



# **Climate Adapted Local Development and Innovation Project - VIE/033**

**Compendium of Project Interventions and Results**

**2014 - 2017**



 VIETNAM - LUXEMBOURG   
DEVELOPMENT COOPERATION



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### **2014 - 2017**

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# FOREWORD

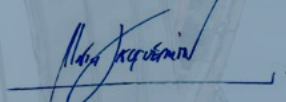
*The Climate Adapted Local Development and Innovation Project (CALDIP) was a 10 million Euro project co-funded by the governments of Luxembourg and Vietnam, and implemented in the central province of Thua Thien Hue, from 2013 to 2017.*

*CALDIP targeted some 400,000 people in 29 lagoon and littoral communes. The project aimed to support communities and local government in dealing with the many challenges posed by climate change, with a specific focus on protecting, diversifying and enhancing people's livelihoods.*

*The final evaluation scored the project highly on all five OECD/DAC criteria of relevance, effectiveness, efficiency, sustainability and impact. And a significant body of data evidence confirms that the project achieved some impressive results.*

*The purpose of this Compendium, therefore, is to try and give a comprehensive picture of WHAT this project did, WHY and HOW, to achieve those results. As such, it can be a resource for government and other agencies facing similar challenges to protect their people's environment, lives and livelihoods within a context of ever greater climate threats.*

*On behalf of Lux-Development I take this opportunity to thank our host and counterpart, the Thua Thien Hue Department of Planning and Investment, and our many partners in government, civil society and the private sector that we worked with over the years. Without our close cooperation and partnership this project could not have achieved the results it has.*



Dr Alain Jacquemin  
Chief Technical Coordinator

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# ACRONYMS

<b>AWPB</b>	Annual Work Plan and Budget
<b>BA</b>	Blind Association
<b>CAE</b>	Centre for Agricultural Extension
<b>CALDIP</b>	Climate Adapted Local Development and Innovation Project
<b>CAW</b>	Centre for Advancement of Women
<b>CBET</b>	Community-Based Ecotourism
<b>CBO</b>	Community-Based Organisation
<b>CCA</b>	Climate Change Adaptation
<b>CF</b>	Commune Facilitator
<b>CPC</b>	Commune People's Committee
<b>CPM</b>	Centre for Preventive Medicine
<b>CSRD</b>	Centre for Social Research and Development
<b>DA</b>	Delegation Agreement
<b>DARD</b>	Department/Division of Agriculture and Rural Development
<b>DF</b>	District Facilitator
<b>DIB</b>	District Implementation Board
<b>DOIT</b>	Department/Division of Industry and Trade
<b>DOLISA</b>	Department/Division of Labour, Invalids and Social Affairs
<b>DONRE</b>	Department/Division of Natural Resources and Environment
<b>DOET</b>	Department/Division of Education and Training
<b>DOHA</b>	Department/Division of Home Affairs
<b>DOST</b>	Department of Science and Technology

<b>DOST</b>	Department of Science and Technology
<b>DPI</b>	Department of Planning and Investment
<b>DRR</b>	Disaster Risk Reduction
<b>FCZ</b>	Fisheries Conservation Zone
<b>FU</b>	Farmers Union
<b>FA</b>	Fishery Association
<b>FGD</b>	Focus Group Discussion
<b>GE</b>	Gender Equality
<b>Ha</b>	Hectare
<b>HH</b>	Household
<b>ICM</b>	Integrated Crop Management
<b>IDI</b>	In-Depth Interview
<b>IEC</b>	Information Education and Communication
<b>ILO</b>	International Labour Organisation
<b>ISO</b>	International Organisation for Standardisation
<b>KAP</b>	Knowledge Positive Attitude and Practice
<b>LPPP</b>	Local Participatory Planning Process
<b>LUXDEV</b>	Luxembourg Development Cooperation Agency
<b>M&amp;E</b>	Monitoring and Evaluation
<b>MEDC</b>	Monitoring Evaluation Documentation and Communication
<b>N/A</b>	Not Applicable
<b>NRDP</b>	National Rural Development Programme

# ACRONYMS

<b>OECD/DAC</b>	Organisation for Economic Cooperation and Development/Development Assistance Committee
<b>OM&amp;M</b>	Operation Maintenance and Management
<b>OSS</b>	One Stop Shop
<b>PPC</b>	Provincial People's Committee
<b>PPMB</b>	Provincial Project Management Board
<b>PRA</b>	Participatory Rural Appraisal
<b>RAMM</b>	Risk Assessment and Management Matrix
<b>RM</b>	Risk Management
<b>S&amp;R</b>	Search and Rescue
<b>SASA</b>	Start Awareness Support Action
<b>SEDP</b>	Socio-Economic Development Plans
<b>SMART</b>	Specific Measurable Achievable Relevant and Time-bound
<b>SAFFE</b>	Station for Agriculture Forestry and Fisheries Extension
<b>SME</b>	Small and Medium-sized Enterprises
<b>SWM</b>	Solid Waste Management

<b>TAO</b>	Technical Assistance Office
<b>TAIPP</b>	Technical Advisor on Physical Infrastructure Planning and Procurement
<b>TOT</b>	Training of Trainers
<b>TTH/TT Hue</b>	Thua Thien Hue Province
<b>VA</b>	Veterans' Association
<b>VAWG</b>	Violence Against Women and Girls
<b>VietGAP</b>	Vietnamese Good Agricultural Practice
<b>VDB</b>	Village Development Board
<b>VDP</b>	Village Development Plans
<b>VETI</b>	Vietnam Entrepreneur Training Institute
<b>VND</b>	Vietnamese Dong
<b>VT/VTS</b>	Vocational Training
<b>VTs</b>	Vocational Training School
<b>WU</b>	Women's Union
<b>YU</b>	Youth Union
<b>3R</b>	Reduce Reuse Recycle

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SECTION A

# INTRODUCTION

# 1. PROJECT OVERVIEW

Started in the summer of 2013, the Climate Adapted Local Development and Innovation Project (CALDIP, VIE/033) was a four-year 10 million Euro project jointly funded by the Governments of Vietnam and the Grand Duchy of Luxembourg. It built further upon the successes of project VIE/023, the Quang Dien Local Development Project (2007-2012), which was the first project in TT Hue province implemented according to Vietnam's Hanoi Declaration and Government Decree 131 on increased decentralisation.

The project targeted about 400,000 people with special focus on the most vulnerable households, living on 124,000 ha of land and 22,000 ha of lagoon area in 29 poor and vulnerable communes (coastal, lagoon, low land) in the three districts of Quang Dien, Phu Vang and Phu Loc in TT Hue province. These districts were characterised by persistent high levels of poverty, limited opportunities to build livelihoods, and an increasing vulnerability to the manifestations of climate change such as more frequent and more violent storms, more severe floods in the rainy season, and increasing droughts in the dry season. These three districts significantly differed in orientation and dependency on urban opportunities: Phu Vang was in many socio-economic respects the periphery of Hue City, Phu Loc was urbanising through investments in the tourism sector, while Quang Dien remained mostly dependent on insecure agriculture and migration. At the start it was estimated that about 6,000 of the poorest and most vulnerable households would directly benefit from project interventions, while up to 50,000 households would gain from better adaptation, protection and diversification, and increased efficiency and sustainability.



Local participation was a key principle of the project throughout, and enabled households to be more creative and self-reliant according to their aspirations, abilities and resources in the process of planning and implementing 'hard' and 'soft' activities. This, then, gave paramount importance to the Local Participatory Planning Process (LPPP), in which district, commune and village actors (communities, government agencies, mass organisations, cooperatives, schools...) would determine local needs and key challenges in the context of climate change, and what activities would help alleviate these needs and overcome these challenges. Following this local planning process in all villages and communes, project stakeholders identified 10 essential, broad areas of intervention (called 'Tasks'), with a range of possible activity areas under each such Task to be considered and to contribute to the project's overall objectives. As such, the project strategy was broadly targeted at community and local government awareness and capacities, public services, infrastructure, improved livelihoods, increased protection, natural resource management, new technologies, and on and off farm employment.

The project's **Overall Objective** was formulated as "To assist sustainable, equitable and efficient trends of poverty reduction and adaptation to environmental and climate change in socio-economic development in lagoon and coastal communes of the three target districts in TT Hue province".

The project's **Specific Objective** was formulated as "To reduce poverty rates among the poorest areas, and to reduce damage in the most vulnerable areas".

Project interventions were expected to focus on, and achieve **Results** in three distinct areas:

- (i) Improved knowledge, community and government management, systems and assets for adaptive socio-economic development and poverty reduction
- (ii) Increased protection, availability, resilience and use of natural resources; and
- (iii) Development of more diverse, efficient and market competitive productive activities.

To achieve results in these three areas, the **10 broad Tasks** that were identified are in the table below.

The project organisational structure consisted of a Provincial Project Management Board (PPMB) established by the provincial leadership within the Department of Planning & Investment (DPI), three District Implementation Boards (DIBs) established by the District People's Committees (DPCs) in project target districts, and a LuxDev Technical Assistance Office (TAO) to support and work along these counterpart project management units. A network of 29 Community Facilitators (CFs), one for each commune, was established to further support project implementation on the ground. All staff on the counterpart side supporting project implementation were existing government staff, and no additional long term consultancy support was hired.

Project progress and results were tracked by a Monitoring and Evaluation (M&E) system consisting of 29 indicators. Three of those indicators tracked progress and impact in the project's Specific Objective to reduce poverty rates, and reduce the impact from climate change events. Further detail on monitoring outcomes and results is included in Section B.

