policy support mechanisms to expand FSPs engagement with WIBI in the near future and during the up-scaling period.

For outcome 2, the rating given on the achievement of outcome 2 is **Satisfactory (S)**.

Outcome 3: Farmers and producers organizations able to analyze climate risk, and develop and implement adaptation practices to enhance productivity in agriculture

Target 1: At least 30 barangays are aware of both the slow and sudden climate risks and of the response measures

Target 2: At least 600 farmers and 20 farmer associations have been trained on resilient agricultural techniques (sex disaggregated target will be determined during the inception phase of the Project)

Output 3.1. Community-based DRRM capacity enhanced in at least 30 barangays

3.1.1 Meetings were held during the inception phase with relevant LGU officers at Barangay level and the CSCAND Agencies and lessons were presented from the baseline projects of Climate Twin Phoenix, ReBUILD and GMMA READY Projects

3.1.2 After a review and updating of existing training materials and methodology and finalize areas where a module on slow/chronic risks can be effectively integrated, the Climate Change Commission (CCC), the responsible party, shared the training modules with WIBI Mindanao. Technical content of the training were translated into Visayan and Tagalog versions.

3.1.3 Three batches of training on Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) have been completed in July and August 2016, with 72 local and barangay officials in attendance and from 21 different barangays. The target of 30 barangays was not achieved due to technical limitations and coverage of WIBI. The training course included 4 major topics on: Basics of natural hazards and climate change; Interrelationships of disasters, climate change and development;

Vulnerability and adaptation assessment; and, Mainstreaming Climate Change Adaptation/Disaster Risk Reduction in Development Planning.

The same training was provided for 2 batches of a combined 79 participants from Davao City (36) and Cagayan de Oro City (43) on April 2016 to develop a pool of trainers in Davao City consisting of FSPs, City, Provincial and Municipal Agricultural Offices of LGUs, DA-RFO Agriculture Office, and PCIC field personnel. CCC has submitted reports on these 2 activities.

- 3.1.4 *The review on the relevant contingency plan at provincial and municipality level with barangay LGU officers was completed*
- 3.1.5 *The establishment of a contingency plan at the barangay level was completed*
- 3.1.6 *Completed too were community meetings to disseminate the results from the baseline vulnerability assessment and the newly established contingency plan for each barangay*
- 3.1.7 *Mock drills and APELL (Awareness and Preparedness for Emergencies at the Local Level) Orientation were completed in first week of August 2016. Final report "Emergency Planning and Mock Drill" has been submitted by CCC.*

The feedbacks from the various DRRM trainings were most welcomed by the participants. The achievements on the vulnerability assessments and the completion of the contingency plans at the barangay level also boded well as it provided an increased awareness on the basis for the communities to understand better the premises for improving climate resiliency.

Output 3.2. Capacity of farmers and farmers associations developed to increase the resilience of agricultural production

- 3.2.1 *After initial data collection on soil types, fertilizer use, and crop variety were carried out and the Farmer's Decision Support System software, was modified based on the collected data and as appropriate. The 5-day Training-of-Trainers (TOT) was very satisfactorily (as evaluated by 59 participants, i.e. Region X-30; Region XI-29) completed by the Agricultural Training Institute (March-April 2016) for Climate Field School with Rice Crop Manager Component, and a report was submitted.*
- 3.2.2 *The final report by the Agricultural Training Institute (ATI) on the conduct of the pilot test on the use of the Decision Support System in selected plots was integrated into the report submitted in output 3.2.1 above.*
- 3.2.3 *Climate Field School areas were identified covering 14 municipalities of Regions X and XI. With a target of 600 farmers, a total of 606 farmers (45% male; 55% female) were provided trainings on climate-smart farmer's school for Region X (total: 308 participants @ 52% male; 48% female) and for Region XI (total: 2988 participants @ 39% male; 61% female). The curriculum included a session on the potential negative environmental impacts of pesticides and herbicide.*
- 3.2.4 *An impact assessment was carried out on Farmer Field School – Rice Crop Manager (RCM) on Productivity Yield of WIBI Farmers in Bukidnon, and it concluded and recommended that:*
 - *For large-scale farmers, showed that the average yield significantly increased after the RCM training compared to the farmers' usual yield; and, For small-scale farmers, the result showed that the average yield DID NOT significantly increase after the RCM training compared to the farmers' usual yield*
 - *Recommendations centered on: Whereas the data gathered was only for a single cropping season, the initial analysis of RCM impact to yield of farmers in Bukidnon is inconclusive. It is hereby recommended that after the farmers RCM Training, a multi-period close monitoring of farmers yield may be observed for several cropping seasons in a multi-year period to gain significance in data analysis.*

The UNDP Country Office has tapped the services of a consultant to carry out the impact assessment on the WIBI Mindanao Project on poverty reduction and farmer productivity, and the results are presented in section 3.37 (Impact).

