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CROSS SECTORAL STRATEGIES FOR CLIMATE CHANGE AND DISASTER RISK REDUCTION (CADRE) IN INDONESIA

FINAL EVALUATION REPORT

Report Prepared By :

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Henri Sitorus, PhD.

With Assistance of Sugi Astuti

Abbreviations

APBD	<i>Anggaran Pengeluaran dan Belanja Daerah</i> , District/Province Budget
BAKORNAS PB	<i>Badan Koordinasi Penanggulangan Bencana</i> , Coordinating body for disaster response (Prior to BNPB)
BAPPEDA	Planning and Development Board
BPBD	<i>Badan Penanggulangan Bencana Daerah</i> / Regional Disaster Management Agency
BKP	<i>Badan Ketahanan Pangan</i> /Food Security Body
BNPB	Badan National PenanggulanganBencana / National Disaster Management Agency
BPS	<i>Biro Pusat Statistik</i> /Centre Bureau of Statistics
CADRE	Climate Change Adaptation and Disaster Resilience
CA	Cooperative Agreement
CCA	Climate Change Adaptation
CBDRM	Community Based Disaster Risk Management
DAC	Development Assistance Committee of the OECD
DNPI	<i>Dewan Nasional Perubahan Iklim</i> /National Council for Climate Changes
DRR	Disaster Risk Reduction
DRV	Disaster Resilient Village
CDRRC	Community Disaster Risk Reduction Committee
FFS	Field Farmers School
GOI	the Government of Indonesia
Ha	Hectare
HH	Household
HVCA	Hazard, Vulnerability and Capacity Assessment
KabaHill	Local NGO partner
Km	Kilometer
LG	Local Government
LGU	Local Government Unit
Mw	Unit of earthquake measure known as Moment Magnitude (Symbolized as Mw). The moment magnitude scale is the one used by seismologists to measure large earthquakes.
Musrenbangdes	<i>Musyawarah Rencana Pembangunan Desa</i> , Village Development Planning
NGO	Non-Governmental Organization
IPTT	Indicator Performance Tracking Table
PCI	Project Concern International
Perda	<i>Peraturan Daerah</i> /Local Government Regulation
PNPM	<i>Program Nasional Pemberdayaan Masyarakat</i> / National Program for Community Empowerment
TOT	Training of trainers

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A. EXECUTIVE SUMMARY

In September 2011, Project Concern International began implementing the Cross Sectoral Strategies for Climate Change and Disaster Risk Reduction (CADRE) project in Indonesia, in response to the need to strengthen resilience of vulnerable rural populations in Bengkulu province to disaster and climate change. The U.S. Agency for International Development funded the CADRE project as a strategic collaboration between PCI, KabaHill Centre, universities, consultants, local communities and government to address the needs of 3 districts, 30 communities and an estimated 35,000 people in Bengkulu province – one of the most disaster prone provinces in the country. Specifically, the project sought to strengthen resilience of vulnerable rural populations in Bengkulu province to disaster and climate change.

Circle Indonesia was contracted by PCI to conduct the final evaluation of the CADRE project. The main objectives of the final evaluation included assessing the achievement of the program's goal to strengthen resilience of rural communities to natural disasters in three districts (Bengkulu City, North Bengkulu and Kaur) in Bengkulu province, as well as the effectiveness of the program design in achieving the project goal.

Key Findings:

IR1: Strengthen Institutional Capacity for Disaster Risk Management and Climate Change Adaption

CADRE had a goal of forming thirty Community Disaster Risk Reduction Committees (CDRRCs). Through the life of the project, 32 CDRRCs were formed in three districts (2 dissolved before the end of the project), all of which completed the core activities of conducting DRR mapping assessments and developing comprehensive DRR action plans. Forty-six percent of those community DRR planning exercises were conducted with BPBD participation, an increase from 0% at baseline, demonstrating the linkages that CADRE helped build between community groups and government. In terms of strengthening institutional capacity at the government level, all three district BPBDs created strategic plans and at least 50% of the BPBD staff are trained in community-based disaster risk management. As a result of this capacity building, the final evaluation survey found that 64% of respondents in the target area believe that household vulnerability has decreased compared to three years ago

IR2: Reduced Exposure and Vulnerability through Adaptive Livelihoods

This final evaluation finds substantial evidence that CADRE was successful in building adaptive livelihoods as a way to build resilience to climate change related vulnerability. The final survey found that 68.1% of respondents in the target project area have made changes to their livelihood to reduce risk to disaster and climate change, compared to a baseline of 9.2% and well exceeding the target of 50%. In addition, 52%¹ of the population practices adaptive livelihoods. To achieve these results, 49 adaptive livelihood groups were formed, for which 691 farmers were trained in adaptive farming techniques. Even more remarkably, 717 farmers accessed seed capital for adaptive livelihoods, and a total of \$56,996 was leveraged for adaptive livelihoods to match project funds

¹ +/- 3% margin of error

IR3: Improve Disaster Preparedness through Knowledge and Education

CADRE also focused on disaster preparedness to build resilient communities. Disaster simulation exercises were conducted each year for three years in 77 villages, 48% of which were conducted with Government of Indonesia (BPBD) participation. The final evaluation survey found that 99% of respondents reported having at least one specific planned response in the event of a disaster, compared to baselines of 21% (Bengkulu City), 22% (North Bengkulu) and 61% (Kaur). In addition, 88% of households reported that they perceived reduced vulnerability to shocks as a result of engagement in program activities, compared to 17.4% at baseline and a target of 75%

Cross Cutting Objective: Gender Empowerment

CADRE embedded gender empowerment into all activities to build resilient communities in the three target districts. Overall, 39% of CDRRC members in target communities were female, exceeding the target of 30%. In addition, 73% of livelihood group members were female, exceeding the target of 50%, with women also comprising 94% of lead farmers. Finally, 100% of DRR assessments and a resulting 100% of DRR community plans incorporated vulnerabilities specific to women.

B. EVALUATION OBJECTIVE AND METHODOLOGY

Evaluation Objectives

This evaluation addresses the achievement of the program's goal to strengthen resilience of rural communities to natural disasters in three districts (Bengkulu City, North Bengkulu and Kaur) in Bengkulu province, and the effectiveness of the program design in achieving the program goal. More specifically, the evaluation seeks answer to the specific evaluation objectives, as shown by Table 1.

Table 1: Evaluation Specific Objectives

No.	Specific Objectives	Aspect assessed
1.	Program Design	• Program relevance to targeted beneficiaries • Program replicability and scalability
2.	Program Coverage	• Identification of positive impact on DRR and CCA and project components that have no/limited impact
3.	Program Outcomes and Impact	• Program achievement toward key performance indicators • Program impact on institutional capacity for disaster and climate change management • Program impact on reduced exposure and vulnerability to disaster as well as disaster preparedness practices • Program impact on adaptive livelihoods • Program impact on women beneficiaries to address gender-specific needs to climate changes
4.	Sustainability	• Independence of DRR, livelihoods groups and organic farming groups • Linkage to available institutions and services for sustainability • Sustainable livelihoods impact

The evaluation was guided by the specific questions as indicated in the evaluation terms of references (TOR) which can be found as Annex 1.

Evaluation Methodology

The evaluation employed mix-research methods (qualitative and quantitative) to achieve the above objectives. The fieldwork for the evaluation was organized in February 2015.

In-depth interviews

The consultant organized in-depth semi-structured interviews with the following agencies:

- (1) Regional Board for Disaster Management (BPBD);
- (2) Agriculture Department/Office/Dinas;
- (3) Office/Dinas of Food Security and Extension Worker Department;
- (4) Education Office/Dinas and teachers;
- (5) Head of Villages;
- (6) Village DRR committees;
- (7) Representative of economic group;
- (8) Representative of district official;

Focus Group Discussions (FGDs)

FGDs were conducted with project beneficiaries, represented by Village DRR Committee, Organic Farming Groups and Adaptive Livelihoods Groups, as shown by Table 2

Table 2: FGD List

No.	Village	Participants		
		Male	Female	Total
1.	Berkas	-	8	8
2.	Pasar Tebat	-	4	4
3.	Lubuk Tanjung	1	6	7
4.	Lais and Dusun Raja	1	11	12
5.	Lubuk Lesung	-	4	4
6.	Linau	1	8	9
7.	Tanjung Besar	-	7	7
8.	Rawa Makmur	1	8	9
	TOTAL	4	56	60

Document Review

The evaluation reviewed relevant program documents including: (1) Project Progress Reports; (2) Project Annual Reports; (3) Baseline Data; (4) Activity Report and (5) Secondary Data. The project related documents review provided useful information on project rationale, baseline data and activities implemented. Data and information from secondary data such as statistical information, related government program gave useful information in terms of project relevance.

Questionnaire and Sampling Design

The study uses questionnaires to obtain project impact in 28 villages (project sites) in 3 Districts of Bengkulu. The questionnaire can be found at Annex 7. To obtain representative sampling, the evaluation use Slovin² sampling size calculation method, with the following formula:

$n = \frac{N}{1 + N e^2}$	N = Population n = sample e = error tolerance
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Based on the available data of the 28 villages, the total population is 9,894 household and with Slovin Method at $e = 0.05$, this population is represented by 384. Considering the possibilities of non-returning questionnaires, the study involves 415 actual samples, which is far more than representative size, as illustrated by Table 3. The selection of sample is based on systematic random sampling.

Table 3: Distribution of Respondents

District	Number of Respondents	Percentage
North Bengkulu	70	16.9
Kaur	86	20.7
Bengkulu City	259	62.4
Total	415	100.0

As can be seen from the above table, majority of the respondents reside in Bengkulu City. This is because the sampling selection use proportional to population size.

This final evaluation report is a collaboration between PCI and Circle Indonesia. The report was produced after document review, field data collection and discussion with CADRE team at PCI and KabaHill of Bengkulu. Circle Indonesia led the data collection and analysis process, while this report was prepared primarily by PCI. All data were independently collected and verified by the external evaluation consultant.

C. PROGRAM OVERVIEW

In September 2011, the U.S. Agency for International Development (USAID) Indonesia Mission awarded Project Concern International (PCI) a cooperative agreement to support the Cross Sectoral Strategies for Climate Change and Disaster Risk Reduction in Indonesia (CADRE) project. The CADRE project is a strategic collaboration between PCI, KabaHill Centre, universities, consultants, local communities and government to address the needs of three districts, 30 communities and an estimated 35,000 people in Bengkulu province – one of the most disaster-prone provinces in the country. Specifically, the project sought to strengthen resilience of vulnerable rural populations in Bengkulu province to disaster and climate change. This was achieved through three intermediate results, as illustrated by Table 4.

² Gizew, A. (2013) Determinants of Market Supply of Vegetables: A Case of Akaki-Kality Sub-City, Ethiopia. Journal of Rural Development, Vol. 32, No. (3) pp. 281 – 290; Guilford, J.P. and B. Fruchter, 1973. Fundamental Statistics in Psychology and Education. 5th Ed., McGraw-Hill Book Company, New York.

Table 4: Project Results Framework

Strategic Objective: Strengthened resilience of vulnerable populations in Bengkulu Province of Sumatra to disaster and climate change					
Intermediate Result 1: Strengthened institutional capacity for disaster & climate change management		Intermediate Result 2: Reduced exposure and vulnerability through adaptive livelihoods		Intermediate Result 3: Improved disaster preparedness practices of communities through knowledge & education	
1.1: Disaster risk reduction committees formed and strengthened	1.2: Vulnerabilities mapped and compiled	2.1: Adaptive livelihood groups formed	2.2: Training and assistance for adaptive livelihoods supported	3.1: Improved dissemination and education on DRR	3.2: Improved community knowledge on early warning response
1.3: DRR plans developed and initiated		2.3: Access to capital for adaptive livelihoods increased			

Source: Project Technical Narrative

IR 1.Strengthened institutional capacity for disaster and climate change management.

PCI built the capacity of three district disaster management bodies (BPBDs) and facilitated the formation of Community Disaster Risk Reduction Committees (C/DRRCs) to assess and map risks, develop and initiate Disaster Risk Reduction action plans.

Under this intermediate result, the following activities were implemented as illustrated by Table 5.