<b>OVERALL OBJECTIVE</b>	
Assist sustainable, equitable and efficient trends of poverty reduction and adaptation to environmental and climate change in socio-economic development in lagoon and coastal communes of the three target districts (Quang Dien, Phu Loc and Phu Vang) in TT Hue province	
<b>SPECIFIC OBJECTIVE</b>	<b>Indicator No</b>
To reduce poverty rates among the poorest areas, and to reduce damage in the most vulnerable areas	1, 2, 3
<b>Result No 1: CAPACITY - Improved knowledge, community and government management, systems and assets for adaptive socio-economic development and poverty reduction;</b>	
<b>Task 1:</b> Strengthen COMMUNITY MOBILISATION AND OWNERSHIP in support of adaptive local development;	4, 5
<b>Task 2:</b> Develop and/or improve TARGETED TRAINING PROGRAMMES (gender issues, environmental education, disaster preparedness/DRR/risk mitigation...);	6, 7, 8, 9
<b>Task 3:</b> Improve the quality and delivery of PUBLIC SERVICES, especially productive services, and ensure they effectively reach and support organised communities and beneficiaries	10, 11
<b>Task 4:</b> Plan and implement CLIMATE ADAPTIVE AND RESILIENT PHYSICAL INFRA-STRUCTURE in target areas, and ensure effective O&M systems are in place;	12, 13, 14,15, 16
<b>Result No 2: RESOURCES - Increased protection, availability, resilience and use of resources;</b>	
<b>Task 5:</b> Improve the living conditions of poor and vulnerable people in RESETTLED AREAS;	17, 18
<b>Task 6:</b> Actively promote and implement DEMONSTRATED INNOVATIONS FOR PROTECTION AND RECOVERY from floods and storms;	19
<b>Task 7:</b> Help reduce POLLUTION through community cooperation, management and action;	20, 21, 22, 23
<b>Task 8:</b> Develop and promote methods for participatory management, use and conservation on NATURAL RESOURCES	24
<b>Result No 3: PRODUCTION - More diverse, efficient and market competitive productive activities developed;</b>	
<b>Task 9:</b> Help improve production and yields in ADAPTIVE AGRICULTURE (farming, livestock, forestry, horticulture, aquaculture) and ensure greater diversity, resilience and equity including through innovation	25, 26
<b>Task 10:</b> Support people in target areas, especially young and most vulnerable people, to be better prepared for EMPLOYMENT in the salaried labour market (industry, services e.g. tourism, marketing...) or possible SELF-EMPLOYMENT (SMEs)	27, 28, 29

## 2. PURPOSE AND STRUCTURE OF THE COMPENDIUM

Four and a half years have passed since the start of VIE/033, and during that time the project received much praise for its focus and interventions, operational mechanisms, and results and impact on the ground. The company that conducted the Mid Term Review called it the best out of more than 100 projects they evaluated in the last 20 years, and the Final Evaluation scored the project highly on all key evaluation criteria of relevance, effectiveness, efficiency, sustainability, and impact.

The purpose of this Compendium, therefore, is to try and give a comprehensive picture of WHAT this project did, WHY and HOW, to come to those results.

As VIE/033 took a strong results-based management and monitoring approach, with the focus on outcomes as reflected in changes in people's lives rather than concrete interventions, we are presenting the project's key results upfront (**Section B**). These results are derived from three sources:

- (i) The project M&E system – which the Final Evaluation team called “an outstanding M&E system (...) exceptionally detailed and of high quality”.
- (ii) Randomised Control Trial report – done with a control group in a similar district that was not part of the project
- (iii) The project Final Evaluation report – key observations and findings by the final evaluation team, including on systems and mechanisms that the project put in place to support and facilitate project implementation and achieve the reported results.

Following this summary of overall outcomes and achievements in section B, we then aim to give an overview of the many concrete interventions, both hardware (small-scale infrastructure) and software, over the years (**Section C**). As the project planned and implemented some 180 activities and interventions every year, this section does not aim to be complete, but should give a flavour of the variety of interventions that were implemented – with details on why the activity was implemented, where and when, with which partner, and with what immediate and intermediate results.

Section C is divided into two parts:

- Part I on project “software” activities and results, grouped by intervention areas (10 Tasks)
- Part II on “hardware” (infrastructure) sub-projects, which gives a brief overview of how these sub-projects were selected, implemented and supervised, and what impact they had.

The data in section C are derived from Activity Implementation Plans, (software) Activity Completion Reports, INFRA completion reports, technical reports prepared by technical advisors, ad hoc in-depth assessments of specific project interventions, Baseline and Endline surveys and reports, the external Mid Term Review and Final Evaluation, and last but not least the project M&E system. The latter collected primary and secondary data bi-annually and annually, to measure progress against defined outcome indicators and as such informed management for possible adjustments in planning and implementation, and for reporting on progress and results.

The M&E system was put in place at the start of the project, based on a number of key documents designed by the project, including an M&E matrix with 29 outcome indicators, an M&E manual explaining how to make the system opera-



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tional, an M&E workplan, and M&E training materials and tools for data collection (questionnaires, checklists, templates), and for processing and analysis (SPSS and Excel databases). The system operated under the coordination of an M&E specialist and relied on the active involvement of project stakeholders, including a network of 29 community facilitators and many village and commune volunteers in target communes, for regular data collection. These M&E collaborators, mostly local government staff, received various trainings that enabled them to fulfil their tasks.

It should be noted that Section C only provides an overview of interventions that were implemented at field level, and that it does not reflect on a long list of other activities and actions that took place, especially in year 1, e.g. to inform and give direction to project stakeholders on what to plan and how to move forward. This includes a fair list of studies and assessments done by consultants, e.g. Commune Vulnerability and Capacity Assessments in each commune, a SWOT analysis of Community-Based Organisations in the project area, an assessment of fishing rights status, an assessment of agricultural product value chains, an analysis of supply and demand in the labour market and vocational training needs assessment, a study on solid waste collection and disposal, and development of waste management IEC materials, the technical design for an afforestation/reforestation programme, an assessment of law enforcement in aquaculture management, disease control and aquaculture waste water, and a study on women's access to productive resources.



## SECTION B

# SUMMARY OF PROJECT OUTCOMES





In this section we look at the outcomes and impact the project has had, based on data from three sources:

1. Indicators in the M&E Matrix
2. the Randomised Control Trial report
3. Key findings of the project Final Evaluation.

## 1. M&E INDICATOR PROGRESS AND RESULTS

Table 1 below is a summarised version of the M&E Matrix with data updated up to 31/12/2017. The Matrix is a results-based matrix with 3 indicators that were to monitor and measure progress and results in the project's overall objective, and 26 indicators that were to measure progress and results in the project's 10 broad 'Task' areas. Most, but not all indicators had annual and end-of-project targets set at the start.

The summarised table gives the results in each of these 29 indicators over the last four years. These indicators were systematically measured against the Baseline data collected in 2014, and from there on in conformity with the agreed schedule and frequency, and in the way described in the M&E Manual. For ease of use, all non-essential data in this Matrix - e.g. the type of data, collection methods, sources of verification, frequency of data collection, and responsibilities for collection, processing and analysis - were removed from this table.

One indicator, number 5, was dropped early on, as the focus and possible activities related to that indicator were cancelled because women's business groups at a lower than the provincial level were considered not feasible as per an assessment of the Women's Union. Thus, the number of indicators monitored over the years was 28.

All in all, data in the M&E Matrix demonstrate that out of these 28 regularly measured result indicators, 24 had achieved or exceeded their target by end 2017, whereas 4 did not.

Table 1: M&E Matrix as of 31/12/2017

Overall Objective:	Assist sustainable, equitable and efficient trends of poverty reduction and adaptation to environmental and climate change in socio-economic development in lagoon and coastal communes of the three target districts (Quang Dien, Phu Loc and Phu Vang) in TT Hue province								
RESULTS	Objectively Verifiable (proxy) Indicators	Unit of measurement	Baseline (2014)	Project Targets and Results Achieved					
				2015		2016		2017 / End of Project (EOP)	
				Target	Result	Target	Result	Target	Result
									ACHIEVED
	Outcome Indicators								NOT ACHIEVED
Specific Objective: To reduce poverty rates among the poorest areas, and to reduce damage in the most vulnerable areas	1) The total number of poor households (HHs) in target communes to be reduced by 25% (minus 1,387) by end of the project.	No. of HHs	5,549 poor HHs	4,994	4,334	4,439	7,821 (new multi-dimensional Poverty Line applied)	4,162	6,811(*)
	2) Number of resettled HHs in target communes with average monthly HH income ≤ 2 Mn VND to be reduced from 37.9% (baseline) to 20% in the final evaluation.	No. of HHs	1,156 (37.9% of 3,050 total HHs in resettl areas)					610	442
	3) Number of poor and near poor HHs in target communes suffering significant damage/loss caused by disasters (estimated in monetary values) to be reduced by 30 % on average by end of the project and as compared to the baseline.	No. of HHs	541 poor and 583 near poor HHs					379 poor and 408 near poor HHs	375 poor & 519 near poor HHs
RESULT N°1: CAPACITY: Improved knowledge, community and government management, systems and assets for adaptive socio-economic development and poverty reduction									
TASKS	Intermediate Outcome Indicators								
OUTCOME TASK 1: Strengthen COMMUNITY MOBILISATION AND OWNERSHIP in support of adaptive local development	4) Number of Fishery Associations in target communes that have established full ownership of their operations over project period	No. fishery assoc.	0	5	5	5	5	5	13
	5) Number of women 's business groups (established within Gender Equality Clubs) in target communes that have established full ownership of their operations over project period	No. groups	0	29	0	29	0	29	cancelled early on due to women's business groups not considered feasible at district level
OUTCOME TASK 2: Develop and/or improve TARGETED TRAINING PROGRAMMES (gender issues, environmental education, disaster preparedness/DRR/ risk mitigation...)	6) By end of the project, at least 25% of women in target areas report to have improved access to economic opportunities and/or have strengthened their livelihoods.	%		xx		xx		25	76.1
	7) By end of the project, the number of documented incidents of gender-based violence in target communes is reduced by 30%	No. incidents of GBV	86	77	35	69	33	60	7+
	8) By end of the project, at least 70% of gender equality trainees have participated in at least one post-training gender equality-related activity	%		50	92.9	60	98.2	70	97.6
	9) Percentage of primary & secondary pupils in target communes with improved knowledge, positive attitudes and practices (KAP) with regard to climate change and DRR is at least 70% by end of the project	%		50	62.7	60	87.1	70	92.5