The preliminary results of the impact assessment (outcome 3.2.4) is deemed inconclusive by the study itself, and a continuing study must be undertaken that takes into account the use of statistical tools and approaches, e.g. representative sample size, location, crop variety, profile of respondents, among others.

The rating on the achievement of outcome 3 is **Satisfactory (S)**.

On the achievement of progress towards the Project objective on “poverty reduction by strengthening the resilience of vulnerable agriculture-based rural communities in climate risk transfer mechanisms and productivity enhancement measures”, the Project more than achieved its target of at least 2,000 families, however, there were no indication on reduction of damage rates but rather there were indications, albeit inconclusive, that the Project has a potential to be an effective mechanism for delivering assistance to farmers to enable them to break free from poverty trap; and, that payouts resulted to the procurement of additional inputs for farming application, household expenses, and educational expenses. The implementation of the project over the last 3 years has revealed many steps are still required before the overall objective of “poverty reduction through a climate risk transfer mechanism” is achieved. Some examples of additional steps moving forward included the fact that no consensus has been made about the level of subsidy for WIBI; and, the numerous studies that were commissioned during the project mostly remained inconclusive.

From the foregoing presentation on the achievement of activities, discussions, and findings, the overall results (attainment of objectives) is given a rating of **Satisfactory (S)**.

3.32 Relevance (*)

The key criteria on Project relevance in the ToR has been defined: *“How does the Project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels?”* Further, the issue on relevance frequently becomes a question on whether the objective/s of an intervention and/or its design remain appropriate and responsive given changing circumstances.

In the Project Document, the Project was approved for funding based on UNDAF Outcome Area 4: Resilience to Disasters and Climate Change, and UNDP Strategic Plan Environment and Sustainable Development Primary Outcome: Promote Climate Change Adaptation. Under the Country Programme/UNDAF Outcome 4, the successful outcomes are on: Adaptive capacities of vulnerable communities and ecosystems are strengthened to be resilient to threats, shocks, disasters, and climate change; and, on expected CPAP Output: Increased capacities of key duty-bearers and claimholders to lead and support a sustainable national anticipatory climate change adaptation process.

The Project’s strategic objective were in harmony with the target indicators. The target indicators are:

- Percentage of population of at least 2,000 families in target areas covered by weather index-based insurance mechanism;
- Demonstrated reduced damage rate of between 2% to 6% of national average to 20% in rice farming;
- Availability of an incentive mechanism for private sector in WIBI provision through adjustment in AGFP guarantee coverage;
- PCIC’s readiness in expanding WIBI to new crops beyond rice and corn; and,
- Number of community groups trained in climate change risk reduction.

The Project also addressed the need for long-term solutions faced by small-scale farmers to respond to systemic changes in the climate system. Identified key barriers were similarly addressed (3.31 - Overall Results) in order to provide the opportunity to a better understanding and appreciation of the index-based agricultural insurance industry in the country. The Project was able to produce numerous studies on index-setting, premium setting, willingness-to-pay, portfolio assessment of FSPs, among others that were herein earlier presented.

More importantly, Project relevance can be gleaned on the rice farmers as target groups as this has implications on food security for the country. Today, the country continues to rely on rice importation to

augment its domestic rice production. Tackling risk transfer or risk reduction mechanism for agriculture is necessary as espoused in the NCCAP. Based on the regional assessments done by PAGASA and as presented in the Fourth Assessment Report, the choice of the Project locations was relevant to the overall objective. The dry season in Region 10 was expected to be drier, and the wet season more wetter. In Region XI, the wet season was expected to receive higher rainfall before 2020 and 2050, while the summer season was expected to face a significant reduction in rainfall.

From the foregoing and based on the interviews, discussions and observations during the field missions, the Project is considered as highly **relevant (R)**; and, there were no other circumstances during its implementation that would have reduced its relevance.