Table 5: Activities implemented for IR 1

Capacity Building of BPBD	Community DRR Committee
Workshop in Disaster Risk Reduction for BPBD and other Local Government Units (LGUs)	Village Committee on DRR formation and organizational strengthening
Workshop on climate changes adaptation	Participatory Hazard, Capacity and Vulnerability Assessment at village level
Coordination Meeting between the LGUs	DRR Committee Action Plan and Development of Village Action Plan on DRR
Workshop on DRR and Climate Changes Adaptation with LGUs, community leaders and Village Committee for DRR	Trainings for Committees • First Aid • Fast Response • Emergency Response • Disaster Emergency Logistic including emergency food supply • Temporary Shelter • Earthquake Resistance Housing Construction

In addition, the project strengthened committee and village communities' linkage to public services on sustainable livelihoods including existing development schemes. Linkages were promoted through various meetings organized such as regular bi-annual meetings, monthly coordination meetings with BPBDs and related agencies, and advocating for disaster resilience on behalf of community groups.

IR 2.Reduced exposure and vulnerability through adaptive livelihoods

The project directly supported rural households affected by disaster and climate change to proactively begin to adapt livelihoods. This was achieved through the formation of adaptive livelihood groups of farmers who will be trained in the principles of permaculture and provided with technical assistance to access capital.

Table 6: Activities implemented for IR 2

Organic Farming	Adaptive Livelihood Diversification
Organic farming trainings • ToT of Permaculture for staff and lead farmers • Field Farmers School (FFS) organic farming which covered bio-pesticides, soil preparation, home garden design and Integrated Pest Management (IPM) • Advance organic farming training facilitated by University • Refresher permaculture training for lead farmers	Adaptive livelihoods training • Assessment of potential livelihood diversification • Training on poultry management • Training on mushroom cultivation • Training for aquaculture (fresh water fisheries) • Biofloc technology training • Training on cake and crackers production • Book keeping management
Kitchen Garden and vegetable cultivation	Adaptive livelihoods promotion • Homemade cake and crackers production • Catfish raising support • Mushroom production support
Market promotion of organic vegetable	Entrepreneurship trainings • Training on Permit Requirement for Home Industry • Basic entrepreneurship training

IR 3. Improved disaster preparedness practices of communities through knowledge and education

The project improved knowledge and education among targeted communities in several disaster preparedness competencies, including early warning readiness and disaster preparation and response. PCI utilized a variety of education and knowledge building activities including community radio, home visits, traditional theatre, art and other forms of community education. By the end of the project, all communities were expected to develop community-based early warning systems, conduct drills and simulations, and at least 50% of households should have a planned response in case of a disaster.

Table 7: Activities Implemented for IR 3

Mainstreaming disaster preparedness through school	Communities Education
Disaster Risk Reduction Training for School and School Level Disaster Simulation	Disaster Preparedness Capacity Development • Village Level Disaster Simulation • Capacity Building for cultural and religious leaders
DRR Training for Teacher • DRR Training for Teachers • Training on syllabi integrating DRR/CC into existing curricula	Climate Changes and DRR Education • Information dissemination through cinema • Information dissemination through community meetings and discussions • Information dissemination through community religious activities
DRR awareness raising through art competitions for pre-school children	DRR and CCA jamborees at district and province level

D. EVALUATION RESULTS: PROGRAM DESIGN

This section presents the evaluation findings on CADRE's program design and relevance with local development challenges and agenda. The key themes for program design and relevance are identified as follows.

Bengkulu is one of the most disaster and climate change shock prone province in Indonesia. Bengkulu is located on the Southwest coast of Sumatra Island and has a coastline of 525 km that faces directly with the Indian Ocean.³ The disaster index of Bengkulu in 2013 listed that the three project site districts (Bengkulu City, North Bengkulu and Kaur) are among highest risk district in Bengkulu Province (BNPB, 2013).

The program was designed to respond the disaster and climate change vulnerability by building community resilience. The project promoted the mainstreaming of disaster risk reduction as an integral response in climate change adaptation.

Institutional capacity to respond to and manage natural disasters is relatively new in Indonesia. The Government of Indonesia has embarked on strengthening the capacity for disaster management though the adoption of Act No. 24 of 2007 concerning Disaster Management.⁴ At

³ Historical data record several tsunami disasters in Bengkulu with the 1883 tsunami as the most devastating one (Armiis, 2013). Bengkulu lies near the Sunda Subduction Zone and Sumatra Fault and therefore it is prone to possible earthquake and tsunami. The most recent disaster in June 2000 caused damage and the loss of at least 100 people. In 2007, an earthquake of 7.9 hit Bengkulu and West Sumatra causing lost of 25 lives (Bappenas, 2007)

⁴ The Law stipulates about the role of National and Local Governments Establishment of BNPB and BPBDs; Roles and Responsibility of Community in DM Roles of Private sectors and International in DM Implementation: pre-disaster, emergency response, and post-disaster Funding and Relief Assistance Management Controlling, Monitoring & Evaluation of DM implementation.

national level, National Agency for Disaster Management was established in 2008, through Presidential Regulation No. 8 of 2008.⁵ These indicated shift from a focus on disaster response to Disaster Risk Reduction and promotion of systematic approach to disaster management⁶. As newly created agency, there are still lack of capacity in disaster response.

Since the capacity of disaster agency is key to effective disaster response including in the DRR and mitigation, the project targeted capacity building of the BPBD both at province and 3 districts. CADRE supported the three BPBD to encourage preparation of mid-term strategic plan document as key road map and strategic guideline in disaster response program. Various activities supported by the project-stimulated awareness on the need for DRR and CCA and key personnel capacity development on DRR and CCA. In addition to enhancing district and provincial government institutional capacity, the project engaged in strengthening village and local community capacity in disaster risk reduction and climate changes adaptation. These include in preparation of village level disaster mapping and management plan, which also identified community vulnerability and capacity. There were 28 documents prepared in 28 villages in the three districts namely 8 villages in Bengkulu City, 10 villages in North Bengkulu and 10 villages in Kaur District.

Strategic partnership was a key focus of building capacity for both government and community-level stakeholders. The project signed a Memorandum of Understanding (MOU) with the governor at the province level and at the field-level the project maintained strategic collaboration with local government units such as BPBD, Bappeda and Agriculture related agencies. Project activities have demonstrated strategic intervention in enhancing capacity of BPBD, community based disaster management and develop linkage between community and local government.

The project design shows that project complemented the BPBDs capacity to carry out their core functions in the three districts. Similarly, the project built links resources from the Local Government Units relevant to agriculture (Office of Agriculture, extension workers and food security agency). For instance, the project developed linkages between farmers beneficiaries involved in organic farming and kitchen garden with agricultural extension services. Various adaptive livelihoods groups in Sumber Jaya, Rawa Makmur, Beringin raya, Teluk Sepang, Pasar Lais, air Padang, Sumber Harapan and Linau have been able to obtain financial resources and agricultural inputs such as seeds from local government to leverage their organic farming production. Existing expertise of agriculture services is also channeled in that organic farming groups benefited from expertise contributed by agriculture extension officer.

E. EVALUATION RESULTS: PROGRAM RESULTS

CADRE's final evaluation consultant conducted an endline population based survey to understand the context of DRR/CCA capacity, adaptive livelihoods and disaster preparedness

5 UNDP – BNPB (2009) Lesson Learned: Disaster Management Legal Reform, The Indonesian Experience. Jakarta: UNDP – BNPB.

⁶ Under the Law No. 24 of 2007, three phases of systematic approach are identified, as: (1) pre-disaster planning and preparedness (DRR, mitigation, preparedness and contingency plan); (2) emergency responses, and (3) post-disaster recovery.

after the completion of the intervention. In order to measure overall impact on vulnerability, the survey asked if respondents believe that household vulnerability has decreased compared to three years ago. Sixty-four percent of respondents believe that it has decreased, while 36% do not believe that it decreased. While this question does not identify the specific mechanism that would decrease household vulnerability, it does provide strong evidence that the population of the intervention area perceive themselves as less vulnerable now than they did prior to the implementation of CADRE.

Institutional Capacity for Disaster and Climate Change Management

The project supported the capacity of village level institutions on disaster management by facilitating the formation of 30⁷ village level CDRRCs in three districts in the provinces of Bengkulu. The list of these villages is shown in Annex 5.

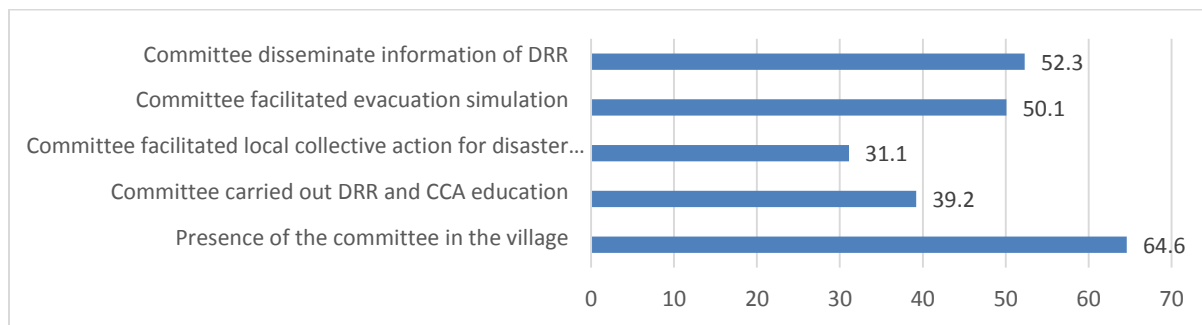
The project facilitated the village committees to conduct risk assessment followed by production of hazard and disaster potential maps. The efforts focused on increasing CDRRCs knowledge on DRR and CCA, strengthening the committees' organizational structure, developing DRR/CCA annual work-plans and developing a clear strategy to implement the plan. . Similarly, in each village, with collaboration among the Committee, village government and district government, village disaster management plans⁸ were prepared. These plans are official documents developed with participation of villagers to identify disaster risk and vulnerability using the Hazard, Vulnerability and Capacity Assessment (HVCA). The plan also incorporates village government's plan and program on disaster risk reduction covering capacity building and physical activities. The disaster management plan is for 5-year period, functions as guideline for DRR and Disaster Responses. These have become remarkable project achievement as model in community based disaster management. [Indicators on BPBD integration into planning]

The survey found that 64% of respondents are aware of the presence of the committee. Given that the committees did not exist prior to the CADRE project, PCI considers this a success in raising the profile of the potential for communities to be the drivers of their own DRM and CCA agendas. Survey respondents felt that the committees fulfilled a variety of roles, as demonstrated in figure 5, demonstrating the variety of ways that committees can be a valuable resource for strengthening DRM and CCA capacity outside of the committees themselves.

⁷ In total CADRE facilitated the formation of 30 CDRRC and 1 replication CDRRC village in Kaur, and one village has already established committee. However, there were 4 villages dropped their participation in Bengkulu City and North Bengkulu.

⁸ The Act No. 24 of 2007 and the Presidential Regulation No. 21 of 2008 do not specifically mention the needs for village level disaster

Figure 1: Respondents Perception on the Roles of the Committee

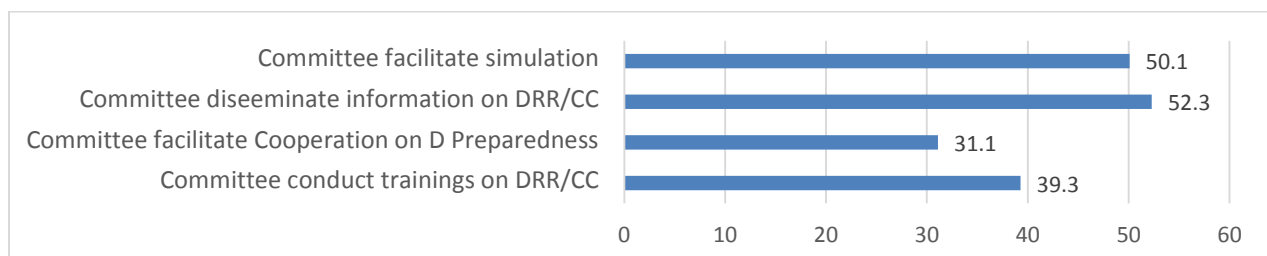


Source: CADRE Final Evaluation Survey, 2015

CADRE has strengthened local NGO organizational capacity by partnering with KabaHill in project implementation. At the start of the project, PCI conducted an organizational capacity assessment of KabaHill, which resulted in a capacity strengthening plan to be implemented throughout the life of the project through specific training and on the job learning. CADRE facilitated capacity-building activities for KabaHill in disaster response program management, financial management, and investment in local expertise on disaster preparedness, mitigation and emergency responses. As a result, KabaHill is equipped with adequate capacity to further implement DRR and Climate Changes program. KabaHill's partnership on CADRE was also key to promoting the sustainability of the project results. KabaHill is currently constructing a disaster risk management and sustainability school that will bring together government, community and university representatives to build capacity in DRM, train people on alternative livelihoods, and further link community and government representatives.