RESULTS	Objectively Verifiable (proxy) Indicators	Unit of measure- ment	Baseline (2014)	Project Targets and Results Achieved					
				2015		2016		2017 / End of Project (EOP)	
				Target	Result	Target	Result	Target	Result
									ACHIEVED
	Outcome Indicators								NOT ACHIEVED
<b>OUTCOME TASK 3:</b> Improve the quality and delivery of <u>PUBLIC SERVICES</u> , especially productive services, and ensure they effectively reach and support organised communities and beneficiaries	10) Percentage of farmers in target communes who report to be satisfied with agricultural extension services is at least 80% by end of the project.	%		50	63.1	70	82.4	80	82.9
	11) Percentage of people in target communes who report to be satisfied with administrative services at one-stop shops supported by the project is at least 80% of people.	%		60	76.9	70	95.5	80	88.1
<b>OUTCOME TASK 4:</b> Plan and implement <u>CLIMATE ADAPTIVE AND RESILIENT PHYSICAL INFRASTRUCTURE</u> in target areas, and ensure effective O&M systems are in place	12) Throughout the project, 90% of planned, delegated INFRA sub-projects are completed on time as per the schedule in the Financing Agreements (FAs).	%		80	89	90	87	90	83.8
	13) Throughout the project, the percentage of actual cash payments by communities as local contribution to project-supported INFRA sub-projects is at least 90% of committed payments.	%		90	98	90	100	90	97.1
	14) Throughout the project, the percentage of INFRA sub-projects in target communes that have sufficient OM&M measures in place is assessed to be at least 90%.	%		90	91.9	90	96.7	90	98.6
	15) Area of productive land in target communes better protected against the impacts of climate change by project-supported INFRA sub-projects.	Ha	0		3,036.6		4,449.9		5,337.9
	16) Number of HHs in target communes directly benefiting, in one way or other, from project-supported INFRA sub-projects.	No. bene- ficiary HHs	0		16,466		25,192		29,155
<b>RESULT N°2: RESOURCES Increased protection, availability, resilience and use of resources</b>									
<b>OUTCOME TASK 5:</b> Improve the living conditions of poor and vulnerable people in <u>RESETTLED AREAS</u>	17) Percentage of HHs in resettlement areas that, overall, have substantially improved their living conditions, as per a composite indicator.	%		10	20.8	30	40	60	64.7
	18) By end of the project, children under 6 years old in resettlement areas have equal learning opportunities and conditions to children in other areas in target districts.	N/A- Quali- tative							Done by final evaluation team > Ref. FE report to be expected by mid-Jan 2018
<b>OUTCOME TASK6:</b> Actively promote and implement <u>DEMONSTRATED INNOVATIONS FOR PROTECTION AND RECOVERY</u> from floods and storms	19) By end of the project, the forestation/ reforestation area for increased protection in target districts and communes has increased by at least 100 ha.	ha	16,130	16,160	16,148.3	16,180	16,163.1	16,230	16,248.3

RESULTS	Objectively Verifiable (proxy) Indicators	Unit of measurement	Baseline (2014)	Project Targets and Results Achieved					
				2015		2016		2017 / End of Project (EOP)	
				Target	Result	Target	Result	Target	Result
									ACHIEVED
	Outcome Indicators								NOT ACHIEVED
<b>OUTCOME TASK 7:</b> Help reduce <b>POLLUTION</b> through community cooperation, management and action	20) By end of the project, the quality of surface water at aquaculture ponds and lakes that is compliant with TT Hue PPC Decision No 31/2011/QĐ-UBND has improved as per the required standards on at least 5 out of 6 parameters (NH3, H2S, 5%, pH, Alkalinity (K), Transparency) in at least 50% of sampled sites.	No. sampled sites	22.2%		33.3%		44.4%	50%	66.7%
	21) By end of the project, at least 3,000 HHs across target areas practise solid waste separation at source.	No. HHs		800	1,047	1,500	2,026	3,000	3,553
	22) By end of the project, the percentage of HHs in target communes that have their solid waste effectively collected has increased by 30%.	No. HHs	32,597	35,857	37,112	39,116	39,915	42,376	44,030
	23) By end of the project, the percentage of HHs in target communes using at least one renewable energy source has increased by at least 10%.	No. HHs	11,426					12,569	3,939
<b>OUTCOME TASK 8:</b> Develop and promote methods for participatory management, use and conservation of <b>NATURAL RESOURCES</b>	24) By end of the project, the area of Tam Giang-Cau Hai lagoon earmarked as Fisheries Conservation Zone has increased by 50%.	ha	316	379	567	442	567	474	567
<b>RESULT N°3: PRODUCTION More diverse, efficient and market-competitive productive activities.</b>									
<b>OUTCOME TASK 9:</b> Help improve production and yields in <b>ADAPTIVE AGRICULTURE</b> (farming, livestock, forestry, horticulture, aquaculture) and ensure greater diversity, resilience an equity including through innovation	25) Number of farming HHs in sampled areas that have adopted at least one new adaptive variety or technology introduced during the project period.	No. HHs	0		777		2,417		3,011
	26) By end of the project, the percentage of HHs in target communes that have access to a newly established or improved community-based savings & credit fund has increased by 15%.	%	8,615					9,907	9,697
<b>OUTCOME TASK 10:</b> Support people in target areas, especially young and most vulnerable people, to be better prepared for <b>EMPLOYMENT</b> in the salaried labour market (industry, services e.g. tourism, marketing...) or possible <b>SELF-EMPLOYMENT</b> (SMEs)	27) By end of the project, at least 20% of unemployed labourers who received vocational training through project support earn on average the minimum salary for labourers as per Decree 182/2013 of the GOV from off-farm economic activities.	%			51.6%	10%	84%	20%	88.3
	28) By end of project, no. of person-nights from tourist home-stays in target communes has increased by 20%.	%	2,683	2,737	3,051	2,898	2,144	3,220	2,172
	29) By end of the project, the percentage of SME-owned HHs that increased their annual income by at least 20% through project-supported improved operations or services is at least 10%.	No. SMEs		2%	31.8	5%	29.6%	10%	49.2%

(\*) Total no. poor HHs reduced by 2,225 (2015: 1,215 HHs or 21.9% vs. 2014; and 2017: 1,010 HHs or 12.9% vs. 2016). Exceeded EOP target of 1,387 HHs).

## 2. RANDOMISED CONTROL TRIAL

In 2014, the baseline survey interviewed a random sample of 904 households (HHs) in 13 of the 29 project target communes, and 196 HHs in 3 communes outside of project target districts. In late 2017, the endline survey interviewed a sample of 1,104 HHs, including the same 904 interviewed during the baseline and an additional 200 beneficiary HHs randomly selected from project target communes. In addition, to measure project impact on beneficiaries' lives versus a control group, a Randomized Control Trial (RCT) was conducted in January 2018, through a survey with the same 196 HHs interviewed during the baseline (the comparison group). The survey used the same questions as those of the baseline and endline surveys and questionnaire interviews were administered by the same team of externally recruited enumerators.

Specifically, this RCT examined the project's achievements vs. targets under the Specific Objective, based on the three project final outcome indicators (ref. project M&E Matrix, Table 1) related to household income, reduced poverty and vulnerability. Below is a brief summary of some key results of that study. The study in its entirety is also available.

### **2.1 Poverty trend in Comparison and Treatment communes**

Progress in poverty reduction in the project area was measured in two ways: annual secondary data of the relevant government department (DOLISA), and primary data collected through baseline and endline surveys, in target area (Treatment Group) as well as non-target area (Comparison Group).

Table 2 below shows the statistically significant differences in average monthly household income between Comparison and Treatment Group over time. At the time of the baseline (2014), this difference was minimal: an average 2,418,465 VND/month for the Treatment Group (TGroup) and 2,542,409 VND/month for the Comparison Group (CGroup). At the time of the endline survey (late 2017), both CGroup and TGroup showed a remarkable increase in average monthly income. However, the figure for the TGroup more than doubled, whereas for the CGroup it increased by just 26%. The increase gained by the TGroup in project target areas was nearly 2 million VND/month higher, and this difference can be attributed to project interventions

**Table 2: Average monthly household income (Unit: VND)**

Randomised Groups	Baseline (Pre)	Endline/Follow-up (Post)	Post-Pre Difference
Comparison Group (C)	2,542,409	3,199,366	656,957
Treatment Group (T)	2,418,465	5,126,562	2,708,097
<b>C - T Difference</b>	<b>(123,944)</b>	<b>1,927,196</b>	<b>2,051,140</b>

The "before versus after" income data mean that without project interventions, the average HH income in target areas would have increased by just 657,000 VND/month, whereas in reality it increased by 2,708,000 VND/month (rounded figures), roughly four times as much.