3.33 Effectiveness & Efficiency (*)

Effectiveness pertained to the extent to which the Project objective has been achieved, or how likely it is to be achieved given that this terminal evaluation has excluded, for the most part, the Project period from July 1 to December 31, 2017. Given the preceding extensive presentation (3.31–Overall Results), the Project's **effectiveness is** given the rating of **Highly Satisfactory (HS)**.

This rating was given despite the fact that the Integrated Financial Package was not developed. However, alternative studies of equal importance were conducted, namely: Willingness-to-Pay; Actuarial Studies on Premium Pricing; Impact Assessment of Farmer Field School-Rice Crop Manager Training on the Productivity (Yield); Impact Assessment on Poverty Reduction and Farmer Productivity; and, Determination of Crop Water Requirement.

On the assessment of Project efficiency, this referred to the extent implementation was performed efficiently and in line with international and national norms and standards; and, extent to which results have been delivered at the least cost.

The extension of the Project to 38 months (November 2014 to December 2017) from the original 36 months did not affect at all the overall funding requirement. Throughout Project implementation, there were no major issues centering on the need for additional funding support. On the other hand, projected savings arising from the removal of an activity, e.g. regional survey, were used to fund replacement activities, e.g. willingness-to-pay, among others. On financial management, audit findings were mostly administrative in nature, e.g. incomplete supporting documents, and were satisfactorily complied within the allowable time frame.

In terms of the financial performance of the project, the delivery was about \$866,000 or 80% of the total budget as of June 30, 2017 or, 6 months prior to the official Project end-date. The remaining 20% financial delivery was programed to be fully utilized by Project closing and will cover the scheduled activities for 2017 including the terminal evaluation and concluding conference. It assumed no cost overruns, nor for any possible savings. Given this, and with the Project remaining on track in terms of project implementation and delivering substantive outputs despite its short (3 years) implementation period, with satisfactory and high quality results as reflected in the PIRs, Project **efficiency** should be **Highly Satisfactory (HS)**.

3.34 Country Ownership

On country ownership, relevance of the Project to national development and environmental agendas, recipient country commitment, and regional and international agreements remained congruent, aligned and applicable throughout Project implementation.

The Philippine Development Plan (2017-2022) recognizes in Chapter 20: Ensuring Ecological Integrity, Clean and Healthy Environment “the impact of climate extremes and variability are felt with increased intensity and frequency. With CC, Philippines is already experiencing increased intensity and frequency of extreme weather events. Adapting to CC, which now defines the new normal, and mitigating its impact, is a big challenge and efforts have to be heightened to a level that would safeguard not only lives but also

economic gains". In the same chapter, it added "Private sector engagement in ENR (environment and natural resources) management, including investment in CC and DRRM actions, is limited. The potential of private sector investing in ENR management, including risk transfer mechanisms, remains largely untapped due to the lack of a clear mechanism to guide the private sector in complementing government efforts".

Aside from the continuing implementation of NCCAP (2011-2028) of the seven strategic priorities, with food security prominently mentioned, several bills are pending with the Philippine Senate and House of Representatives related to WIBI that seeks to strengthen crop insurance, institutionalize agricultural risk management; and, another pending executive action on promoting a national index-based insurance program. The Government therefore continues to remain in the forefront on disaster risk-reduction and climate change adaptation efforts.

The composition of the Project Board is proof that country ownership remained strong in the Project. The Board Chairperson is the Undersecretary on Special Concerns of the Department of Agriculture, and the Vice Chairperson is the President of Philippine Crop Insurance Corporation. The remaining 5 members represented the Climate Change Commission, Systems-Wide Climate Change Office (Department of Agriculture), National Economic Development Authority, National Economic Development Authority, and United Nations Development Programme Country Office.

3.35 Mainstreaming

The mainstreaming of the Project and its results framework to relevant Government strategies were presented in the preceding sections of 3.32 and 3.34. The UNDP Guidance for Terminal Evaluation calls for assessing the extent UNDP supported GEF-financed projects are key elements in UNDP country programming. The objectives and outcomes of the Project were aligned with UNDP country programme strategies as well as with GEF-required global environmental benefits as outlined in global environmental conventions.