Community capacity is key for disaster and climate changes resilience that can be sustained after project completion. The project supported the communities in 30 villages to improve their resilience to the risk of disaster/hazard and climate changes. As community based organization, committee can be an effective institution for continuous hazard, vulnerability and capacity assessment and perform community awareness activities.

Figure 2: Committee Activities



Source: CADRE Final Evaluation Survey, 2015

CADRE interventions toward resilience community is in line with BNPB program called *Desa Tangguh Bencana* (Disaster Resilient Village). Based on the Decree of BNPB No. 1 of 2012, Disaster Resilient Village (DRV) is a village that has capacity to respond, adapt and recover from disaster events. Resilient village is indicated by its ability to identify disaster risk and

organize its resources for disaster risk reduction and is able to develop further capacity for DRR. DRV promotes community based disaster management as has been also promoted by CADRE. This evaluation identified BNPB indicators on DRV and CADRE's contribution to those indicators. Details are in the following table, which demonstrates that the project contributed significantly towards creating DRVs in 30 communities in the project intervention area.

Table 8: Project Contribution toward Disaster Resilient Village

Category	Indicators for Disaster Resilience Village	Project contribution
Legislation/Regulation	Village Disaster Management Policies or community disaster action plan	Project supported development of village/community disaster action plan
Planning	Present of community disaster action plan	Project facilitated participatory process to develop disaster contingency plan in 30 villages
Institutional	Village DRR Forum, Disaster Management Volunteers and partnership between villages and disaster management actors	Project facilitated establishment of DRR and Climate Changes Committee, equipped with voluntary committee members. Project also developed linkage between community and BPBD and Agricultural Services
Funding	Emergency Response and DRR funding	Project advocated supportive political will among policy makers (coordination meeting); Project supported development of evacuation road in various villages
Capacity Development	• DRR training for village authorities • DRR training for community members and volunteers • Participation of community in DRR decision making • Women participation in volunteer groups	• Project provided trainings for village officials in CCA/DRR • Project supported trainings for community members and volunteer • Project promoted participatory community action plan • Project promoted women participation in DRRCC Committee (See F.8.)
Disaster Risk Management	• Local Disaster risk mapping evacuation maps, routes and sites; local early warning system • Economic resilience to reduce disaster impact and protection of local productive assets • Protection of vulnerable people	• Project supported development of evacuation maps, routes and sites as well as early warning system • Project supported livelihoods resilience through organic farming and adaptive livelihoods activities • Project built evacuation road

Source: Prepared by Evaluation Consultant based on Comparison between BNPB DRV Indicators⁹ and Project Activities and Results

⁹ As identified in BNPB Regulation No. 1 of 2012 Concerning Guideline for Disaster Resilient Village

Adaptive Livelihood Development

The project addressed the risk of climate change driven food insecurity by investing in alternative livelihoods through agriculture related activities. Through the formation of 49 adaptive livelihood community groups, and related training and support for those groups, the project made a significant contribution for enhancing community resilience. A total of 691 farmers were trained in adaptive farming techniques, which represents 100% of the farmers in the adaptive livelihood groups. According to the final evaluation survey, 52.3% of people in the target area have implemented adaptive strategies to reduce exposure to climate change risks.¹⁰ This is an increase of over 34% points from the baseline of 18%. And is particularly significant because only a small percentage of farmers were members of community livelihood groups, meaning that there was significant spill-over or demonstration effects from training the adaptive livelihood groups around the community.

Table 9: Key Adaptive Livelihood Indicators from Performance Monitoring Plan

Key Livelihood Indicator	End Result
Number of adaptive livelihood groups formed	49
Number of farmers trained in adaptive techniques	691
Percent of farmers trained in adaptive techniques	100%
Percent of farmers in target area that have implemented adaptive strategies for reduced exposure	52.3% ¹¹
Number of famers who have accessed seed capital for adaptive livelihood enterprises	717
Amount of capital leveraged within communities for the purposes of adaptive livelihoods	\$56,996

The final survey discovered that 30.6 % (127 respondents) attended trainings on adaptive livelihoods. Of these, more than 42% out of 127 of respondents joined three or more trainings on adaptive livelihoods trainings in a year, as illustrated by Table 11.

Table 10: Adaptive Livelihoods Trainings

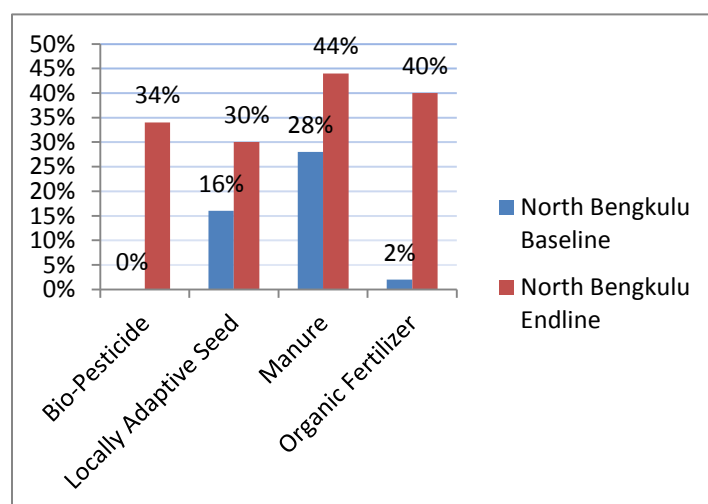
Frequency	North Bengkulu		Kaur		Bengkulu City		Total	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Once a year	27	69.23	9	26.47	8	14.81	44	34.65
Twice a year	3	7.69	7	20.59	19	35.19	29	22.83
3 or more times a year	9	23.08	18	52.94	27	50.00	54	42.52
Total	39	100	34	100	54	100	127	100

Source: CADRE Final Evaluation Survey, 2015

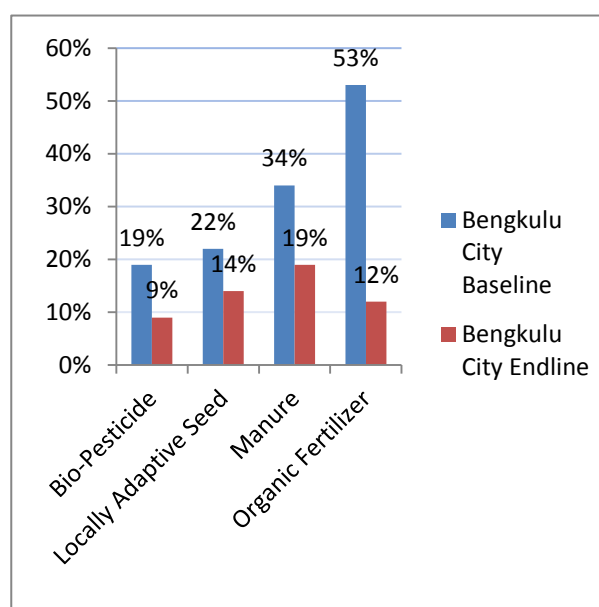
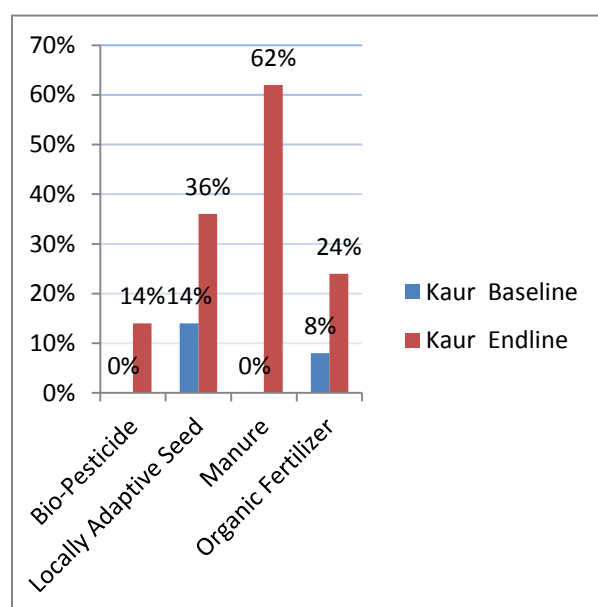
¹⁰ Per the project PMP adaptive strategies means that the respondent has implemented at least two new technologies to reduce exposure to risk.

¹¹ This is based on the entire population of the project area, not just the beneficiary population.

Figures 3: Improved Organic Agriculture Practices by District



In comparing the use of certain organic agriculture practices and technology from baseline to endline, there was an increase in their use and deployment in both Kaur and North Bengkulu, but a decrease of use in Bengkulu City. The endline survey compared the use of bio-pesticides, locally adapted seeds, manure and organic fertilizer in each district. The results are displayed in the figure to the left.



It was not immediately clear why both Kaur and North Bengkulu had increased use of organic farming practices and Bengkulu City saw a decrease. One possible reason is that livelihoods and sources of income are significantly more diversified in Bengkulu City than they are in the other two districts. Only about 6% of respondents were farmers in Bengkulu City while 30% in North Bengkulu and 35% in Kaur are farmers. Given that only 6% of respondents in Bengkulu City classify themselves as farmers, it is still impressive that more than 6% of respondents reported using each of the four organic farming practices. For Kaur and North Bengkulu, although it is difficult to determine direct attribution, the results indicate that CADRE has a significant positive impact on the use of organic farming as an adaptive livelihood.

More importantly, results indicate that the trainings and implementation of adaptive livelihoods such as organic farming led to an increase in income among some respondents. Of the total

population in North Bengkulu 54% reported practicing adaptive livelihoods, and 33% reported increased income from adaptive livelihoods. Though a bit lower than in North Bengkulu, similar condition happened in Kaur and Bengkulu City. Bengkulu City is urban area with more population density than the other two districts.

The impact of CADRE on household economy occurred also from sales and decrease household expenditure for vegetable consumption. In this regard, PCI conducted a mini survey in October 2014 to get a better understanding of the organic farming practices that have been adopted by livelihood groups assisted by CADRE and the economic impact of this alternative livelihood. PCI sampled members from all livelihood groups and learned that all groups, and a strong majority of individuals within the groups, are continuing to implement organic farming practices. Furthermore, most are seeing economic benefits from this practice, as an average of \$9.76 across the three areas is saved each month for each household that is implementing the organic farming practices.

Table 11: Outcomes of Alternative Livelihood Promotion

Organic Farming Indicator	Bengkulu City	North Bengkulu	Kaur
Varieties of crops planted planting as a result of CADRE	15	8	6
Percentage of production for sale	38%	38%	35%
Saving made each month from the purchase of fruits and vegetables as a result of organic garden	\$13.17	\$4.82	\$11.29

CADRE also implemented activities related to duck, poultry and catfish raising as part of adaptive livelihoods. Most successful of the interventions was the duck rearing, where CADRE helped develop a pass-on scheme where farmers would receive training in duck rearing and would also receive ducklings after training. Once they raised the ducks and had ducklings of their own, they would pass on some of those ducklings to new adaptive livelihood group members, who would then also receive training from CADRE. As a result, 145 farmers received ducklings and duck rearing training. The table below shows all adaptive livestock raising participants.