## **2.2 Reduced proportion of households with average income ≤ 2,000,000 VND per month**

The percentage of households assessed to be poor based on the criteria of the National Poverty Line 2011-2015 gives another interesting picture of poverty and poverty tendency between Treatment and Comparison Group over time. That single dimension poverty line 2011-2015 was based on an average income of ≤2,000,000 VND/month for a rural HH of five. Table 3 shows that the number of such HHs in the baseline accounted for 49.7% for the Treatment Group and 52.7% for the Comparison Group. From that time and over the following four years, the number of HHs having such low monthly income substantially decreased to 21.5% for the Treatment Group as compared to a more modest decrease to 38.3% for the Comparison Group. The C-T difference in the endline survey shows that the decrease of HHs with average income ≤2,000,000 VND per month is almost 17 percentage points larger for the T group than for the C group. The “with versus without” data indicate a decrease of poor HHs as per the previous 2011-2015 poverty line that is twice as large for the T group than for the C group (28.8 vs. 14.4). This difference is attributable to project interventions,

**Table 3: Number of households with average income ≤2,000,000 VND/month (Unit: %)**

Randomised Groups	Baseline (Pre)	Endline/Follow-up (Post)	Post-Pre Difference
Comparison Group (C)	52.7	38.3	(14.4)
Treatment Group (T)	49.7	21.5	(28.2)
<b>C - T Difference</b>	<b>(3.0)</b>	<b>(16.8)</b>	<b>(13.8)</b>

## **2.3 Reduced proportion of resettled households with average income ≤2,000,000 VND per month**

Resettlement areas are some of the poorest areas in project communes and, thus, were a particular target of project interventions. Resettled HHs are among the most vulnerable HHs, who used to live on their boats but were relocated to land for safety reasons. Given their large population of 3,050 HHs, poverty status and persistent vulnerabilities, it was critical to evaluate project impact on poverty reduction for this particular group. Here also, data analysis show substantial differences between resettled households in target vs. control area.

**Table 4: Resettled households' average monthly income (Unit: VND)**

Randomised Groups	Baseline (Pre)	Endline/Follow-up (Post)	Post-Pre Difference
Comparison Group (C)	2,743,730	3,524,943	781,213
Treatment Group (T)	2,208,820	5,377,649	3,168,829
<b>C - T Difference</b>	<b>(534,910)</b>	<b>1,852,706</b>	<b>2,387,616</b>

Table 4 shows a substantially higher average monthly income for resettled households in the control area than for those in the target area at the time of the baseline, with an average difference of 535,000 VND or around 24%. By the time of the endline four years later, however, the average monthly income of resettled HHs in the control area had increased by only 28% whereas for resettled HHs in the target area it more than doubled, from around 2.2 to almost 5.4 million VND, or a 143% increase.

The C-T difference (2,387,616 VND) means that whereas at the time of the baseline the average monthly resettled HH income of the TGroup was 24% below that of the CGroup, by the time of the endline survey, TGroup income in resettled areas was on average 52% above that of the CGroup.

**Table 5: Number of resettled households with average income ≤2,000,000 VND/month (Unit: %)**

Randomised Groups	Baseline (Pre)	Endline/Follow-up (Post)	Post-Pre Difference
Comparison Group (C)	42.9	23.1	(18.8)
Treatment Group (T)	37.9	14.5	(23.4)
<b>C - T Difference</b>	<b>(5.0)</b>	<b>(9.6)</b>	<b>(4.6)</b>

Further, Table 5 shows that at the time of the baseline both Comparison and Treatment Group had a minimal (5%) difference in the proportion of resettled HHs with average HH income ≤2 000 000 VND/month (poor as per the 2011-15 national PL): 42.9% vs. 37.9% of HHs respectively. By the time of the endline that 5% difference had further widened to 9.6% (almost doubled), indicating a much faster reduction in poverty rates in project resettlement vs. control resettlement areas.

## **2.4 Reduced loss/damage caused by natural disasters in most vulnerable areas**

To reduce the damage to, or loss of assets from natural calamities in the most vulnerable areas was one of the key expected outcomes of the project. This loss or damage was measured in monetary values by five variables: (1) loss of income; (2) loss of assets; (3) loss of production (crop, livestock, aquaculture); (4) health care and medical treatment costs, and (5) funeral costs for a deceased family member.

Aggregated data show that at the time of the baseline more than 1/3rd of all HHs in the Treatment Group (36.3%) as well as the Comparison Group (36.7%) had suffered 'certain damage' from natural disasters over the last three years. By the end of the project four years later, this proportion had in fact further increased, for the Control Group (7.7%) as well as the Treatment Group (18.5%), the latter reflecting the greater vulnerability of communes in the project target area, i.e. of course why they were selected for the project in the first place.

**Table 6: Average annual damage/loss caused by natural disasters (Unit: VND)**

Randomised Groups	Baseline (Pre)	Endline/Follow-up (Post)	Post-Pre Difference
Comparison Group (C)	2,715,785	2,043,333	(672,452)
Treatment Group (T)	4,114,824	2,738,944	(1,375,880)
<b>C - T Difference</b>	<b>1,399,039</b>	<b>695,611</b>	<b>(703,428)</b>

Interestingly, however, whereas the number of households affected by weather events in the last four years increased in both project and control area, the actual value of the damage declined, and indicated a statistically significant difference between the two groups:

At the time of the baseline, the average annual cost of damage of the TGroup was about 1.5 times bigger than that of the CGroup, whereas by the time of the endline survey, for the TGroup it had dramatically decreased by 33.4%, vs. just 24.8% for the CGroup.

Post-pre data indicate that in the absence of the intervention, households' damage due to natural disasters in project target areas would on average have decreased by only 672,452 VND per year, as compared to an actual reduction of more than double that amount (1,375,880 VND). That reduction can be attributed to a list of project interventions, including various Disaster Risk Reduction activities as well as 78 infrastructure sub-projects many of which were implemented for greater protection.

### 3. FINAL EVALUATION - KEY OBSERVATIONS

Below we present some of the key findings of the externally commissioned Final Evaluation, finalised in April 2018. First, we look at the consultants' assessment of project results against (i) the five main OECD/DAC evaluation criteria of relevance, effectiveness, efficiency, sustainability, and impact, and (ii) the three cross-cutting issues i.e. good governance, gender equality, and environment/climate change. Following this, we briefly reflect upon the evaluation team's assessment of some of the systems and mechanisms that were developed and applied by VIE/033 in support of effective project implementation, which they considered important tools and catalysts that enabled the project to achieve the results it had.

#### **3.1 Project assessment as per OECD/DAC evaluation criteria as assessed by evaluation team**

The OECD evaluation methodology uses a scoring of 1 to 6 for each criterion assessed, whereby the top score of 1 means the project has excellent results, significantly better than expected, and 6 means the project was unsuccessful.

**Figure 1: OECD project evaluation scoring system**


Evaluation scoring	
	1 Excellent results, significantly better than expected
	2 Above average results, performance in certain areas better than expected.
	3 Expected results but there is scope for improvement
	4 Below average results, clear need for improvement
	5 Red flagged, the Project needs to be urgently reviewed/restructured
	6 The Project was unsuccessful, or the situation has deteriorated on balance.



Figure 2 below presents the rating of the 10 project 'Tasks' against the five evaluation criteria, based on an assessment of 155 project interventions. These are then summed to produce an average score across all Tasks (in green boxes).

**Figure 2: Evaluation criteria ratings by Task**



**Key observations from the evaluation team, as presented in their wording in the report:**

**a. Relevance**

VIE/033 interventions were generally regarded as highly relevant. Most interventions received best ratings for relevance (scores 1 and 2). These excellent scores largely resulted from the identification and selection process through the local participatory planning process (LPPP). The LPPP assured that interventions were selected in accordance with real needs and priorities as perceived by the communities. All environmental tasks were relevant to the national and provincial environmental target as they encouraged forest plantation, water resource protection, solid waste recycling, and water-bodies conservation as well as climate change adaptation. The interventions also contributed to local socio-economic development and poverty reduction by providing income generation activities to the local people, especially the poor.

Hardware interventions were highly appreciated by the local residents. Kindergartens found the equipment provided by the project under Task 5 very useful, and it improved the quality of teaching and learning for children under 6 years old

in resettled areas. The trainings under Task 10 were relevant to the unemployed labourers. Implementing saline tolerant rice varieties was of particular relevance to Vinh Giang commune as the salinity in their fields increased over the previous years, and the poverty rate in the commune was particularly high.

Lower scores are given to some interventions such as water quality measuring test-kit because of complicated measuring procedures; inconvenient and unsuitable locations of several solid waste disposal sites; selection of inappropriate trees (Ben Tre coconut), etc. Whilst growing saline-resistant watermelons was highly relevant to the area as it specifically meant to target the most vulnerable and poverty stricken, this included a significant proportion from the older demographic who were not strong enough to grow watermelons. Therefore the relevance of receiving seeds and trainings was minimal for this demographic.

The average rating for relevance is 1.4.

#### **b. Effectiveness**

The project interventions were regarded to be highly effective. A proper design and implementation of interventions contributed to the achievement of the project results and objectives. Local capacity was much enhanced given the availability of various trainings, improved public services, and a number of infrastructure works funded by the project. A number of interventions aimed to improve the living conditions of the poor people in resettled areas, the protection and recovery from floods and storms, the reduction of pollution and the conservation of natural resources indicated that local resources were more protected and became more resilient to climate change. Numerous adaptive agriculture models and vocational trainings provided for the local residents in targeted areas helped to diversify their livelihoods and create more employment opportunities. The project maintained a good monitoring system which was updated regularly to guide the project implementation. In addition, a set of management tools such as detailed Implementation Plans of soft interventions, Activity Completion Reports, and progress reports of infra sub-projects was effectively used. The project's results and objectives were successfully achieved thanks to all these factors and the proper management and coordination of the project.