The Project has successfully mainstreamed into other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and women's empowerment. The UNDAF for the Philippines "Supporting inclusive, sustainable and resilient development" (2012-2018) has stated that "Moving the country to a higher and robust growth path, sharpening the response to poverty reduction to growth, ensuring food security, and building resilience toward natural disasters and climate change will require strong and stable economic fundamentals and political institutions". In outcome 4 (Resilience toward disasters and climate change), it emphasizes the aim "to ensure community and livelihood resiliency by supporting the incorporation of disaster-risk reduction and management, climate change adaptation, and ENR conservation measures into community, sectoral and national plans" .

The UNDP Country Programme Document (CPD) contributes to UNDAF. CPD (2012-2018) stated that "programmes are to be focused on women's empowerment, and resilience to disasters and climate change, among others. The overall approach to strengthen capacities of local governments and communities in democratic governance, poverty, disparity and vulnerability reduction, sustainable management of environment and natural resources, and climate change adaptation and disaster risk management, while ensuring that human rights and gender are integrated into local policies, processes, programmes and budgets. Complementary actions at the national and policy levels will be undertaken to contribute to a more conducive enabling environment for local interventions".

The presence of UNDP Country Office representative in Board meetings revealed strong interest of UNDP to follow up on Project implementation as part of its programming cycle. The establishment of a Project Management Office with monitoring and evaluation as well as strategic planning, reporting and communications functions underlined the importance given.

Concerning gender aspects, the Project has regularly sent reports for incorporation in the UNDP-GEF Annual Performance Report, UNDP-GEF Annual Gender Report, reporting to the UNDP Gender Steering and Implementation Committee, among others.

Risk transfer mechanism such as WIBI has been mainstreamed into the Philippine Development Plan (PDP 2017-2020). In chapter 20 "Ensuring Ecological Integrity, Clean and Healthy Environment", specifically subsector outcome 3 (Adaptive capacities and resilience of ecosystems increased) includes the strategy of: *Maximizing access to CC and DRRM financing and risk transfer mechanisms. Further, this strategy includes that information on available international and national CC and DRRM financing facilities will be widely disseminated. Technical assistance to stakeholders, particularly LGUs will be provided to comply with the requirements of such facilities. On risk transfer mechanism, CC considerations will be incorporated in the design of financing packages and insurance products.*

The Project has also succeeded in mainstreaming risk transfer in the policy front. For PCIC, the congressional bill pending before the House and representatives, effectively seeks the expansion of its mandate to include reinsurance for private insurance companies that will be engaged in WIBI and the increase in capitalization. In the Senate, bills for the development and promotion of a National Crop Insurance Program, the creation of a Risk Management Agency, and the Agriculture Risk Management Fund (ARMF) have been proposed. The draft executive orders are designed to promote and develop a national index-based insurance program.

3.36 Sustainability (*)

When assessing the sustainability of UNDP supported GEF financed projects, UNDP conforms to the general guidance set out in the GEF M&E policy and GEF Guidelines, which stipulates that all terminal evaluations should at a minimum assess "the likelihood of sustainability of outcomes at project termination, and provide a rating for this". Sustainability is generally the likelihood of continued benefits after the project ends. Consequently, the assessment of sustainability considers the risks that are likely to affect the continuation of project outcomes.

On financial risks, the implementing partner and responsible parties were all government agencies and offices whose participation in the Project was a consequence of their respective mandates. At the local level, the LGUs have their mandates on disaster risk reduction, agricultural development, and poverty reduction, among others.

The WTP study have generally concluded that the WIBI premium rate farmers are willing to pay have to remain subsidized, although the proportion of those who are willing to pay exceeds those who are not willing, with the former paying at least PhP853.30 and the latter PhP302.29 only for a weather index-based insurance coverage of PhP20,000 per hectare. The preliminary portfolio assessment of WIBI FSPs have determined that payouts represent almost three-quarters (73.5%) of total premiums subsidized. The roll-out of WIBI into more rice and corn production areas in the country could put a strain on PCIC capitalization, and the increased capitalization once HB 3560 is enacted may be mostly expended on premium subsidies. The potential of agricultural reinsurance has been assessed and do-able recommendations have focused on encouraging insurance and reinsurance companies to venture and expand their portfolio.

PCIC still have to develop an integrated financial package and this require additional resources and more networking with implementing partners, conduct of new follow-through initiatives on most of studies that the Project have initiated.

With all these, the Project financial sustainability is considered **Moderately Likely (ML)**.