Table 12: Number of Adaptive Livelihood Groups and Members

Activity	No. of Groups	Participants		
		Male	Female	Total
Catfish Farming	13	80	42	122
Duck Farming	16	24	121	145
Food Processing	14	78	139	217
Mushroom Farming	5	0	19	19
Total	48	182	321	503

CADRE's approach to alternative livelihoods was to incorporate strategies into the local government agenda. An example of this integration came from interviews with the Indonesian Food Security Body (*Badan Ketahanan Pangan – BKP*) and Agricultural Office (*Dinas Pertanian*).¹² Interviews with the Food Security Body and Office of Agriculture of Kaur expressed that CADRE's activities strengthened and complemented the program implemented by the government in promoting food security through utilization of home garden, as cited below.

“...CADRE has contributed to food security among the participating villages in Kaur. Un-utilized home compound has been transformed to organic vegetable plots which produced food sources for the participating households. Organic vegetable has also been promoted which help the household to reduce cost for household consumption because nowadays participants have enjoyed their own vegetable production...”

(Interview with Mr. Defrial, Head of Office of Agriculture, Kaur District, 2015).

By the end of the project, about \$56,000 was invested by communities and government development funds to match project investments in adaptive livelihoods. These interventions helped diversify livelihoods, particularly women, as indicated by the case studies in Annex 2.

Improved Disaster Preparedness Through Knowledge and Education

The third strategic objective of CADRE was to transform community resilience through education, knowledge development and disaster-risk information dissemination. To raise awareness and build capacity in disaster risk management the project collaborated with national and local authorities, professional and community groups, religious institutions, schools and universities. The first main area of training was in disaster preparedness for community groups. The project conducted disaster simulation exercises in conjunction with BPBD in 77 villages more than once each year. The final evaluation determined that 99.52% of households in the target area have at least one specific planned response in the event of a disaster. The endline survey asked respondents how many disaster preparedness trainings they have attended in the past year. The implication is that if respondents have attended more than one training then additional trainings have happened outside of the CADRE project and is thus becoming more mainstreamed. Fifty percent of respondents reported that they have attended trainings more than once, as shown by the graph below.

Table 13: Frequency of Participation in Disaster Related Trainings

No.	Training	Frequency of Respondents' Participation in Training		
		Once	Twice	3 or more times
1.	Disaster Vulnerability Factor	50%	19%	31%
2.	Disaster Emergency Preparedness Simulation	53%	29%	18%
3.	Disaster preparedness Training	52%	21%	27%

¹² Interview with *Dinas Pertanian*, BKP and extension workers in Bengkulu City, Kaur and North Bengkulu, February 2015.

As indicated by the above table, 100% of respondent surveyed have attended at least one training on disaster vulnerability factors and disaster preparedness, and have done one disaster emergency preparedness simulation. More notable is that significant percentages of the population in the target project areas have attended two or more trainings and simulations.

Therefore, it is notable that CADRE has profound impact on knowledge development on DRR, as reflected in an interview with Senior Official of BPBD, as follow:

“...CADRE helped us to increase knowledge and capacity on DRR at the grassroots level. In my opinion, there is significant difference in terms of knowledge and capacity between village supported by CADRE and other non-covered villages. Participation in a number of activities like simulation, jamboree and CDRRC has increased community awareness on DRR issue...”

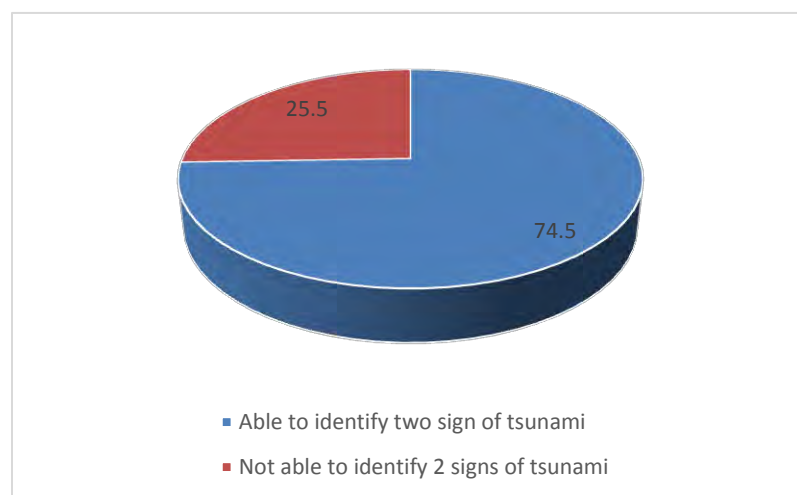
(Interview with Sudiro, Secretary of BPBD North Bengkulu, 2015)

Case Study: Community Radio in Kaur

CADRE supported community radio in Mertasari District of Kaur. The radio is used to educate local community on disaster and climate changes risk. In the emergency event, it can be used to link local needs to the disaster response unit. Using the radio, the members of the CDRRC educate public on regular basis. Technical preparation was supported the University of Bengkulu, providing trainings for the youth and CDRRC to produce broadcasting materials; basic of journalism and community radio management including maintenance of equipment.

The endline survey also discovered that disaster related trainings resulted in attitude changes toward disaster response. The final evaluation survey found that 46.7%¹³ of the respondents have been able to identify two vulnerability factors in their villages. This was huge achievement from the baseline where only 5% of respondents in the same areas that were able to identify two vulnerability factors.

Figure 4: Respondents’ Ability to Identify Tsunami Sign



Similarly, the baseline study reported that only 23.5% of the respondents were able to identify tsunami sign. After two years, this has jumped to 74.5%¹⁴ of respondents have been able to identify two signs of tsunami.

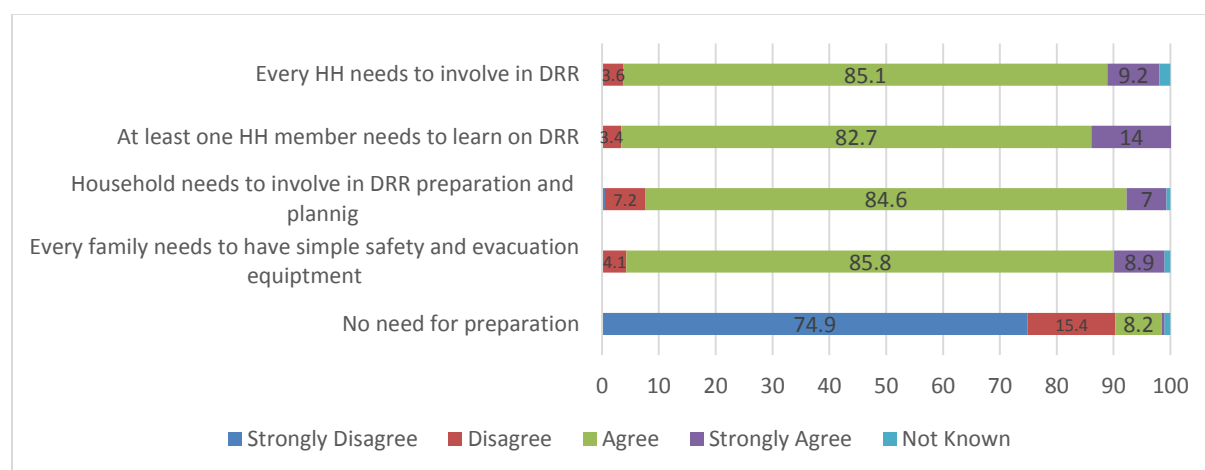
The final evaluation also found evidence that community perceptions around the need for disaster preparedness are strong

¹³ The project targeted 75%.

¹⁴ The project targeted 75%.

in the community. The endline survey asked several questions related to people's perceptions on the need for disaster risk reduction. Although there is no baseline to which endline data can be compared, the endline results are nonetheless very encouraging. For example, more than 90%¹⁵ off the total population of the intervention areas responded that every household needs to be involved in DRR and DRR related activities. Only 8.2% of household think that there is no need for disaster preparation.

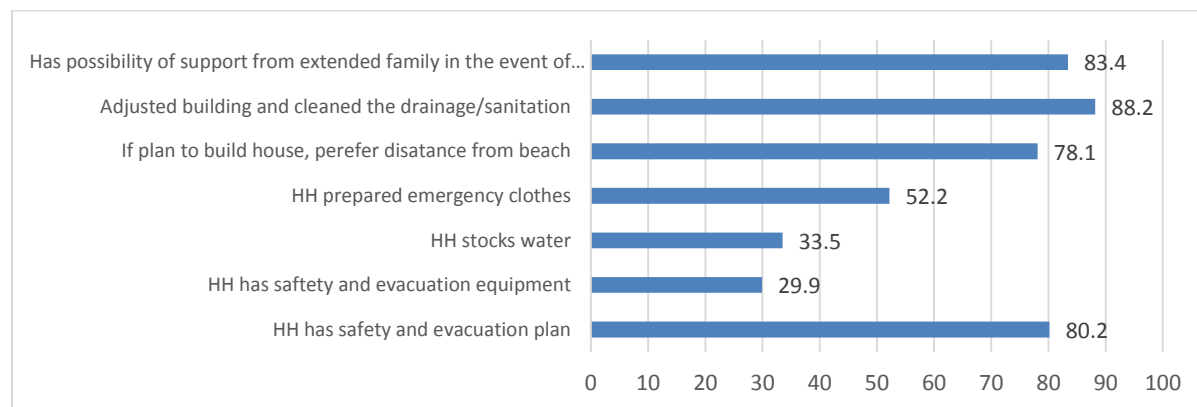
Figure 5: Perception on DRR



Source: CADRE Final Evaluation Survey, 2015

In addition to perceptions, there is strong evidence that CADRE affected household behavior related to disaster preparedness. As demonstrated in the following graph, 88.2% of households have taken the proactive protective step of cleaning out drainage on their property to reduce the risk of flooding, and 80.2% of respondents reported that their household has a safety and evacuation plan in the case of emergency. Preparing with safety and evacuation equipment was practiced by the lowest percentage of the population (29%) likely due to the cost and availability of disaster preparedness equipment.

Figure 6: Behavior in Household Disaster Preparedness



Source: CADRE Final Evaluation Survey, 2015

¹⁵ The evaluation could not find similar data at the baseline report.

CADRE supported BPBD to improve the capacity of teachers to disseminate DRR and CCA information to the students. CADRE conducted a series of trainings in the three districts, in collaboration with a number of government agencies, such as the Bengkulu District Office of Education, Social Welfare Department, and the Health Department. The training focused on integrating DRR/CCA topics into the current curriculum, basic first aid skills, school disaster mapping, and evacuation assistance and routes. As a result, a total of 10,402 students and 775 teachers at 49 schools received disaster preparedness training through specific skills training, disaster simulations, movies and school competitions.

Table 14: Number of teachers and student received training on DRR/CCA

No	District	No. of Schools	Teachers			Students		
			Male	Female		Male	Female	Total
1	Kaur	16	130	134	264	1318	1513	2831
2	Bengkulu	24	186	193	379	3060	2832	5892
3	Bengkulu Utara	9	63	69	132	823	856	1679
	Total	49	379	396	775	5201	5,201	10,402

At the policy level, the project supported the establishment of Disaster Preparedness Committee within the *Dinas Pendidikan*/Education Services Unit of the local government. The disaster simulations facilitated in the school has also encouraged the schools to adopt specific disaster response policies, such as integrating disaster preparedness into curricula, identifying evacuation routes and safe zones, and having school wide disaster management plans. Of the 12 schools that CADRE worked with in Bengkulu city, all have identified safe zones and evacuation routes, 7 have school wide disaster response programs, and ten have integrated disaster preparedness into curricula. Key informant interview responses indicate that the CADRE school trainings will have a lasting impact on school disaster preparedness. For example, the principal of SD Negeri 10 primary school in Kaur commented that the CADRE training “made disaster management one of the management priorities in our school. We now have a designated teach for disaster related trainings...we have also mainstreamed disaster knowledge in our curricula.

Gender-Specific Outcomes

To strengthen women’s access to livelihoods and food security, the project has supported adaptive livelihoods which mostly implemented by women. The evaluation found that CADRE’s approach has proven to open access for women to engage in planning, implementation and evaluation activities of DRR/CCA. As demonstrated in the table below, CADRE met or exceed all performance indicator targets related to gender. Of particular note is that 94% of lead farmers were women, when the project initially targeted only 30%. Lead farmers are members of adaptive livelihood groups that participated in the organic farming field school, were experienced in planting vegetables using organic farming techniques and were selected by the communities to become trainers in their village. It is not clear why a strong majority of livelihood group members are female (73%) and an even stronger majority (94%) are lead farmers. However, it is clear that CADRE was successful in expanding the role of women as leaders in their communities.