High rates of effectiveness were found in interventions such as the implementation of pesticide tanks as 73.53% of HHs commit to separating waste at source and 82.07% of the commune understands the importance of disposing pesticide waste correctly. Further examples include 80% of farmers who now understand how to reduce disease of livestock and pick good livestock breeds.

Lower rates of effectiveness were found in interventions due to the lack of practical training, the inappropriate nature of provision of goods, the reliance on contributions to finance, and external weather events. Local people were instructed how to make organic fertilisers in theory, but it was not practical enough for them to follow. Beneficiaries were given only 50-60 saplings of pink banana trees whilst they needed up to 700 to make a real difference to poverty. The contributory funding for FA patrol boats meant that only slower boats could be purchased; these boats cannot catch up to the boats that illegal fishermen have. External weather events also reduced the efficiency of crops such as watermelons.

The average rating for effectiveness is 1.9.

*Our consultation with various stakeholders and beneficiaries of about 155 interventions demonstrated that the project has been highly appreciated and effective. The project gained high scores on five evaluation criteria (ranging from 1.4 to 1.9) and cross-cutting aspects (ranging from 1.7 to 1.9). The importance of these scores is to be highlighted as a significant achievement of the project. (Dr Adam McArty, Final Evaluation Team Leader)*

### ***c. Efficiency***

The project has a high rate of efficiency. The project provided sufficient training, equipment and instructions for implementation. Implementing partners received proper and timely support and guidance from the project, which made their implementation run smoothly. The project spending followed the project budget plan and cost norms. In most cases, local regulations and cost norms were well adopted by the project. In general, the project duration & budget were adequate for implementation.

The efficiency was partly constrained by the delays in the implementation of certain activities. For example, people in Vinh Xuan commune recommended that the trees plantation under Task 5 should be done in February or March rather than after March. With the rapid rate of depletion of fish stocks, and the large problem of illegal fishing, it was frustrating for the fishermen in Vinh Xuan and Quang Loi communes to wait such a long period of time for the patrol boats under Activity T8A1. Only 1 out of 5 beneficiaries was successful with the Thai duck (Vịt Xiêm) model because the design and technical process seemed not very appropriate. The selected shrimp post species had uneven age, which resulted in low productivity.

The average rating for efficiency is 1.9.

### ***d. Sustainability***

A number of the project's positive results are likely to continue after the project ends given the relevance of the interventions, potential benefits brought to local people, easy application, commitments of local authorities and technical departments, and enhanced capacity through a wide range of capacity building interventions with beneficiaries, schools, mass organizations, government units and staff (including through delegation agreements). The LPPP was highly appreciated by local authorities and residents, and a LPPP manual was officially issued in 2016 and recommended for use. The National Assembly's revised Law on Fisheries included the recognition of FAs for co-management (and TTH was one of several places the National Assembly looked at). INFRA selection criteria were well adopted.

Other specific examples, among others, include Decision no. 84/2016/QĐ-UBND dated 15/12/2016 regulating the management of lagoon capture fisheries. Interviewed IPs shared that most of the project interventions were integrated into their regular activities, and some IPs may allocate funds for these activities from different sources (though the funds will be limited). Local beneficiaries were equipped with knowledge and skills through various trainings to maintain their activities. The level of ownership that fishermen hold over the associations ensured the support and growth of associations in the future. 100% of legal fishermen joined association and attended the meetings due to the highlighted benefits of membership. The contribution to establishing lagoon rights to each area sustained the advantages of joining the fishing association. The sustainability of employment of waste collectors was also solidified due to the Vinh Giang People's Committee enforcing the required regulation, organisation, and operation of the service. Besides, the establishment of copyright legislation on the Vinh Loc watermelon logo T9A2 is expected to have significant long term sustainable impacts on both direct project beneficiaries and alternate stakeholders not only due to the price increase experienced (from VND 3000 per kg to VND 9000 per kg), but due to the brand awareness and continued ability for this group to be price setters in the market. The white pearl onion model for vulnerable women was replicated in Sia town (Quang Dien) at 29 women's farms as well as being replicated by neighbours outside of the project's target.

The sustainability of solid waste classification was undermined, however, due to the lack of pilot models for them to follow, and/or small area of land that local households owned to apply this model. Several agriculture models were not likely

to be sustained due to their low productivity or not suitability to local conditions (salt resistant rice variety, Thien Uu 8 rice, eel breeding) among others. Being a testing model, the saline tolerant rice varieties, despite its relevance and initial good impacts on local livelihoods was notably vulnerable to a quick access from the project.

The average rating for sustainability is 1.8.

#### ***e. Impact (Short-term and long-term)***

Almost all project interventions had a very good impact on socio-economic development and natural environment. The Gender Club managers were able to apply the management and facilitation skills acquired from the project training courses to operate the Gender Clubs. All of the sampled fishermen understood the importance of protecting and managing local natural resources, as well as the urgency of doing so. Regarding CVCA exercise, the trainees were able to apply the key tools such as Crop Calendar and Risk Map of their village/commune into their disaster risk management and community planning as well. LPPP was trained for villages' and communes' officers, consequently 224 Village Development Plans and Commune Socio-Economic Development Plans for 2015-2020 were formulated using these techniques. SASA trainees were able to develop their SASA action plans and were able to resolve more gender-based violence cases at their communes. Living conditions of the poor and vulnerable in resettled areas were much improved.

Local people were equipped with skills, knowledge and productive resources to respond to more severe impacts of climate change. 100% of local fishermen using legal techniques want to be, and are, a member of the established Fishery Associations due to the increase in capacity building and focus on sustainable fish stocks. Illegal fishing has decreased by 70% in the sampled areas. The increase in income enabled poverty stricken households to sustainably improve their livelihoods with the enabled expenditure on motorcycles and TVs. Impacts from the saline resistant rice varieties have already been felt with a 30% increase in income for Vinh Giang beneficiaries, resulting from a 50% to 60% increase in productivity. The Women's Union credit fund enabled vulnerable women to invest into businesses and self-sustaining activities. Trainings in industrial sewing and cookery skills helped people find jobs in industrial zones or restaurants.

Tourism training is expected to have some negative impacts due to the increase of tourists that this will attract. Although this project will bring positive impacts in total, tourists are not expected to share the same environmental values as the beneficiaries and therefore environmental degradation and littering may occur. This was an important concern for the DOCI in Phu Loc. The big plus is that local stakeholders including tourism departments have understood that community based ecotourism in the lagoon is potentially huge for TTH (a real growth industry and alternative source of income for local people affected by climate change), and following a trip to Inle Lake Myanmar, leaders are also very well aware of the potential negative impacts large-scale lagoon based development could have.

The average rating for impact is 1.9.

### **3.2 Cross-cutting aspects as assessed by evaluation team**

In this section, observed interventions were rated from 1 to 6 (green boxes) in terms of three cross-cutting concerns: good governance, gender, and environment and climate change. As per the DAC political marking system (2=Principal objective, 1=Significant objective, 0=Not targeted to the policy objective), the three cross-cutting aspects below were considered 'Principal Objectives' for the project (blue boxes).

**Similar to the assessment against the DAC markers above, the wording in this section is copied from the final evaluation report:**



**Figure 3: Ratings for cross-cutting aspects by Tasks**

#### **a. Governance for development**

Governance for development has been a fundamental aspect throughout the project activities. This was highlighted through many tasks of linking community participation with project management. This was achieved successfully through the integration of the LPPP with government decision making processes. This integration enabled community participation to increase, as well as the level of ownership that the community felt towards developing the area and reducing poverty. Another good example is the project's specific interventions targeting improved governance such as delivery of trainings for district and commune One Stop Shop officers and staff and support to the establishment and application of quality management system according to TCVN ISO 9001-2008. Both poverty and vulnerabilities were successfully reduced over the project period, and are thought to be sustainable in many areas.

The average rating for governance for development is 1.9.

#### **b. Gender Equality**

Gender equality was also a fundamental aspect throughout the project interventions and successfully integrated. Whilst this was more obvious in activities directly promoted towards women, for instance the Women's Union's revolving fund, or training in gender and health, many other interventions worked towards decreasing the vulnerability of women. A minimum requirement for participation of women, with priority to most vulnerable women, was guaranteed in most interventions, and the focus has not been on gender equality alone, but gender and women's economic empowerment. In general, women participants in capacity building activities accounted for approximately 37% of total participants. Key interventions that improved gender equality were the capacity building sessions from the Women's Union, and other in-

interventions in Task 5 and Task 10 to enhance their awareness and income. Women seemed to disproportionately benefit from the project in comparison to men due to the higher representation in selected project beneficiaries.

Gender inequality was limited however due to the struggle of incentivising each gender to participate in activities that weren't traditionally done by their gender. This included getting women to attend FA meetings, which were 100% attended by men, even though many women played a key part in the fishing process. Other examples can be homestay cooking classes that were entirely attended by women, whilst men were out fishing. Although this was also meant to be a cross-cutting issue, many FGDs rated gender equality as not being applicable for their specific interventions.

The average rating for Gender Equality is 1.8.

### ***c. Environment and Climate Change***

Environment and climate change was also rated as fundamental. Nearly all interventions were seemingly carried out to directly or indirectly improve the capacity of beneficiaries to understand the importance of the environment, reduce current environmental damage, or increase the resilience to the effects of climate change. Result 1 (Task 4) and Result 2 had the most direct climate change and environment interventions that ranged from capacity building training to infrastructure works and adaptive agriculture models.

Some interventions led to an almost immediate improvement in the local environment such as infrastructure works. Additional models included community-based management of waste water systems that led to reduction in diseases, as well as the adoption of pesticide waste tanks which reportedly made the water visibly clearer. Importantly, due to the range of these implemented models, the capacity of the local population has increased and the majority of beneficiaries understood the importance of mitigating and adapting towards climate change.