On socio-economic risks, the political arena has shown huge support with the pending bills and executive order, and the retention of most key officers of the implementing partner and responsible parties whose respective governing decision-making bodies have been supportive in promoting WIBI through increasing premium subsidies, and reducing guarantee fees, among others. The low level of awareness and

understanding especially of farmers on WIBI and their inability to fully adhere to recommended crop management still require continuing literacy trainings and monitoring of results. Appropriate government agencies are continuing to provide these mandated services, and there are no indications during the Project implementation that there would be a reversal nor a diminution in the future. Thus, at the outcome level on **socio-economic** sustainability is **Likely (L)**.

On institutional framework and governance risks, the partnership arrangements has changed little during Project implementation. The legal frameworks, policies, and governance structures and processes within which the Project partners, parties, and stakeholders operates are unlikely to change at the national and local levels, thus the benefits to agricultural communities would remain in the pursuit of their respective mandates. The required technical knowhow contributory to a better understanding of WIBI has been developed from the numerous studies the Project has initiated but would require further refinements and more definitive plans of actions to carry out the recommendations that would prove more valuable in rolling-out WIBI.

Moreover, the Project Document has been clear that the Project design has included outputs whose specific objectives are to strengthen the institutional capacity within the WIBI sector towards sustaining WIBI provision. On index setting, the Project has succeeded in its process and developed standard guidelines of rice and corn and other crops, and started capacity building trainings. And, built a knowledge body of literacy and awareness modules for FSPs and farmers alike.

The WIBI Mindanao Project has institutionalized a collaborative effort among government agencies and offices at the national level and local government units that resulted to the delivery of outputs contributory to the attainment of the outcomes and to the overall objective. There were no indications that the absence of this collaborative effort would have resulted in a separate yet collective attainment of similar outcomes that the Project has achieved. There is thus the need to consider the institutionalization of a similar collaboration that may take the creation of an organization similar to an inter-department composite agency that brings together the Project's implementing partner and responsible parties to further pursue the gains of the Project.

Hence, the sustainability of institutional framework and governance is **Moderately Likely (ML)**.

On environmental risks, basis risks remained as farmers have continually expressed their dismay on the matter of payouts. Another concern is that climate change variability and intensity remains, and the demand for WIBI's continuity may have become more pronounced today than during Project start. Even when WIBI has ventured into rice-irrigated areas, the lack of water (due to droughts) and the dismal state of irrigation facilities can pose a restraint in the roll-out of WIBI. These cannot be entirely neglected, but some are manageable, e.g. irrigation facilities. As the Project has operated under these conditions and have resulted in successfully addressing the barriers to a large extent throughout its implementation, the rating on **environmental** sustainability is **Likely (L)**.

From the above discussions, the overall rating on sustainability is therefore Moderately Likely (ML). The WIBI Mindanao Project can be sustainably expanded to cover more regions and additional crops, using the design and implementation approaches employed. Thus, it is important that the Philippine government and UNDP has began the task of initiating a follow-up design on the up-scaling of this Project.

3.37 Impact

During the early part of 2017, an Impact Assessment of WIBI Mindanao Project on Poverty Reduction and Farmer Productivity in the two (2) regions was conducted to "determine the level of progress of the WIBI Project as well as underscore programmatic and process issues that need to be addressed in relation to the objective of reducing poverty in the region". The findings on basic knowledge on WIBI included:

- 1] A low knowledge level on WIBI that is mostly acquired from DA technicians and orientation trainings;
- 2] Lack of emphasis in the preferential targeting of women;
- 3] Language barrier (use of English rather than the local dialect) which resulted to difficulty in understanding the lectures and could have contributed to the low level of knowledge;

- 4] Absence of a feedback mechanism; and,
- 5] Different recruitment process applied between regions of farmers.

Findings on farmer benefits suggested that receipt and non-receipt of payouts remained unclear. However, payouts brought benefits as it was used to procure inputs, resulting to better yields and quality of palay; and, to augment household income for food, education, and even to settle prior debts. The latter use of payouts addressed gender needs as women typically take care of household related expenditures.

The main singular conclusion stated that “a number of stakeholders have already expressed belief that the project has a potential to be an effective mechanism for delivering assistance to farmers to enable them to break free from poverty trap”. Furthermore, the assessment recommendations included the following:

- a] Improve program design, i.e. allow enrollment of areas exceeding 1 hectare, transparent criteria in selection of WIBI enrollees;
- b] Enhance information dissemination through optimum use of media at the grassroots level to level-off farmers’ expectations;
- c] Incorporate gender awareness and perspective at the initial stages;
- d] Increased visibility of WIBI personnel at the agricultural areas to allow access for consultations; and,
- e] Inclusion of other parametric risks notably drought regardless of whether the area is rain-fed or irrigated.