Table 15: Gender Outcomes

Gender Specific Indicators	Target	Endline Result
Percent of CDRRC members in the target communities who are female	30%	39%
Percent of DRR assessments that incorporate a focus on vulnerabilities related to women	100%	100%
Percent of community DRR plans that incorporate vulnerabilities related to the needs of women	100%	100%
Percent of livelihood group members who are female	50%	73%
Percent of lead farmers who are women	30%	94%

Policy Environment

One of the biggest challenges of the CADRE project had to do with engagement of local political entities involved in disaster preparation and disaster risk management, particularly BPBD. BPBD is a relatively new government organization in Bengkulu, so staff capacity was generally low and staff turnover rates were high. For example, there were four changes of the provincial level head of BPBD during the project period, meaning that the project had to repeatedly engage with and get buy-in from agency leadership. Furthermore, interviews with project staff revealed that there was an apparent lack of political will on the part of BPBD to engage communities in DRR-CCA activities. For example, despite significant project efforts there was no regulation or encouragement from BPBD to put DRR-CCA on village planning meeting agendas, even though 88.6% of respondents say they live in a disaster prone area.

F. LESSONS LEARNED AND RECOMMENDATIONS FOR FUTURE PROGRAMMING

Integration of DRR into Local Development Agenda

Integration of DRR into local development agenda is necessity since mainstreaming disaster and climate changes resilience need to be prioritized including by local development planning such as *Musrenbang* at village or district levels. *Musrenbangdes/kelurahan* is strategic means to incorporate the DRR plan into formal village development plan. Therefore, facilitation of such groups to participate in village development planning mechanism can serve the needs for mainstreaming DRR at the local level.

At the province and district level, formal government/development planning needs to adopt strategy for continuation of support for climate-resilient livelihoods and disaster risk management. This can be done in strategic policy advocacy and technical trainings for government including policy changes for micro-insurance and social protection as part of disaster management policy. Similarly, at the village level, promoting village regulations on climate-resilience livelihood will be strategic.

Capacity Building for Village Administration

Since the new Village Law has been adopted by the government of Indonesia, there is huge potential including financial resources that have been made available to the village to support future activities on DRR and adaptive livelihoods. Hence, strengthening village administration capacity will be critically needed in the near future.

In the 2015 state budget, there has been allocation for village development budget which will be transferred from central government to village government. In 2015, a total of IDR 79.2 billion (about USD \$6.3 million) is allocated for the villages in the province of Bengkulu. The villages entitled to this fund are those categorized as rural areas. Therefore, out of three project site districts, Kaur and North Bengkulu are included as recipient of the village funds. Kaur will receive a sum of IDR 11.1 billion (about USD \$890,000), while North Bengkulu will receive IDR 12.5 billion (about USD \$1 million) for one year period¹⁶.

Therefore, existing groups in two entitled districts can be linked with the village development fund, including integration or continuation of village disaster/contingency plan such as evacuation road and livelihoods activities. Existing community leaders and village government units can be prepared to anticipate the potential integration with the village development fund. Similarly, capacity development of village authorities to manage development funds will be necessary to ensure the effective use of these funds.

Wider Organic Farming Promotion

The project has promoted organic farming practices at the micro-level. However, large-scale transformation toward organic farming requires broader public action. Therefore, promotion of organic farming needs to be leveraged through broader changes including political support. Advocacy for adoption of local regulations (*Peraturan Daerah*) on organic farming practices will support broader transformation of heavy use of chemical agricultural inputs toward more sustainable agriculture practices.

Adaptive Livelihoods and Leverage Production and Marketing

The project has supported various adaptive livelihoods but there is common support delivered by the project. The potential of villages are different, and therefore participatory commodity/livestock will lead to identification of local potential in participatory way. This may require flexibility design of the project, which give rooms for variety of livelihoods interventions.

The project facilitated entrepreneurship training but not for all participating groups. In future programs, entrepreneurship skills need to be strengthened in order to leverage the productive capacity of women and community groups. Simultaneously, financial management¹⁷ can be strengthened to prepare production growth. This may be supported with development of strong linkage to the traditional banking sector to provide financial services such as credit to support the productive capacity of the groups.

¹⁶ Ministry of Finance (2015) Village Fund allocation for District 2015.

¹⁷ This has been initiated in some groups.

CADRE has initiated the process of formation of a cooperative called Pre-Cooperative Group which involves government extension workers. However, these were not evenly applied in each villages. Building cooperatives could be a strategic initiative for graduating household beneficiaries to be more economically independent.

Capacity Building for Community Facilitators

The role of community self-help groups is important in community empowerment. Therefore, working through enhanced community groups will enable more sustainable project interventions. Community groups may be supported with strategic plan, organizational building, group leadership trainings and enhanced facilitation skills among group leaders.

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Annex 1: Indicator Performance Tracking Table												
Indicator Number	Indicator	Indicator Definition	Desired direction of change	Baseline	2012		2013		2014		LOA	
					Target	Actual	Target	Actual	Target	Actual	Target	Actual
Strategic Objective: Strengthened resilience of vulnerable rural populations in Bengkulu Province of Sumatra to disaster and climate change												
1.0	Number of communities that have implemented specific and quantifiable disaster risk reduction measure	Number of communities that have implemented at least two disaster risk reduction measures (e.g., locally-derived early warning systems)	+	0	20	24	10	6	-	0	30	30
2.0	Percent of households that perceive reduced vulnerability to shocks as a result of engagement in program activities	Numerator: number of households surveyed that perceive reduced vulnerability to shock as a result of engagement in adaptive livelihoods program activities Denominator: total number of households surveyed in target area		17.41%	-	-	-	-	-	-	75%	88.2%

3.0	Percent of households that have made changes in their lives or livelihoods to improve readiness and reduce their risk to disaster and climate change	Numerator: number of households surveyed that have made at least two changes in lives or livelihoods to improve readiness/reduce risk Denominator: total number of households surveyed in target area	+	9.20%	-	-	-	50%	74.95%			
Intermediate Result (IR) 1 Strengthened institutional capacity for disaster and climate change management												
1.0.1	Percent of village disaster risk reduction (DRR) planning exercises with BPBD (the regional disaster management body) involvement	Numerator: total number of village DRR planning exercises in which BPBD is actively involved in facilitating the exercise Denominator: total number of village DRR planning exercises in target communities	+	0	20%	0	40%	10%	50%	30%	50%	46%
1.0.2	Number of non-project villages where project interventions are replicated or planned for by the district BPBDs	Number of villages not directly receiving project assistance that have implemented DRR activities directly resulting from capacity building at the district level	+	0	1	0	2	3	-	-	2	3
1.1.1	Number of community disaster risk reduction committees (C/DRRCs) formed	Total number of C/DRRCs formed in the target districts as a result of project intervention	+	0	15	29	15	3	-	0	30	32

1.1.2	Number of BPBDs with strategic plans developed, and with staff trained in community-based disaster risk management (CBDRM)	Total number of BPBDs that, as a result of project activities, have developed strategic plans, and have at least 50% of staff trained in CBDRM	+	0	2	1	1	2	-	0	3	3
1.1.3	Percent of C/DRRC members receiving capacity strengthening training on core competencies	Numerator: total number of C/DRRC members who have been trained on core competencies (e.g., vulnerability mapping, development of DRR plans) Denominator: total number of C/DRRC members in target communities	+	0	50%	31%	75%	100%	100%	100%	100%	100%
1.1.4	Percent of C/DRRC members in the target communities who are female	Numerator: number of C/DRRC members in target villages who are female Denominator: total number of C/DRRC members in target communities	+	0	20%	39%	25%	-	30%	-	30%	39%
LR 1.2 Vulnerabilities mapped and compiled												
1.2.1	Number of village DRR mapping assessments conducted	Total number of village DRR mapping assessments conducted in target areas that are the direct result of project intervention	+	0	15	26	15	4	-	0	30	30

1.2.2	Percent of assessments that incorporate a focus on vulnerabilities related to women	Numerator: number of assessments that include specific language on vulnerabilities related to women Denominator: total number of assessments conducted in target communities	+	0	100%	100%	100%	100%	-	0	100%	100%
LR 1.3 DRR plans developed and initiated												
1.3.1	Number of comprehensive village DRR strategic and action plans developed and initiated	Total number of DRR plans developed and initiated in target communities that identify local strategies to prevent, mitigate, prepare for and respond to shocks and stresses and that adhere to national guidelines	+	0	15	13	15	17	-	28	30	30
1.3.2	Percent of DRR plans that incorporate vulnerabilities related to the needs of women	Numerator: number of DRR plans with specific language on the special needs of women Denominator: total number of DRR plans developed in target communities as a result of project activities	+	0	100%	100%	100%	100%	-	100%	100%	100%

1.3.3	Percent of DRR plans that include adaptive feedback mechanisms	Numerator: number of DRR plans that have language included in the plan that allow for modification based on lessons learned and changing needs Denominator: total number of DRR plans developed in target communities as a result of project activities	+	0	80%	100%	90%	100%	100%	100%	100%	100%
IR 2 Reduced exposure and vulnerability through adapted livelihoods												
2.0.1	Percent of farmers that have implemented adaptive strategies for reduced exposure	Numerator: number of farmers surveyed who have implemented at least two adaptive strategies for reduced exposure to risk Denominator: total number of farmers surveyed	+	18%	-		-		-		75%	52.3%
LR 2.1 Adaptive livelihood groups formed												
2.1.1	Number of adaptive livelihood groups formed	Total number of livelihood groups formed in target communities as a result of project activities	+	0	20	17	10	9	-	21	30	49
2.1.2	Percent of livelihood group members who are female	Numerator: number of livelihood group members who are female Denominator: total membership of livelihood groups formed as a result of project activities	+	0	30%	63%	40%	59%	50%	94%	50%	73%

LR 2.2 Training and assistance for adaptive livelihoods supported												
2.2.1	Number of farmers trained in adaptive techniques	Total number of farmers trained in adaptive techniques (e.g., use of improved seeds, permaculture)	+	0	125	26	125	380	50	691	300	691
2.2.2	Percent of lead farmers who are women	Numerator: number of lead farmers in target communities who are female Denominator: total number of lead farmers in target communities	+	0	10%	0	20%	94%	30%	0	30%	94%
LR 2.3 Access to capital for adaptive livelihoods increased												
2.3.1	Number of famers who have accessed seed capital for adaptive livelihood enterprises	Total number of farmers who have accessed seed capital for the purpose of implementing approved adaptive livelihood enterprises	+	0	50	0	50	380	50	717	150	717
2.3.2	Amount of capital leveraged within communities for the purposes of adaptive livelihoods	Total amount of capital originating from communities as match for project funds, used for the purposes of adaptive livelihood enterprises	+	0	\$20,000	\$20,000	\$60,000	\$14,880	\$90,000	\$22,196	\$90,000	\$56,996
IR 3 Improved practices of communities through knowledge and education												
3.0.1	Number of villages that have conducted disaster simulation exercises	Total number of villages in target communities that have conducted disaster simulation exercises more than once annually	+	0	12	0	24	14	30	77	30	77

3.0.2	Percent of households with at least one specific planned response in the event of a disaster	Numerator: total number of households surveyed that report having at least one plan in place in the event of a disaster Denominator: total number of households surveyed	+	Bengkulu City: 20.61% North Bengkulu: 22.22% Kaur: 60.98%	-	-	-	50%	Bengkulu City: 99.6% North Bengkulu: 100% Kaur: 100% Overall: 99.75%
LR 3.1 Improved dissemination and education on DRR									
3.1.1	Percent of households that have received at least two visits per year for the purposes of DRR education	Numerator: number of households surveyed that have received at least two visits per year for the purposes of DRR education Denominator: total number of households surveyed in target communities	+	Bengkulu City: 1.15% North Bengkulu: 0% Kaur: 12.20%	-	-	-	80%	93.48%
3.2.1	Percent of community members who can describe at least two vulnerability factors to climate change/disaster and two ways to reduce their risk	Numerator: number of community members surveyed who can identify at least two vulnerability factors to climate change/disaster and two ways to reduce their risk to these factors Denominator: total number of community members surveyed	+	5%	-	-	-	75%	46.7%

3.2.2	Percent of community members who can describe at least two storm/tsunami early warning signals and correctly describe at least one appropriate response to each signal	Numerator: number of community members surveyed who can describe at least two storm/tsunami early warning signals and at least one appropriate response to each signal Denominator: total number of community members surveyed	+	23.53%	-		-		-		75%	74.5%
3.2.3	Number of educational and/or entertainment activities undertaken to increase knowledge of early warning response	Total number of education-focused and educational entertainment activities (e.g., traditional theatre) in target communities to increase knowledge of early warning response	+	0	20	0	20	204	20	273	60	477

Annex 2: Case Studies on Adaptive Livelihoods

Case of Darwati, Home Industry in Pasar Bengkulu

Darwati resides in *Kelurahan* Pasar Bengkulu and she is a single mother. Her husband, who used to work in the banking sector, passed away few years ago. Being aware of her economic burdens, she joined CADRE activities as she heard that the project provided trainings for cake making. She has some skills and experience in making cakes and therefore she was very eager to improve her skills and with the expectation that it can lead to income increase. She joined various activities of CADRE including adaptive livelihoods program. After attending trainings, she joined adaptive livelihoods group in Pasar Bengkulu. Together with her group members in Pasar Bengkulu, she started producing *dodol* (coconut sticky rice) and rice crackers. The cakes are marketed in local shops but occasionally receive orders from neighbor including from other nearby *Kelurahan*. With this activities she is able to gained approximately IDR 350,000 (USD \$ 26.22) per month.