There were some models that did not work as well as expected due to various reasons, and therefore reduced the resilience and capacity building of some beneficiaries.

The average rating of environment and climate change is 1.7.

## **3.3 Facilitating systems and mechanisms**

Below section describes some of the systems and mechanisms that the evaluation team highlighted as important tools that were developed and applied by the project, and contributed to the results presented supra.

### ***a. Planning process***

Considered an engine of local development, participatory planning and other participatory approaches became the cornerstone for project implementation and action.

A first critical element in the participatory planning process started with the development in 2013 of an overall Logframe Action Plan (LAP) 2014-2017, a four-year framework plan developed with participation of relevant stakeholders at various levels (province, districts, communes). This LAP was a simple tool to translate the overall aims, objectives and expected results as described in a 70-page project document into a simple 5-page Excel sheet that visualised and explained what to do in the coming four years, and how, to get to the expected results -- creating linkages between inputs, activities, outputs, and expected outcomes and impact.

Besides turning something bulky and complex into something concise and simple to understand, the process of developing this LAP in a participatory way also had the major advantage that it made all relevant stakeholders brainstorm and decide on the way forward to achieve results -- **together**. It not only provided stakeholders a tool for direction during their annual project planning workshops, but the process of LAP development first and foremost cleared stakeholders' minds on questions what the project is about -- what it would do, why and how -- and by doing so created understanding, partnership, ownership and commitment going forward.

Annual Work Plans and Budgets (AWPB) were every year prepared through 2-day participatory workshops with relevant stakeholders (government agencies, mass organisations, communes, cooperatives, associations, community representatives) at the district level. In these AWPBs, stakeholders proposed (software and hardware) activities and interventions under each Task and within the set budget for that Task and for that year. For each activity they identified the purpose, scope and quantity, venue, start and end date, agencies in charge, and a tentative budget. Besides the project LAP for general guidance, during their planning workshops stakeholders took direction from some other key instruments that were developed at an early stage in the project -- viz. the output of the Local Participatory Planning Process (i.e. commune SEDPs) and Commune Vulnerability Capacity Assessment (CVCA) reports that had been completed in all communes, reflecting local needs and priorities and thus ensuring that planned project interventions would be relevant to the beneficiaries and improve their livelihoods. When drafted, the AWPB of each of the three districts was presented and discussed with project management at the provincial level, and revised final drafts were again presented in ½ day wrap-up meetings with partners at the districts, for information and finalisation. The aggregated project AWPB for the year would be presented to the provincial leaders in a Steering Committee Meeting held annually, and formally approved.

Following the implementation of the LPPP, the province, through Decision 193/UBND-KH dd. 12/01/2016, committed to take the LPPP methodology and process to scale and plans to apply it in all villages and communes across TT Hue province. In addition, the project also supported commune authorities with a revision of their important New Rural Development Programme (NRDP) Master Plans, a major element in the government's aim for further decentralisation down to the commune level.

### ***b. Implementation through Delegation***

Within the wider context and spirit of the Paris Declaration on Aid Effectiveness (2005) aimed at increased government ownership and donor harmonisation and alignment, and in order to help strengthen government management and monitoring systems, the Government counterpart expressed an interest, and LuxDev a willingness, to consider a delegation of project implementation responsibilities to the counterpart. Hence, from the start the implementation of infrastructure sub-projects was delegated to the district counterparts, through what were called Financing Agreements. As per these agreements, the responsible counterpart agencies had full implementation and budget responsibility, while LuxDev closely monitored procurement processes and technical and financial aspects.

As from mid-2015, following a LuxDev corporate decision for further delegation of authority to partner agencies globally, Delegation Agreements for Financing and Implementation (DAs) were introduced as a possible tool and implementation mechanism. Consequently, VIE/033 integrated around 90% of its planned software activities into such DAs. Thirty-nine such agreements for software activities were signed with various partners at mainly district level and a few at the provincial level, along with three DAs for infrastructure to replace earlier FAs. Partner agencies were primarily the relevant government technical agencies but agreements were also signed with mass organisations like the Women's Union, vocational training centres, professional associations like the Fishery Association, and social organisations such as the Blind Association.

Considering the commitment and capacity of partner agencies in TT Hue, and the objectives for more local ownership and greater alignment with government systems and processes as committed through both Luxembourg and Viet Nam's signing of the Paris Declaration, this further delegation was a logical next step in a process where project structures and all activities were already fully integrated into the government system. The final evaluation team considered this further integration an important element that helped to make the project a success, especially in terms of greater ownership and therefore sustainability.

### ***c. INFRA Selection***

The project designed its own system to assess and rank INFRA sub-projects proposed by the local level. This is another mechanism that was appreciated by the evaluation team, and is being considered for upscaling by the provincial authorities. For further details on this mechanism we refer to Part II (on INFRA), section 2.3.

### ***d. Institutional Framework***

The good progress over the years and the positive project final outcomes are testimony of an effective institutional mechanism, with a Technical Assistance (TA) team based within the Department of Planning and Investment (DPI) and working in tandem with the provincial Project Management Board (PMB) set up for that purpose, under the supervision of the Provincial People's Committee. At the district level, which was the implementation level of the project, District Implementation Boards (DIBs) were established under the authority of the District People's Committees. Each DIB was supported by a District Facilitator recruited and contracted by LuxDev. At the local level, Commune People's Committees had the support of one Community Facilitator (CF) each, co-funded by LuxDev and the counterpart. The final evaluation team took note of the fact that all staff on the counterpart side that supported project implementation were existing government staff, and that unlike many ODA projects no consultants were additionally hired. This was seen as positive as it substantially contributed to ownership, while also ensuring greater sustainability of interventions thanks to strengthened local capacities.





## SECTION C

# PROJECT INTERVENTIONS & RESULTS

## (I) SOFTWARE ACTIVITIES



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In Section B above, we looked at three main sources – the M&E Matrix data, the Randomised Control Trial, and some key findings of the Final Evaluation report – which together give a picture of outcomes and results the project achieved over a relatively short four-year period, and some of the key elements and mechanisms that contributed to those results.

**In this current Section C we take a closer look at the wide variety, diversity and types of activities and interventions that were planned and implemented -- and contributed to these results. This concise overview will be done Task by Task. In the blue table on top we present some of the outcomes and results the intervention contributed to, as per M&E indicator data, and following this we cover the various types of interventions, with for each the key elements -- including WHERE the intervention was implemented, WHO the beneficiaries and implementing partners were, WHY the intervention was planned and implemented, and WHAT the immediate output and longer term outcome of the intervention were.**

**Under (I) we cover a selection of software interventions, under (II) the hardware (INFRA) interventions.**



## TASK 1

### STRENGTHEN COMMUNITY MOBILISATION AND OWNERSHIP IN SUPPORT OF ADAPTIVE LOCAL DEVELOPMENT

Outcome Indicator	Baseline	Progress		End of project (Dec'17)	
	Jun'14	Dec'15	Dec'16	Target	Results
4. Number of Fishery Association in target communes that have established full ownership of their operations over project period.	0	05	10	05	13

## A. Mobilise, organise and support local communities, including the most vulnerable, to become active partners in local development

Target areas	29 communes in 3 districts
Beneficiaries	Staff of provincial and district WUs, DARD, DoHA, FU, YU, DOLISA and selected CFs; members of CBOs and their executive and management boards, members of FA and FUs, as well as core farmers
Implementing partners	Independent consultants from Hue University and Hue Industrial College, qualified master trainers in organisation and management from provincial and district authorities, district WUs, TT Hue Provincial FA and Quang Dien DARD

### OBJECTIVES

Build capacity, improve operations and contribute to the generation of jobs and increased income, through:

- Development of knowledge and skills in organisation, leadership and management, and on how to organise and facilitate group discussion sessions
- Support in establishment of Cooperative groups, following Decree 151 of the Prime Minister, and 13 FAs, with legal status and operational plan;
- Improvement of skills in Bonsai shaping and caretaking.

### OUTPUTS

- 01 nine-day TOT training course on organisation and management of CBOs for 21 provincial and district level staff, as well as community facilitators
- 29 two-day roll-out training courses on leadership and group management skills for 829 members of executive and management boards of 351 CBOs;
- Technical assistance and capacity building on national and local government regulations and stipulations on management and exploitation of fisheries to members of 13 FAs
- 09 two-day training classes on procedures to establish Cooperative Groups for 360 FU members
- 01 seven-day training on Bonsai shaping and caretaking for 30 members of 03 Bonsai Associations in Quang An, Quang Tho communes and Sia town

### OUTCOMES

- Trainees were able to effectively apply trained knowledge and skills into managing and coordinating operations of their organisations and clubs to become active partners in local development;
- 13 newly established and strengthened existing FAs, including 679 members, have been able to effectively operate on their own, having executive boards, groups and specific work plans, and adequately participate in the co-management and exploitation of fisheries;
- Members of Bonsai Associations have had their skills on bonsai shaping and caretaking improved which help to establish a local bonsai business and planting activities at a new level

## B. Prepare Communal Vulnerability and Capacity Assessment (CVCA) reports for 29 target communes

Target areas	29 communes in 3 districts
Beneficiaries	CFs, village leaders, CPC staff and officers of district partner agencies, mass organisations, local communities
Implementing partners	Centre for Social Research and Development (CSRD)

### OBJECTIVES

Contribute to the development and application of participatory methods for climate-adapted local planning to respond to natural disasters, through:

- a. Capacity building for 77 local project staff and officers with methods and tools for CVCA;
- b. Development and application of participatory methods for implementation of CVCA.