Despite the above findings and conclusions, all these can be considered as preliminary and require a more extensive research methodology to address certain limitations on the assessment process. The assessment recognized that there were limitations on sample size and representativeness, effects of interventions due to the short implementation yet of the Project, attribution that hampered causality of intervention to outcomes, and limited coverage to just 2 cropping cycles.

The assessment, though preliminary, had discovered the presence of economic benefits as a result of payouts leading to improved agricultural practices and on yields and, social upliftment on better opportunity to education, better nutrition, and reduction of debt. All these mean that the Project has made progress towards its objective of reducing poverty through risk transfer mechanism and productivity enhancement measures.

From the above presentations and discussions, the summary of evaluation ratings are presented below:

Summary of Evaluation Ratings			
1. Monitoring and Evaluation	Rating	3. IA, RP& PMO Execution	Rating
M&E design at entry	HS	Quality of UNDP Implementation	HS
M&E Plan Implementation	HS	Quality of Execution-Executing Agency	HS
Overall Quality of M&E	HS	Overall Quality of Implementation / Execution	HS
2. Assessment of Outcomes	Rating	4. Sustainability	Rating
Relevance	R	Financial resources	ML
Effectiveness	HS	Socio-economic	L
Efficiency	HS	Institutional framework and governance	ML
Overall results (attainment of objectives)	S	Environmental	L
		Overall likelihood of sustainability	ML

4. Conclusions, Recommendations, and Lessons

4.1 Corrective Actions for the Design, Implementation, Monitoring and Evaluation of the Project

Several corrective actions are being proffered in this TE and as presented in the previous section 3, although these could have been made part of a mid-term evaluation should one had been conducted. Nevertheless, the following can be considered for prospective and similar projects in the future.

Project Design

One of the intended design feature of the WIBI product was is bundling into existing credit programs. However, the non-development of the integrated financial package during the Project term, including other bundling options with potential sources of agricultural credit that is both accessible and affordable of rolling out WIBI resulted to a situation wherein Project's WIBI actual enrollees were composed mostly of 'self-financed' farmers and supported by their respective local governments. The results of the portfolio assessment of FSPs in relation to WIBI may have been more conclusive had there been a larger number of formal WIBI borrowers.

The use of indicators should have assessed the availability of secondary data or, ability and ease to generate primary data. These factors should have been determined during the formulation of any indicator, and the use of damage rates would have informed the designers that this is a difficult and complex undertaking and would require huge levels of resources. Being the indicator of the objective, an activity for this should have been included.

The use of repetitive end-of-project indicators, i.e. *"At least 2,000 families in target villages are covered by WIBI"* for both the Project objective and outcome 2 *"Weather index-based integrated Financial Package customized and applied to strengthen climate resilience in the agriculture sector in Mindanao"*. Since outcome 2 referred to an integrated financial package, the end Project indicator should have focused on an indicator that refer to the number of farmers/families able to avail of the financial package.

The Project was able to largely but partially addressed the identified barriers. PhilRice has been able to establish indices for rice and corn. For rice, determination of crop water requirement (CWR) for other rice varieties as supplemental data for index-development. Studies, though inconclusive yet, on index for other high value crops, i.e. banana, cane sugar, coconut and cacao have been done too. Understanding of WIBI products have been raised with the development of standardized literacy and awareness raising materials. WIBI have been packaged and been tested into FSPs' loan products although with a limited proportion of enrollees, its impact on the long-term portfolio performance of FSPs remained undetermined. The management of basis risks still require data on the level of losses of farmers that can be correlated to the level of payouts provided by the Project.

On stakeholders participation, the official participation of various government agencies was indeed a difficult task due to differing mandates. A multi-stakeholder agreement in which all parties simultaneously formally declared their official commitment in a signing ceremony could have been a culminating activity during the official launch of the Project.