She also engaged in organic farming and started to grow vegetable in her home. Similarly, she joined DRR Committee in Pasar Bengkulu and participated actively in training community members on disaster and alternative livelihoods. For Derwati, CADRE has facilitated her new source of income and with kitchen garden she has, vegetable for household consumption is available.

Ms. Herna in Sumber Harapan

Ms. Herna (40 years) stays with her husband in the village of Sumber Harapan in Kaur District. Her husband is the Head of the village of Sumber Harapan, with 2 kids (one has already in grade 5 and the youngest is still at grade 2). Ms. Herna joined CADRE program for adaptive livelihoods through which she raise poultry of Muscovy duck, known as *entok*. In February 2015, her *entok* has reached 62 and has performed revolving requirement. She passed on 10 ducks to other member.

She also sold two of the ducks and has been benefited from the eggs produced. In February 2015, 15 of the ducks were producing eggs when they field study was conducted, each of them produce 15 eggs in a month. She hatched the eggs, which made them having 50 ducks, and will continue to do so. However, she is aware that more ducks means more feeds supply and sometimes she has difficulty to get the feeds supply.

Ms. Herlina, Organic Farming, Linau Village, Kaur District

Ms. Herlina has stayed in the village for more than 15 years. Before the project she has not utilized the home compound for food crops. She used to grow flower in in the compound. After learning from the CADRE activities, she decided to utilize her home compound to be home garden. She planted the areas about 40 m for vegetables such as tomatoes, eggplants, onions and others. She learned about organic fertilizers and she applied the skills in her home garden. She has harvested for more than 1.5 year and she was able to gain additional income of 50,000 (about 5 USD) per week. In addition, the family now have adequate vegetable supply for their nutrition needs. Previously, they bought vegetable from local market and with the home garden; the household expense decreased significantly.

Annex 3: Scope of Work of the Evaluation

Scope of Work

Final Evaluation of the USAID-funded Cross Sectoral Strategies for Climate Change and Disaster Risk Reduction (CADRE) Program

I. Background

Funded by the United States Agency for International Development (USAID), the Cross Sectoral Strategies for Climate Change and Disaster Risk Reduction (CADRE) in Indonesia presents a strategic collaboration between Project Concern International (PCI), KabaHill Centre, universities, consultants, local communities and government to address the needs of 30 communities in three districts – Bengkulu City, North Bengkulu and Kaur – corresponding to an estimated 35,000 people in Bengkulu Province, one of the most disaster-prone provinces in the country. Specifically, the project seeks to achieve strengthened resilience of vulnerable populations in Bengkulu Province to disaster and climate change. This will be achieved through the following three intermediate results:

IR 1. Strengthened institutional capacity for disaster and climate change management.

PCI will build the capacity of three district disaster management bodies (BPBDs) and facilitate the formation of 30 Community Disaster Risk Reduction Committees (C/DRRCs) to assess and map risks, develop and initiate Disaster Risk Reduction action plans. By the end of the project, these committees will have been formed, risks mapped and quantifiable achievements made against their action plans.

IR 2. Reduced exposure and vulnerability through adaptive livelihoods.

The project will directly support rural households affected by disaster and climate change to proactively begin to adapt livelihoods (i.e. incorporation of crops and methods that build resiliency to disaster and climate change). This will be achieved through the formation of 30 adaptive livelihood groups of 300-450 farmers who will be trained in the principles of permaculture and provided with technical assistance to access capital. By the end of the project it is expected that at least 75% percent of participants will be incorporating adaptive methods into their livelihoods with more than \$90,000 leveraged in capital to support these activities.

IR 3. Improved disaster preparedness practices of communities through knowledge and education. The project will improve knowledge and education among targeted communities in several disaster preparedness competencies, including early warning readiness and disaster preparation and response. PCI utilizes a variety of education and knowledge building activities including community radio, home visits, traditional theatre, art and other forms of community education. By the end of the project, all communities will have developed community-based early warning systems, conducted drills and simulations, and at least 50% of households will have a planned response in case of a disaster.

In summary, key intervention areas are the following:

- DRR capacity building at the community, government and school level, including the formation of C/DRRC at the village level
- Information dissemination through various channels, including social group activities, religious leaders, school-based activities, and radio
- DRR practices through the development of early warning systems and disaster simulations
- Permaculture training and Farmer Field Schools
- Small economic development activities for alternative livelihoods such as food processing, livestock, and catfish breeding
- Advocacy and networking with stakeholders through coordination meetings, seminars and workshops with government agencies, universities, and local entrepreneurs

The program started effectively during the first quarter of 2012 and will end in March 2015. To measure the program's impact and potential for sustainability, there is a need to carry out a final program evaluation.

II. Objective of Evaluation

This evaluation shall address the achievement of the program's goal to strengthen resilience of rural communities to natural disasters in three districts (Bengkulu City, North Bengkulu and Kaur) in Bengkulu province, and the effectiveness of the program design in achieving the program goal. The detailed project monitoring plan (PMP) with performance indicators is attached.

The following questions should serve as guidelines to help the external consultant structure data collection tools. Key performance indicators specified in the PMP should also guide the focus of the evaluation. The external consultant is expected to refine and adapt the final research questions based on consultations with the CADRE team.

2.1. Overall Program Outcomes and Impact

2.1.1. Did the program meet targets and goals related to the performance indicators defined in the Performance Monitoring and Evaluation Plan? What were the reasons that key performance targets were or were not met?

2.1.2. To what extent did the program strengthen institutional capacity for disaster and climate change management among BPBDs and C/DRRCs? What have BPBDs and C/DRRCs achieved as a result of increased capacity? Specify how BPBDs are actively involved in community DRR, how the CADRE program facilitated linkages between the BPBDs and communities, and extent to which BPBD/village linkages were expanded to non-intervention communities

2.1.3. To what extent was the program able to reduce exposure and vulnerability to disaster by increasing technical knowledge of, adoption, and income from adaptive livelihoods? How well did the CADRE program promote positive behavior change in adaptive technologies and to what extent were these technologies adopted?

2.1.4. Quantify the economic impact of adaptive livelihood activities in terms of income generated and money saved.

2.1.5. To what extent did the program improve disaster preparedness practices among targeted communities through knowledge and education? What specific knowledge was gained and how was that knowledge used and shared?

2.1.6. To what extent did program interventions impact women beneficiaries in addressing gender-specific needs to climate change adaptation (CCA)? How did these interventions help women respond to shocks and stresses to mitigate their risks?

2.3. Relevance of the Design and Program Coverage

2.3.1. Was the program design relevant to the targeted beneficiaries? What are the key determining factors that make this program design relevant?

2.3.2. What components of the project design had a positive impact on DRR and CCA, and what components had little/no impact or could have been improved? Components include: community mobilization, constitution of DRM committees, approach to adaptive livelihoods, linking groups with other stakeholders, partner performance, and technical service provision to groups

2.3.3. How well was the program designed to improve government capacity building and linkages to community DRR? Quantify increased government capacity and linkages.

2.3.4. Is the program design replicable and scalable? If so, what factors will determine where this program can or cannot be replicated and scaled?

2.4. Sustainability

2.4.1. Are the groups formed during the program (DRR groups, Livelihood groups, and organic farming groups) functioning independently?

2.4.2. Have the above mentioned groups formed linkages to the available institutional and financial resources? If linkages have been formed with available resources, what outcomes have been generated, and are the linkages sustainable?

2.4.3. Have beneficiaries created any innovations based on the adaptive livelihood trainings that could make them more sustainable?

2.4.4. Did the adoption of adaptive livelihoods have any negative impacts that would affect their sustainability?

2.4.5. What is the current policy environment influencing the likelihood of sustainability for these groups?

2.4.6. Has the program created any “champions” who can continue to lead the process of developing resilient communities?

Through the process of responding to the research questions, the external evaluation consultant is expected to identify lessons learned, challenges and unexpected results to provide concrete

recommendations for improved future program design and implementation. The consultant will also document best practices to provide recommendations for organizational learning.

2.5. Recommendations and Lessons Learned

2.5.1. Based on the final evaluation findings, what lessons were learned in terms of climate change adaptation and disaster risk reduction programming

2.5.2. Based on evaluation findings, what recommendations would you have for PCI if it were implementing a similar project in another location?

III. Evaluation Design: Sample, Data Sources and Research Methods

Sample Population

The evaluation consultant is expected to use a survey sample that will respond to the proposed research questions and be statistically representative of the intervention area. The sample should take into consideration all of the following stakeholders:

- Regional Body for Disaster Management (BPBD)
- Agriculture Department
- Food Security and Extension Worker Department
- Education Department
- Religious Department
- Village Committee
- Representative of economic group
- Representative of organic farming group
- Representative of village official and village leader
- Representative of District official
- Representative of teacher worked on School based disaster management

Data Sources

Both primary and secondary data sources should be considered in the development of the program evaluation design. Primary data sources should consider the entire CADRE population and appropriate respondents/key informants. Secondary data sources include program source documents, e.g. CADRE contract agreement, work plans, reports (baseline, mid-term, annual, etc.), policy documents, etc.

Research Methods

A mixed-methods approach for collecting both quantitative and qualitative data is preferred. Data should be representative of the program intervention and can include document reviews and synthesis, focus groups, key informant interviews, observations, surveys, among other kinds of research methods.

Quantitative data should be managed using appropriate data management technology and analyzed using statistical software (e.g. R, SPSS, STATA, Epi-Info, etc.). Quantitative and qualitative data should be presented using the appropriate data visualizations to effectively represent key results.

IV. Duration of the Evaluation

The overall timeline for the evaluation will be from February to March 2015. This includes the submission of the final report to PCI. The expected level of effort (LOE) in days is as follows:

No	Item	Time
1	Document Review for Evaluation Study Design	3
2	Submission of Final Study Design, including the sampling strategy, methodology(ies) to be utilized, analysis plans, and proposed work plan/timeline of key evaluation activities and deliverables (must be approved by PCI)	1
3	Data collection tools development, including validation testing	4
4	Field data administration	10
5	Data entry, cleaning and analysis	4
6	Presentation of key findings	1
7	Draft Report	8
8	Final Report (must be approved by PCI)	5

Timeline

Task	Dates
Desk study:	3-5 February
Preparation and travel	7 February
Data collection	8-22 February
Final Report Outline	20 February
Data Collection Process Review	22 February
Internal Data Quality Assessment	22 February
Data compilation	23-24 February
Draft report/Initial debrief	25 February
Report writing	26 Feb – 5 March
Draft Report send	5 March
Feedback	11 March
Final Report	16 March

V. Deliverables

The evaluation team is expected to deliver following items:

- Evaluation study design, including the sampling strategy, data collection protocol, and analysis plans
- Data collection tools/instruments
- Work plan for the evaluation, including specific dates for submission of key deliverables
- Raw and cleaned data in MS Excel format

- Data analysis outputs, including scripts for any quantitative analyses conducted with statistical software
- Outline detailing final report sections
- Documented case studies and success stories focused on adaptive livelihoods, BPBD involvement in communities, disaster awareness and preparation, to be included in the final report
- Draft evaluation report
- Final draft evaluation report
- Short presentation in MS PowerPoint or similar program on key finding to PCI staff

All of the listed deliverables must be approved by PCI prior to administration.