### OUTPUTS

- a. 03 four-day planning sessions on CVCA with communities in 03 target districts;
- b. 29 CVCA reports carried out in 29 communes in 3 districts, summarised in 01 report per commune.

### OUTCOMES

- a. CVCA for all 29 project target communes with the active participation of communities, mass organisations and local government staff was developed, in line with the national and provincial policies and plans on CC, DRR and Inter-Coastal Zone Management;
- b. CVCA reports were subsequently used as important building blocks during four-day planning sessions with communities in all target villages as part of the Local Participatory Planning Process (LPPP).



## C. Improve the Local Participatory Planning Process (LPPP) and ensure its effective use in target areas

Target areas	3 target districts and Hue City
Beneficiaries	Provincial DPI staff, VIE/033 project staff (PPMB, DIBs, TAO), CFs, commune and village staff from P.C.s and agencies
Implementing partners	CORENARM, Hue University of Agriculture and Forestry, TAO MEDC Specialist, TT Hue DPI and 03 district Divisions of Planning and Finance



### OBJECTIVES

Ensure an effective adaptive and integrated Local Participatory Planning Process in target commune development planning, through:

- Capacity building on PRA/VDP/CDP toolkit and integrating LPPP outcomes into adaptive local development plans (district and commune SEDPs and VDPs) and ensuring effective use of LPPP tool kits;
- Improving district and commune officers' planning knowledge and skills on formulating SEDPs;
- Strengthening of project management (Logical Framework, Results-based reporting, etc) and M&E (SMART indicators, M&E matrix, project risk assessment and management matrix RAMM, etc) for project stakeholders.

### OUTPUTS

- 01 five-day TOT training for 32 provincial DPI officers on training methodology, use of PRA/VDP/SEDP toolkit and methods of integration of LPPP outcomes, by CORENARM;
- 29 roll-out training on adaptive and integrated LPPP, use of PRA/VDP/SEDP toolkit and methods of LPPP result integration for 703 commune and village staff, by master trainers;
- 02 training courses for 60 DPI, PPMB, DIB, TAO staff (31) and CFs (29) on development project management facilitated by MDF Indochina Training and Consultancy;
- 02 two-day training courses in Phu Vang and Phu Loc districts for 80 government officials on methods of calculating socio-economic indicators used in existing SEDPs; hence to improve their daily assigned work, facilitated by TT Hue DPI;
- 02 training courses on project monitoring and evaluation for 29 CFs and 26 DPI and project staff (PPMB, TAO, DIBs) facilitated by TAO MEDC Specialist.

## OUTCOMES

- a. Improved capacity in formulating local SEDPs in daily work of government officials;
- b. 224 Village Development Plans were prepared for each target village by 8,355 household representatives, inserted into the CDPs and further integrated into the government's Five-Year SEDPs 2016-2020;
- c. LPPP manual developed under previous LuxDev project VIE/023 amended with updated tools and important contents and was used as local master plan for development of CALDIP annual work plans in 2014-2017;
- d. LPPP used as requisite input for the development of national target programmes, such as a Poverty Reduction Programme for 257 Coastal Communes and the NRDP master plans;
- e. Improved knowledge and skills to effectively manage project, develop project M&E system documents and manage its operation as well as produce regular data for project indicator monitoring performance (key inputs for project annual reports);
- f. CALDIP Project Result-based framework and RAMM were updated with defined indicators as a result of the M&E training.



## D. Identify and duplicate Good Practices in community-based climate-adapted local development

Target areas	04 communes in Phu Loc
Beneficiaries	54 vulnerable women (including poor, near poor, single mothers, household members with disabilities, etc) in Phu Loc
Implementing partners	Phu Loc WU and SAFFE



### OBJECTIVES

Livelihood development and support vulnerable women's groups to have better access to productive resources, through:

- Improved knowledge and piloting of white pearl onion model, and motivating women to replicate.

### OUTPUTS

- 02 multiple-batch trainings on techniques of white pearl onion growing organised for 54 vulnerable women in Phu Loc;
- 9 kg of white pearl onion seedlings provided for each participating vulnerable woman from Phu Loc to be planted in a total area of 9,000m<sup>2</sup> (120m<sup>2</sup>/HH).

### OUTCOMES

- Trained vulnerable women know how to grow white pearl onion properly;
- 95% of total planted white pearl onion reported alive, have grown well and could be harvested after 90 days, thus proving to be an efficient model with short-term positive effects on women's livelihoods;
- White onion model replicated in an area of 2.35 Ha in Sia town, Quang Dien, with the participation of 29 women.





## TASK 2

### DEVELOP AND/OR IMPROVE TARGETED TRAINING PROGRAMMES (gender issues, environmental education, DRR, risk management, etc)

Outcome Indicator	Baseline	Progress		End of project (Dec'17)	
	Jun'14	Dec'15	Dec'16	Target	Results
6. By end of project, at least 25 % of women in target areas report to have improved access to economic opportunities and/or have strengthened their livelihoods	N/A	N/A	N/A	25%	76.1%
7. By end of the project, the number of documented incidents of gender-based violence in target communes is reduced by 30%	86 incidents	35	33	60	7
8. By end of project, at least 70% of gender equality trainees have participated in at least one post-training gender equality-related activity.	N/A	92.9	98.2	70	97.6

9. Percentage of primary & secondary pupils in target communes with improved KAP with regard to climate change and DRR is at least 70% by end of the project	N/A	62.7	87.1	70	92.5
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## A. Improve and implement an action plan on gender equality in target areas

### 1. Capacity and awareness raising on gender equality and gender-based/domestic violence preparedness

Target areas	Hue City and 29 target communes
Beneficiaries	1,851 members of local clubs, commune CAWs and commune/village FU and WU staff; 199 (vice) leaders and regular staff of district divisions, CPC legal division, communal police, 'Reliable Shelter' staff; 528 members of existing and new Gender Clubs; 478 gender equality competition participants including commune staff and communities; Hue inhabitants participated in the city-wide campaign
Implementing partners	TT Hue and 3 district WUs, Phu Vang and Phu Loc DOLISA



### OBJECTIVES

Increase awareness and capacity on gender issues, gender equality and skills/approaches on how to cope with and control situations of domestic violence, through:

- Improved knowledge and understanding through, among others, the application of the SASA methodology;
- Strengthened operational regulations of gender equality clubs and improved counselling service skills on issues of gender equality and gender-based violence;
- Support to enhance education and communication and facilitate exchanges/discussions at community level for active involvement in preventing violence against women and girls.

### OUTPUTS

- 50 training courses on gender issues, gender equality and skills/approaches on how to cope with/control domestic violence for 2,097 participants, including 03 three-day training courses on "Skills to mobilise the participation of the community in gender equality and the prevention of domestic violence through SASA method" to 123 district/commune leaders and vice-leaders;
- 13 strengthening meetings for 13 existing gender equality clubs in Phu Vang and Phu Loc, endorsement of clubs' operational regulations and election of the clubs' executive boards to facilitate clubs' meetings;

- c. 05 Gender Clubs have been established in 5 communes in Phu Vang district and 04 regular meetings per club have been organised;
- d. 01 campaign on the prevention and elimination of violence against women and girls, including 1 613 orange ribbons, flags, banners, distribution of booklets and leaflets entitled “16 Things You Can Do to End VAWG”, 01 report on domestic violence broadcasted on provincial TV, 02 articles published in TT Hue newspaper and 01 demonstration event “16 Orange Days of Activism against Gender-Based Violence” with participation of 506 people, including provincial leaders, UN Women Country Representative, etc;
- e. 12 one-day competitions on legal knowledge on gender and gender equality for 29 target communes, including 01 district-level competition in Phu Loc, for 478 participants and 2,650 audiences.

## OUTCOMES

- a. 100% SASA trainees were able to develop and perform their SASA action plan, and apply the approach and methodology in their daily work;
- b. Improved legal counselling services on issues of gender and gender equality and trainees have become active members in acting as reliable shelters for domestic violence victims;
- c. Trainings, competitions and the city-wide campaign have raised the general awareness and knowledge on gender equality and gender-based/domestic violence among communities and staff at different levels, thus contributing to increased gender equality and the reduction of incidents of documented gender-based and domestic violence, which has seen a reduction of 91.86% in target districts between 2014 and the end of 2017.

## 2. Women’s work and economic empowerment

Target areas	Hue City and 29 target communes
Beneficiaries	116 female owners of local SMEs; 88 leadership representatives from provincial and district WUs, DOLISA, Provincial Social Insurance, Provincial Labour Confederation, Management Board of the Provincial Industrial Zones, Female Entrepreneurs Club, as well as 42 women working in enterprises and representatives of Hue enterprises with a large number of female employees
Implementing partners	3 district WUs



## OBJECTIVES

Increase local SME female owners' awareness of gender issues in doing business and financial management, as well as increase protection of rights and benefits of female workers, through:

- a. Provision of training on gender and business (GET Ahead) to female owners of local SMEs;
- b. Facilitating discussions, exchanges and dialogues on enforcement of relevant laws and policies for female workers, as well as challenges and difficulties during the legal performance, with the aim of developing a proposal and recommendations for the revision of policies.

## OUTPUTS

- a. 06 training courses on gender and business issues organised for 116 female local SME owners;
- b. 01 roundtable/dialogue attended by 88 participants who are leaders of relevant departments, mass organisations, provincial industrial zones, enterprises, and female workers

## OUTCOMES

- a. An average of 94% of total trained female local SME owners found to have correct and improved understanding of gender issues, gender equality, and fixed gender prejudice, business environment and opportunities, on how to select and manage a business, sale skills, 4P marketing, and skills to learn about customers and competitive opponents;
- b. Discussion allowed for exchanges and a dialogue on the implementation of laws and policies on women's labour in order to protect the legitimate rights and interests of female workers, harmonizing the benefits between enterprises and workers and thus contributing to the sustainable development of enterprises and local socio-economic development and reducing the gender gap in the field of labour and employment.