Project Implementation The fact that the Project was able to finish almost all activities in the initial default design and in fact added several studies found to be wanting during the course of the implementation was indeed laudable and reflected excellent adaptive management. Moreover, the exclusion of several provinces notably Camiguin and Misamis was correct as it failed to adhere to the guidelines that if rainfall data missing is more than 20% of the total 30-year historical values, WIBI will not be offered due to increased probability of basis risk and hence financial risk to PCIC. Region X did not have a 4th cropping cycle due some technical interpretation of the guidelines, hence enrolment was put on abeyance at that time. In addition, they already exceeded the Php 2M premium subsidy allocated for each region (total of P4M for two regions) because they accepted enrollments of corn farmers which required higher premium.

The generation of data on farmers, for both enrollees and non-enrollees and for repeat and non-repeat enrollees, would have enriched the analysis of the target end-beneficiaries of the Project – although this has been an approved undertaking during the course of implementation. This could be one major activity accomplishment in outcome 2. Likewise, activities on gender analysis and mainstreaming could have

included formal assessments on aspects such as the division of labor, control of resources and benefits, mapping of the 24-hour typical day activity, and accessibility and level of benefits with economic institutions (e.g. banks, trainings, etc.).

Project M & E The Project has generated all the required UNDP and GEF mandated reports using the templates. However, these reports provided for a general overview of accomplishments during Project implementation. The quarter progress report (QPR) can be more informative if the status of the preceding quarter was indicated; and, the status of an activity also indicated another color code for a delayed start even if such is already on-going as this continuously prompt management that a catch-up is needed. The delayed status code remained even if completion has been achieved but still beyond the planned milestone date.

For the conduct of studies and assessment, more than the status, additional information needed to be included such as actions taken on the findings, conclusions and recommendations for this could have provided management with crucial inputs for decision-making purposes.

The Project needed to go beyond these templates (i.e. quarterly and annual progress reports, the annual project implementation reports, the annual work and financial plan) and generate templates for the internal use of the Project Board and the PMO with respect to the deliverables of responsible parties and contracted parties, and for specific activities. For instance, the entire set of activities for each of the 3 outcomes could be plotted in a PERT-CPM format to inform all concerned about the status of the entire Project, and prove worthwhile in the decision-making process. Nevertheless, the Project Management Office did fully comply with the prescribed reporting templates.

4.2 Actions to Follow-up or, Reinforce Initial Benefits from the Project

The numerous assessment studies that the Project undertook reflected the need for pursuing the initial findings, conclusions and recommendations it has generated in order to optimize Project benefits. The WIBI Mindanao Project might have been introduced, but understanding of the risk transfer mechanism and climate resiliency with farmers remain low. This could be improved with the timely dissemination and distribution **to the farmers too** of information materials (in the local dialect) for a better understanding and application. Simple yet sturdy print materials with illustrations has proven effective especially with the rural poor agricultural sector.

On the assessment studies made, and a cursory review of its findings, conclusions and recommendations strongly suggest for the most part that additional concluding activities and/or issuance of new/revised guidelines are needed prior to the roll out of WIBI on a larger scale. Reference is made on the portfolio assessment on FSPs; index development; crop water requirement; expansion and establish conclusive correlation between weather and yield for the 4 initial crops (*banana, cacao, coconut, and sugarcane*) and for new identified additional crops; reinsurance; willing-to-pay; premium setting; payout; impact of WIBI on yield; and impact of WIBI on poverty reduction and farmer productivity with gender perspective.

All of these assessments have a degree of contribution for the formulation and implementation of the integrated financial package that PCIC needed for expanding and up-scaling the WIBI product.

In terms of PAGASA synoptic stations, the existence of more than 60 stations and the planned addition of another 70 stations will widen the potential coverage of WIBI that is critical in its expansion and rollout. The development of a new WIBI product design as an integrated financial product of financial service providers will require experts' advice and synthesis of four (4) major reports, namely: final premium rate/single and group rate; financial risk assessment (sans reinsurance); market demand; and, technical advice on the simulation studies done on other indices computed nationwide).

The capability of PCIC in actuarial and design of insurance products remains dependent on external experts' advice. The fact remains that weather index based insurance is still not a product or service of PCIC. Organizational capabilities of PCIC have to expand through the development and establishment of actuarial and product development units. When such capabilities are competently achieved can prospects

for PCIC to provide this type of insurance provision be realized. PCIC has to continue its collaborative institutional linkages with PhilRice and PAGASA, and further pursue initiatives with the private sector for their involvement as conduits for WIBI products in reinsurance. PhilRice have established institutional linkages with the academe and is further expanding these linkages with other members of the academic community. LGUs have been found to provide financing to farmers and this must be explored for potential linkages on WIBI products.