Note that the final evaluation report should have the following composition and should be no longer than 30 pages, excluding annexes:

- Cover page
- List of abbreviations
- Executive summary (1-2 pages maximum)
- Program background
- Evaluation objectives
- Evaluation methodology
- Evaluation Results (including successes and challenges)
- Finalized Indicator Performance Tracking Table (IPTT)
- Success stories
- Lessons Learned
- Recommendations
- Conclusions
- Annexes (raw data, photos, charts, graphs)

Annex 4: Final Evaluation Schedule

Date	Activity
9 – 10 Feb	Preparation Instrument Development Coaching Instrument Pre-Test
11 Feb	Briefing With Enumerator Attend Meeting Committee Meeting Pasar Bengkulu (Observation and Interview PO and MPA)
12 – 15 Feb	Interviews, FGDs and Questionnaire Data Collection in Bengkulu City
16 -18 Feb	Interviews, FGDs and Questionnaire Data Collection in North Bengkulu
19 – 22 Feb	Interviews, FGDs and Questionnaire Data Collection in Kaur
23-24 Feb	Data Analysis and Consolidation
25/27 Feb	Debriefing with PCI

Annex 5: Map of Drought Risk in Bengkulu



Source: BNPB website

Annex 6: Village Committee on DRR

District	Village/Kelurahan
Bengkulu City	Sumber Jaya
	Teluk Sepang
	Rawa Makmur
	Rawa Makmur Permai
	Beringin Raya
	Pasar Bengkulu
	Malabro
	Berkas
Bengkulu Utara'	Lubuk Tanjung
	Pasar Tebat
	Dsn Cakra)
	Urai
	Dusun Raja
	Air Padang
	Lais
	Lubuk Lesung
	Serangai
	Bintunan
Kaur	Batu Lungun
	Gedung Menung
	Merpas
	Pasar Lama
	Tanjung Besar
	Sekunyit
	Sumber Harapan
	Linau
	Benteng Harapan
	Muara Jaya

Annex 7: FGD Participants List

FGD IN DESA BERKAS

14 FEBRUARY 2015

No	Name	Village
1	Suniati	Berkas
2	Rahmania	Berkas
3	Seri hartati	Berkas
4	Eriyanti	Berkas
5	Tita	Berkas
6	Suryanti	Berkas
7	Dewi	Berkas
8	Yeni	Berkas

FGD IN PASAR TEBAT

18 February 2015

No	Name	Village
1	Susilianti	Pasar tebat
2	Almi	Pasar tebat
3	Rohana	Pasar tebat
4	Gadis	Pasar tebat

FGD IN LUBUK TANJUNG

18 February 2015

No	Name	Village
1	Biis mardini	Lubuk tanjung
2	Rika herlina	Lubuk tanjung
3	Yuliana	Lubuk tanjung
4	Jhon riadi	Lubuk tanjung
5	Teten	Lubuk tanjung
6	Yanti	Lubuk tanjung
7	Sri	Lubuk tanjung

FGD IN DUSUN RAJA DAN LAIS

18 February 2015

No	Name	Village
1	Marlina	Dusun raja
2	Kasmi s.	Lais
3	Muryati	Lais
4	Sukma wati	Dusun raja
5	Julian	Dusun raja
6	Partina	Dusun raja
7	Napipa	Dusun raja
8	Yuni suryati	Dusun raja
9	Mula wardani	Dusun raja
10	Piska pustika	Dusun raja
11	Nice lidya	Dusun raja
12	Nurhikmah	Dusun raja

FGD DI VILLAGE LUBUK LESUNG

18 February 2015

No	Name	Village
1	Ratna juwita	Lubuk lesung
2	Hasnimawati	Lubuk lesung
3	Dinda oyah utarni	Lubuk lesung
4	Siti budriah	Lubuk lesung

FGD IN LINAU

20 February 2015

No	Name	Village
1	Herlina	Linau
2	Neni	Linau
3	Herlina s.	Linau
4	Dahlema	Linau
5	Rosis	Linau
6	Eka	Linau
7	Lovita sari	Linau
8	Faurita	Linau
9	Samsi	Linau

FGD IN VILLAGE TANJUNG BESAR

20 February 2015

No	Name	Village
1	Agustina	Tanjung besar
2	Mizar nayeti	Tanjung besar
3	Rapiah	Tanjung besar
4	Siti	Tanjung besar
5	Dahnier	Tanjung besar
6	Gindrawati	Tanjung besar
7	Juhariyah	Tanjung besar

FGD in Rawa Makmur

No	Name	Village
1.	Meti	Rawa makmur
2.	Helmi ningsih	Rawa makmur
3.	Meri	Rawa makmur
4.	Rahmawati	Rawa makmur
5.	Walima	Rawa makmur
6.	Yati	Rawa makmur
7.	Yani	Rawa makmur
8.	Lisda	Rawa makmur
9.	Eliyanti	Rawa makmur
10.	Seri arus	Rawa makmur

Annex 8: Endline Questionnaire

**FINAL EVALUATION CROSS SECTORAL STRATEGIES FOR CLIMATE CHANGE
AND DISASTER RISK REDUCTION (CADRE) PCI**

Respondent Data:

No. Ques:	Village :	Sub-District:
Name of Respondent:	Date:	Enumerator:
How long have stayed in the village:	Previous Village if Migrant:	

Profile of Household

No. Name	Age	Sex	Ethnic	Family Head	Join the interview	Education	Main job	Perkerjaan Sampingan
		1.Male 2.Fem.		1. Yes 2. No	1. Yes 2. No	1. SD 2. SMP 3. SMA 4. Univ 5. No school 6. Not finish Primary School 7. Others	1-Farmer 2-Fisherrfolk 3-Trader 4-Carpenter 5-Labourer 6-Employee 7-Public Service 8-Business Owner 9- Retired 10-Household 11-Honorary 12- Private company employee 13. None	1 Farmer 2-Fisherrfolk 3-Trader 4-Carpenter 5-Labourer 6-Employee 7-Public Service 8-Business Owner 9-Household 11-Honorary 12- Private company employee 13. None

1)								
(2)								
(3)								

(4)								
(5)								
(6)								
(7)								
(8)								
(9)								
Total HH Members * (9)								

Q.1 Household Characteristics and Assets

I. Housing conditions: Floor <i>Observation</i>	Soil ☐ 01 Wood..... ☐ 03 Bamboo ☐ 04 Cheramics ☐ 05 Cements..... ☐ 06 Others(mention) ☐ 07	
II. Housing conditions: Roof <i>Catat Observasi</i>	No Roof..... ☐ 01 Leaves ☐ 02 Zinc ☐ 03 Cheramics ☐ 04 Cements..... ☐ 05 Others(mention)..... ☐ 06	
III. Energy source for ccooking?	Electricity ☐ 01 Liquefied Petroleum Gas (LPG)..... ☐ 02 Natural Gas ☐ 03 Biogas ☐ 04 Carosine ☐ 05 Fuelwood ☐ 07 Others(mention)..... ☐ 08	

Q.2 FASILITY OWNED

i: Electricity	1: No 2: PLN3: Village Electricity 4: Generator 5: Solar
ii: Water Source	1: No 2: PAM 3: Village Water 4: Well 5. Spring 6:Others
iii. Bathroom	1: No Bathrrom and Toilet 2: Has BR and Toilet 3:Just BR 4: Just Toilet
iv: Telpn atau HP	1: No 2: Yes
v: Television	1: No 2: Yes

VI. Do you own the following?	Yes Unit Use No	
a. Bicycle	1 ----- ----- 2	
b. Motorcycle	1 ----- ----- 2	
c. Car	1 ----- ----- 2	
d. Boat with engine	1 ----- ----- 2	
e. Boat without engine	1 ----- ----- 2	
Q.3. Income	Rp 200,000 – 750,000 ☐ 1 Rp 750,001 – 1,500,000 ☐ 2 Rp 1,500,001 – 2,000,000 ☐ 3 Rp 2,000,001 – 2,500,000 ☐ 4 > Rp 2,500,001 ☐ 5	
Q.4. Main source of income:	Agriculture ☐ 01 Fisheries ☐ 02 Petty traders..... ☐ 03 Public service ☐ 04 Private employee..... ☐ 05 Labourer ☐ 06 Pension ☐ 07 Others (Please specify) _____	
Q.5. Does your household own land for farming?	Yes.. ☐ 1 No ☐ 2	
Q.6. What is the size of land owned?	Total..... ____ ____ Home ____ ____ Rice ____ ____ Garden ____ ____ Fish Fond..... ____ ____ Shrimp Pond..... ____ ____ Others(mention) ____ ____ Not own land ____ ____	

Q.7 Does your household own livestock?	1. Yes 2. No Cow ____ ____ Buffalo..... ____ ____ Goat ____ ____ Sheep ____ ____ Chicken..... ____ ____ Others(mention) ____ ____	
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Q.8 DISASTER RISK

Q.8.1. Do you think that your residence locate in a vulnerable location?	Yes. ☐ 1 No..... ☐ 2	
If Yes, what are the vulnerability factor?	1. 2. 3.	

Q.8.2. In the last 1 year, which disasters did you encounter?

Vent	Yes / No	Impact
a. Earthquake		
b. Tsunami		
c. Floods		
d. Abrassion		
e. Drought		
f. Landslide		
g. Storm		
h. Extreme weather		
i. Volcano		
j. House Fire		
k. Forest Fire		
l. Social conflict		
Others(mention) 1. 2. 3.		

Q. 8.3. Based on the above question, which disaster that you consider as the most serious impact?

- 1.
- 2.
- 3.

Q.9 In your household experiences, in the event of disasters, which parties that have ever help?

Party	Prior to 2013 (☑)	After 2013 (☑)	Describe those prior to 2013	Describe those after 2013
a. BPBD/BNPB (Diaster Agency)				
b. Local Government				
c. Army				
d. NGOs non PCI				
e. PCI, CADRE, KabaHill and Committee				
f. Private Company				
g. Religious Organization				
h. Others(mention)				

Q.10 If you have financial difficulty, where did you get help from? a. House damage b. Agriculture Land Damage c. Harvest failure b. Cannot fishing because of extreme weather c. Lost of livelihoods/livestock d. Finance needs f. _____ Lainnya	<i>(1) Extended family members; (2) Neighbor; (3) Friends (4) Village official(s); (5) Adat (customary) leader; (6) Religious leader; (7) Employer; (8) Money lender (9) collector/locally known as toke; (10) bank; (11) pawnner; (12) Cooperative (13)Not applicabe</i> 1 2 3 4 5 6 7 8 9 10 11 12 13 1 2 3 4 5 6 7 8 9 10 11 12 13 1 2 3 4 5 6 7 8 9 10 11 12 13 1 2 3 4 5 6 7 8 9 10 11 12 13 1 2 3 4 5 6 7 8 9 10 11 12 13 1 2 3 4 5 6 7 8 9 10 11 12 13 1 2 3 4 5 6 7 8 9 10 11 12 13
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Q.11 PARTICIPATION IN CADRE PROGRAM

i. Does your household member(s) join the CADRE PRogram?	Yes. ☐ 1 No..... ☐ 2	
ii. Since when did your household member(s) join?	0 – 1 tahun..... ☐ 1 1 - 2 tahun ☐ 2 2 – 3 tahun..... ☐ 3	

Q.12 Where did the HH member obtain information about disaster (mitigation, preparedness and prevention)?

Information source	Prior to (☑)	After 2013 (☑)
Government		
Neighbour		
TV		
Radio		
PCI/KabaHill/Komite		
Newspaper		
Movie		
Others		

Q.13 ATTITUDE TOWARD DISASTER

No	Statement	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	Not known (5)
1	In a disaster, the appropriate behaviour is just waiting and no need to do preparedness/mitigation					
2	Every family needs to have simple safety and evacuation to anticipate disaster risk					
3	Every member of society need to engage actively in the meetings on disaster risk reduction in their neighborhood					
4	At least 1 member of HH need to learn about disaster risk and first aid					
5	Every member of society need to actively engage in disaster mitigation and risk reduction					

Q.14 Attitude on Disaster Risk Reduction

No	Behaviour	Yes (1)	No (2)
1	HH needs to have safety and evacuation plan in the event of disaster.		
2	HH own their own equipment for safety and evacuation		
3	HH need to store water and to prepare water (quality and quantity) in the event of disaster		
4	HH need to have readiness for clothing and other personal needs prior to disaster.		
5	If plan to build a house, it is better to choose location that have distance from beach and in the area of safe zones		
6	Adjust building, floor and drainage		
7	HH have prepared saving/insurance in the disastrous event		
8	If a disaster occur, our HH has families, friends inside/outside the village to help		

Q.15 Did your household member(s) participated in the following activities? (in the last 12 months)

No	Participation	Never	Rarely	Often	Always
1	Actively involve in meetings for preparation and planning on disaster risk reduction				
2	Active in trainings or simulation on disaster risk reduction				
3	Participate in collective action to improve drainage or sanitation for disaster risk reduction				

4	Participate actively in building facilities related to disaster risk reduction				
---	--	--	--	--	--

Q.16 Participation in Trainings/Education Activities

No	Participation in	Which agency?	No pernah	1 x/ tahun	2x /tahun	Lebih dari 2 x /tahun
1	Trainings on identification of vulnerability/causal factors					
2	Trainings on disaster risk					
3	Evacuation/Simulation training					
4	Discussion on disaster risk reduction					
5	Training on disaster preparedness					
6	Training on alternative livelihoods (MPA)					
7	Education through film and other media					

Q.17. Understanding on disaster indicators

No	Disaster Sign	Yes (1)	No (2)
1	Do you understand the sign of tsunami? If Yes Please mention 2 signs: 1. _____ 2. _____		
2	Do you understand the sign of floods? If Yes Please mention 2 signs:		

	1. _____ 2. _____		
3	Do you understand the sign of earthquake? If Yes Please mention 2 signs: : 1. _____ 2. _____		

Q18. Program Impact

No	Impact Indicator	Yes (1)	No (2)
1	Do you consider that at present HH vulnerability has decreased compare to condition 3 years ago?		
2	Disaster preparedness has improved		
3	Knowledge on disaster and strategies to respond enhanced?		
4	Do you practice alternative livelihoods and adaptive (MPA, PO)		
5	Do you think that your HH has income source in the event of disaster?		
6	Do you think that DRR strategy has accommodated local custom and practices?		
7	Do you think that DRR strategy has accommodated local custom and practices: mitigation?		
8	Do you think that DRR strategy has accommodated local custom and practices? Preparedness		
9	Our community has implemented simulation or evacuation training once in 6 months		

Q19 Is there any other program impact in your areas? If yes please mention

1.....

2.....

3.....

Q19.1 Are the above impact disseminated)?

.....

Q.19.2. Has there any negative impact as a resut of the program?

.....

Q.20 Institutions

Questions	Yes	No	Not known
1. As far as you understand, has there a local government regulation on disaster risk reduction			
2. Has BPBD implemented activites related to disaster in this area?			

Q.21. Committee Capacity

No	Capacity	Yes (1)	No (2)	No Tahu (3)
1.	Is there a community committee for DRR and CC?			
2.	Has the committee implemented the following activities? a. Training on disaster and climate changes b. Enhance community cooperation for building facilities related to disaster mitigation/preparedness c. Disseminate information on DRR and CC through fm or other media d. Conduct simulation or evacuation			
3	Are you a member of committee?			
4	If yes, did you attend vulnerability mapping training? Did you attend training on DRR Action Planning?			

Q.22 In terms of agriculture, did you apply the following agriculture techniques?

Agriculture Technology	Prior to 2013(☑)	After 2013 (☑)	Describe prior to 2013	Describe after 2013
1. Use of HYV				
2. Use of local seeds that are able to adapt				
3. Use of organic manure				
4. Use of other organic fertilizer				
5. Use of MOL				
6. Use of verticulture				
7. Non-chemical pesticides				

8. Use of domestic waste for planting media				
9. Integrated agriculture				
10. Home garden for vegetable				
11. Irrigation				
12. Other technology				

Q.23. Of the above, what are the impact for your HH?

Activities/Agriculture Technology	What are the result?
1.	
2.	
3.	
4.	

Q. 24. How do you rate production and price of agri products of the HH?

Agriculture Production	Present Production	Present Price	3 years ago production	3 years ago price
a. Food crops production				
b. Cash Crops production				
c. Fishery production				
d. Livestock production				
e. Post harvest processing				
f. Others				

Category: High Medium Low

1 2 3

Q.25 How much are the product for consumption and sale?

Consumption : %

Sale :%

Q 26. Do you have saving as a result of agriculture activities or MPA?

Yes No

1 2

If yes, do you mind to mention?

Rp:.....

Q.27 Gender aspect and other vulnerable groups

Aspect	Yes	No	No tahu
1. Do women have equal opportunity in the program training			
2. Do women have equal opportunity for MPA?			
3. Do women have equal opportunity for being leaders in the committee/groups?			
4. Does program respond to diffable needs?			

Thank you

Annex 9: FGD and Interview Guide

Introduction about the evaluation and the objectives of the focus group discussion.

Thank you for your time in this FGD. The FGD is part of final evaluation of the CADRE which was implemented by PCI in Bengkulu.

The rules for the discussion:

- One person should talk at a time.
- We must welcome different points of view.
- Your participation is completely voluntary. You do not have to agree to share any information, and you can stop participating in the FGD at any time.
- There is no right or wrong answer during discussion, and everyone's opinion matters. You should feel free to express their feelings and to voice their opinions.
- At any time, feel free to ask questions to be repeated, give suggestions on how to improve the discussion, and ask to stop/break the discussion if necessary.
- Information gathered will not be used for personal use and your name will not be disclosed.

For Beneficiaries

1. Disaster Risk

- a. What type of disaster risks that may affect this area?
- b. When was the last disasters and how have these impacted the community and livelihoods?
- c. What type of responses have been practiced by community members in the event of disasters?

2. Livelihoods and Disaster Risk

- a. What are the main livelihoods in this area?
- b. What are the main agricultural products, livestock and fisheries in the study sites?
- c. Are the products for consumption or sale? What are the proportion of the sales and self-consumption?
- d. What technology have been practised? Which agencies do provide supports for livelihood empowerment?
- e. In the event of disaster and climate changes, what are the impact being encountered by farmers/fishermen?
- f. Is there any other shocks that are encountered?

3. Access for basic services and financial capital?

- a. How are the community members' access financial services?
- b. What about other basic services/facilities ie. Water electricity, health services etc?
- c. How are the infrastructures conditions?
- d. In terms of agricultural supplies/support, where do the community member gain such support from?
- e. Who have access to land, sea or other natural resources?

4. Participation in the Program

- a. Did you ever take part in the CADRE program?
- b. What training activities did you followed?
- c. After participating in the program, is there change in livelihood?
- d. Has there a program of activities impacted on livelihoods and food security especially of those vulnerable groups?
- e. How does the current agricultural production compared to 3 years ago?
- f. Has there an increased of income compared to three years ago? Has adaptive livelihoods practiced? What are the current sources of income? Has income diversification achieved?
- g. What activities did you join in relation to disaster response?
- h. Has there been a change in attitude towards disaster?
- i. Has there been a change people's behavior in terms of disaster preparedness?

5. Sustainability

- a. After joining trainings, has there any changes on skills following the training implementation?
- b. What skills / skill that can be maintained or improved after the program?
- c. Which capacity has been built among stakeholders that promote sustainability?

6. Groups and network

- a. Has there an enhancement among households and between villages?
- b. With whom do you have network at present?
- c. What groups do exist in the village?
- d. Which groups are engaged in livelihoods?
- e. Has there any group associated with disaster response?
- f. Does the group have clear rules and mechanisms, including management?
- g. Does the group have both horizontal and vertical networks?
- h. What activities have been implemented to increase the capacity of the group?
- i. Have the group increased capacity for disaster risk reduction, emergency response including mitigation and prevention?

7. Gender Aspect

- a. In a disaster event, is there any different experience of men and women?
- b. Do women participate in meetings / trainings on disaster management? Are there barriers to women's participation?
- c. How are task division between women and men within household?
- d. Which resources can be accessed by women and which can be accessed by men? (Is there is a difference on access to these resources)

- e. How did women participate in disaster training?
- f. Are there barriers to women's participation? If there is, what are those barriers?
- g. What efforts have been made to reduce / overcome it? How is the result?
- h. What are the advantages received by women in the project?

Interview Guide for BPBD

1. Relevance

- a. What type of disaster risk are common in Bengkulu?
- b. What activities are carried out by the PCI - CADRE along with BPBDs?
- c. Is the program relevant to the Bengkulu needs?

2. Program Impact:

- a. Did the program have an impact on the formation of DRR committee and action plan?
- b. Does the program have a reduced disaster vulnerability threats?
- c. Does the program contribute to the livelihoods?
- d. To what extent did the program impact prevention, mitigation and disaster preparedness?
- e. Did the program have an impact on civil society?
- f. Did the program have an impact on the capacity BPBDs / local government?

3. Capacity of BPBD

- a. Did BPBDs conducted strategic planning? Did the program helped the implementation of strategic planning workshop?
- b. Has there an increased capacity BPBDs compared to condition in 3 years ago? Has program facilitated trainings and capacity building of BPBDs?
- c. Do you already have a regional initiative for disaster resilience village?
- d. Is there an adequate budget allocation for DRR in the area?
- e. Have there been any evacuation drills?

4. Disaster Risk Reduction for School

- a. Has BPBD engaged in promotion of school disaster preparedness?
- b. Has disaster preparedness and climate changes included in the school curricula and extra-curricula activities in school?
- c. Has school practiced disaster preparedness?

A. Interview with School Principals, Teachers and Office of Education

1. Relevance

- a. Is your school vulnerable to disasters?
- b. Has the school ever experienced disaster event? If yes, when was it and how bad was the impact?
- c. What efforts have been made to respond the needs for emergency and rehabilitation, related to past disaster?

2. Participation in CADRE/PCI

- a. Did this school participated in CADRE activities? If yes, which activities?
- b. Did the school representative attended disaster preparedness training?
- c. Did the school representative attended disaster prevention and mitigation trainings?
- d. What activities have been conducted for teachers and students?
- e. Has school prepared evacuation route?
- f. Has the school practiced disaster simulation?
- g. Has vulnerability to disasters been reduced?
- h. What are other impact as a result of participation in CADRE program?

FGD with Committee

1. Roles of Committee

- a. When was the committee established?
- b. What was the reason for the formation of the committee?

2. Capacity Development of Committee

- a. What training activities have been participated by the committee?
- b. How has the committee prepared village level DRR and to what extent did the BPBDs supported the committee
- c. Has committee prepared vulnerability map and DRR action plan?
- e. What activities have been conducted to develop committee capacity?

3. Effectiveness

- a. Had the program covers all vulnerable families in this location?
- b. Has the participating household received agricultural training or other activities?
- c. How has access to food improved as a result of program?
- d. Has lesson learned disseminated to other families in the community?
- e. What was the successes and challenges encountered by the program?
- f. Has the program enhanced knowledge for households/community members in terms of prevention, mitigation and disaster risk reduction?

4. Challenges

- a. What are the challenges faced by the committee?
- b. Is there barriers for women to be member of the committee or become group leaders?

5. Policy and Sustainability

- a. Do you think that the committee will sustain?
- b. Has there any government policy to support sustainability of the committee?