4.3 Proposals for Future Directions Underlining Main Objectives

The roll out of WIBI in the future would have to include a more intensified and effective awareness raising of both the transfer mechanism and climate resiliency of farmers and communities including other crops beyond rice and corn. With the low participation level of FSPs, the successor WIBI project needs to tap existing, accessible and affordable government credit programs e.g. Production Loan Easy Access (PLEA) as partners.

The development of weather indices and correlation factors for rice and corn and for additional crops, with standard features such as the more frequent release of weather parameters (other than rainfall) from the present 10-day intervals and for more locations will negate the effects of basis risks. This therefore would result to an improved commercial acceptability of WIBI for its future roll out.

The determination of the universe of target farmer-beneficiaries will have to be largely dependent on the locations and coverage of PAGASA automatic weather stations and non-PAGASA weather gauges found acceptable and compliant, the crops for inclusion, availability of government credit programs, among others has been performed.

The development of the integrated financial package can be location and crop specific and to ensure success, institutional arrangements with LGUs, local financial retailers, and other key value chain players should be established. Likewise, the willing-to-pay factor can be addressed through a decreasing proportion of government subsidies, i.e. increasing payment level by the insurance beneficiary.

All these have to reach an identified milestone reflecting a certain pre-determined level of accomplishment or success, then the WIBI roll out will include the entry of insurance and reinsurance businesses into WIBI. And, the increasing involvement of FSPs. The economic feasibility of WIBI will be one of the major success indicators.

4.4 Best and Worst Practices in Addressing Issues Relating to Relevance, Performance and Success

Relevance One of the best unintended results on the policy dimension is the support exhibited by Congress and the Executive branch in WIBI expansion. Although the likelihood of succeeding in acquiring these policy support may be assumed as low due to its political nature, a more intense lobbying effort have to be applied. However, the pilot WIBI Project did achieve its objectives and outcomes despite its non-passage, the roll out of WIBI has to take into serious consideration a worse-case scenario in case of the absence of such policy support.

WIBI, to a large extent, has proven its validity in the face of continuing weather variability and changing intensities despite some setbacks in setting a high confidence level in addressing basis risks.

Performance The adaptability of management in piloting the WIBI Project is more pronounced in agreeing to include irrigated areas and 'self-financed' farmers as a result of the lukewarm response from FSPs as their main concern was that the WIBI product has not been finalized at the time the Project intended to use them as conduits to reach out for borrowing farmers. The Project was fortunate enough for the presence of support coming from the LGUs, and the existence of RSBSA that resulted in the Project attaining the targeted 2,000 households.

The results framework also should have indicated the minimum number of cropping cycles that the Project intends to accomplish although it was clear that this was premised on the level of payout and availability of subsidized premiums that PCIC has allocated. Thus, the termination of WIBI coverage during the entire 2017 (Region X) and second half of 2017 (Region XI) was supplemented with an impact assessment designed to be self-rated in nature among WIBI farmers so it could provide indications on the attainment of the objective on damage rates, and economic benefits.

Success The Project was designed to lay the foundation for the roll out of WIBI in the future. However the numerous assessments and studies that have been conducted presupposes that PMO and PCIC and responsible parties alike, have to perform plans of actions in and management decisions have to be made on the recommendations put forth by these assessments and studies. For instance, the WTP and actuarial studies have laid the groundwork for the finalization contracts and guidelines in the roll-out of WIBI roll out products.

Lessons Learned

The determination of a target indicator such as that of 2,000 families and/or WIBI enrollees can be defined categorically as to whether this are all financed by FSPs or a combination of FSPs and self-financed farmers. This could have enriched the analysis on the correlation between type and source of financing and payouts received. The use of indicators should consider its availability as a secondary data, and if determined that it is not readily available, then a prior determination of what resources are needed to generate the data can provide a decision point on its appropriate applicability.

Sealing partnerships and collaborative efforts among government agencies through formal instruments such as a memorandum of agreement (MOA) ensure participation during Project implementation, and Project ownership.

The completion of activities in Project outputs, especially if these pertains to the conduct of studies and assessments, must consider further actions needed to be pursued on the findings, conclusions and recommendations that could prove more beneficial to the attainment of outcomes and objective/s.

Recognition that the Project still have gaps in ,mainstreaming gender perspectives with the absence of gender analysis on the roles of women and their participation in decision-making in agricultural activities.