## B. Capacity building in M&E, data collection and entry at different levels

Target areas	29 communes in 3 districts
Beneficiaries	29 CFs, 3 DIB staff, 3 DFs, 444 village staff from 224 villages in 29 target communes
Implementing partners	3 DIBs

## OBJECTIVES

Ensure effective participation of district/commune/village staff in collecting data to monitor project results, through:

- a. Introduction of project M&E system and provision of necessary knowledge and skills on project monitoring data collection for DFs, CFs and commune statistic officers and village staff;

- b. Understanding and know how to use tools to collect M&E data for project;
- c. Grasping necessary principles and skills in order to conduct effective interviews.

## OUTPUTS

- a. 03 two-day training courses on project M&E data collection for 32 district and commune staff, including: how to conduct a good interview, how to use data collection tools (3 questionnaires, 9 checklists and 7 templates for collecting secondary data) and field practice of data collection and expertise sharing;
- b. 18 one-day training courses for 444 volunteer village staff in 29 communes, including on how to conduct a good interview, how to use data collection tools (questionnaires, checklists, templates for collecting secondary data) and field practice of data collection and expertise sharing;
- c. 03 two-day training courses on data entry and analysis in SPSS for CFs and DIB staff in 3 districts.

## OUTCOMES

- a. Trained staff were able to collect monitoring and evaluation data for project indicators from 4,833 samples for the first annual data collection batch in 2015, 4,705 in 2016 and 6,489 in 2017, in 29 target communes, as scheduled;
- b. These collected monitoring data have provided key inputs for results-based management project Annual Reports 2015, 2016 and 2017.

## C. Increase the awareness and skills of people in CBOs in protecting and managing local natural resources

Target areas	29 communes in 3 target districts
Beneficiaries	2,292 beneficiaries including CFs, CPC staff in charge of legal issues and agriculture, environmental communal police, FA Executive Board and other key members of FAs (including FAs who don't manage FCZ), members of lagoon patrol teams, commune and village WU leaders, village Communist Party secretary and relevant village leaders
Implementing partners	TT Hue Provincial FU, Quang Dien and Phu Vang FUs, 3 district DARD

## OBJECTIVES

Increase local awareness and skills in environmental protection and natural resource management, through:

- a. Capacity building of FA members on obligations, rights and activities, as well as law enforcement regulations for aquatic exploitation of water surface and Fishery Conservation Zones, and methods of patrolling to monitor and control fishery and aquatic resources;



- b. Capacity building of FA Executive Boards in organisation and management of FA operations, monitoring performance, fishing net and fishing field control, developing operational plans, and skills related to law enforcement.

## OUTPUTS

- a. 57 trainings on aquatic resource protection in and outside of FCZs to 1,739 commune and village staff and members of organisations in 7 communes in Phu Loc and 11 communes in Quang Dien;
- b. 21 three-day training on executive and management skills (planning, management, protection and development of aquatic resources) for 553 members of FA Executive Boards.

## OUTCOMES

- a. 100% trainees have understood the organisation, operations and management of a FA, are aware of the significance, roles and purpose of a lagoon conservation zone in aquatic resources protection and conservation. They have been equipped with knowledge on i) legal enforcement, and relevant regulation on management of water bodies, ii) permitting fishing rights, patrol operations and on how to handle violations in fishing and other activities in the lagoon.

## D. Increase the awareness and understanding of communities and local authorities on climate-related DRR and Risk Mitigation

Target areas	29 communes in three target districts
Beneficiaries	1,893 total beneficiaries, including members of village mass organisations and CBOs, commune and village Task Forces and Steering Committees for DRR, Search and Rescue (S&R), Flood and Storm Prevention & Control, Emergency Responses, as well as district, commune and village concerned staff working on DRR and S&R
Implementing partners	3 district DARD, Phu Loc Division of Health



## OBJECTIVES

Support local communities and authorities to effectively prepare for and respond to natural disasters, through:

- a. Provision of basic knowledge and skills on 1st aid and emergency responses and rescue of victims of natural disasters, laws and regulations on natural disaster prevention and control, climate change impacts, and the community-based disaster risk management approach;

- b. Enabling trainees to respond effectively in emergency and rescue during natural disasters;
- c. Support in implementation of community-based disaster risk assessments and development of plans for disaster preparedness and emergency response
- d. Capacity building in damage/loss assessments for effective measures and preparation of plans for reconstruction and recovery;
- e. Provision of necessary equipment/facilities for implementation of natural disaster prevention and control plans

## **OUTPUTS**

- a. 09 training courses on 1st aid and skills of emergency responses and rescue for 116 members of village mass organisations and CBOs, as well as 175 commune and village task forces for DRR, S&R in Phu Loc district;
- b. 06 two-day training courses on skills and responses to different natural disasters types, preparedness and response for 239 members of commune and village steering committees for flood and storm prevention & control, emergency responses, S&R, as well as district and commune concerned staff in Phu Vang and Quang Dien;
- c. 01 two-day course on laws and decrees of natural disaster prevention and control and planning responses for 28 staff of district agencies and organisations in Phu Loc district;
- d. 24 three-day courses on methods of developing commune plans and on how to make risk assessments for 699 district, commune and village staff and leaders in 3 target districts;
- e. 09 workshops to present commune plans for natural disaster prevention and control with attendance of 178 district, CPC and village leaders and staff, and local people;
- f. 14 communal plans for DRR, S&R developed by 458 key commune/village staff working on DRR and S&R in 14 communes in Quang Dien and Phu Vang districts;
- g. 144 torches, 48 loudspeakers and 168 life-jackets provided for 48 villages in 14 target communes in Quang Dien and Phu Vang districts

## **OUTCOMES**

- a. Capacity to respond to natural disasters has seen a considerable increase. 90% trainees are now able to apply the acquired basic knowledge and skills of first aid, emergency rescue and responses, and 100% trainees are familiar with how to assess the damage-losses caused by disasters.
- b. 80% trainees assessed to have understood and applied regulations on natural disaster prevention and control, methods and skills to develop plans for emergency response and preparedness before, during and after disasters;
- c. 32 maps of village hazards have been drawn in compliance with regulations of Article 5, Law on natural disaster prevention and control, developed with the project support of necessary equipment/facilities



## E. Pilot environmental education and practices in vulnerable primary and secondary schools, including on DRR/RM planning and activities

Target areas	64 primary (35) and secondary (29) schools in 3 districts
Beneficiaries	More than 1 500 teachers, 20 000 pupils and their parents
Implementing partners	3 Centre for Development of Community Initiative and Environment (Hanoi), Centre for Live & Learn for Environment and Community (Hanoi), 3 district DoET



### OBJECTIVES

Provide knowledge and skills of environmental protection, climate change and DRR for teachers and pupils in target areas. through:

- "I learn Green Living" training facilitated through various games;
- Enabling teachers to apply a child-centred in the organisation of extra-curricular activities to increase the pupils' knowledge on environmental protection and DRR;
- Presentation by trainees (teachers) of approaches to cope with disasters and climate change, and share experiences of learning and teaching these kinds of topics

### OUTPUTS

- 07 three-day TOT training courses on environmental protection, climate change response, DRR and sustainable development education following the "I learn Green Living" methodology for core teachers of 52 primary and secondary schools in target districts;
- 140 extra-school activities in 64 primary and secondary schools in target 3 districts, including: 64 golden bell ringing contests with attendance of 5,773 selected students, 20,591 audience, 5,009 teachers and 2,096 parents; 59 drawing contests with attendance of 6,647 selected pupils, 1,677 teachers and 1,319 paintings drawn; 16 variety and fashion shows on environmental protection topics in 16 schools with the participation of 1163 pupils, 494 teachers, 765 parents; 116 singing items and 32 dramas performed and 295 fashionable suits.
- 16 awareness raising communication activities in secondary schools in three target districts;
- 38 "I Learn Green Living" training courses facilitated by teachers of pupils in 28 secondary schools in three target districts

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## OUTCOMES

- a. 100% of trainees received certificates as master trainer for “I learn Green Living” methodology and were assessed to have improved knowledge and skills, were able to organise extra-school activities to raise pupils’ awareness as well as developed a plan for teaching climate change response and DRR or a plan for natural disaster prevention and control for their schools;
- b. 92.5% of primary and secondary pupils from 64 schools have had their knowledge, positive attitudes and practices (KAP), with regard to climate change and DRR, raised
- c. Through these communication activities, DoET, schools and local authorities have mobilised local pupils and their parents, teachers and local people, in general, to practice the waste management following the 3R and environmental protection.



### TASK 3

## IMPROVE THE QUALITY AND DELIVERY OF PUBLIC SERVICES AND ENSURE THEY EFFECTIVELY REACH AND SUPPORT ORGANISED COMMUNITIES

Outcome Indicator	Baseline	Progress		End of project (Dec'17)	
	Jun'14	Dec'15	Dec'16	Target	Results
10. Percentage of farmers in target communes who report to be satisfied with agricultural extension services is at least 80% by end of the project	N/A	63.1%	82.4%	80%	82.9%
11. Percentage of people in target communes who report to be satisfied with administrative services at one-stop shops supported by the project is at least 80% of people	N/A	76.9%	95.5%	80%	88.1%

## A. Develop or improve the capacity for maintaining and monitoring public services by Government staff & communities

Target areas	Phu Loc: Vinh Hung, Loc Binh, Loc Tri communes Phu Vang: Vinh Thai commune Quang Dien: Quang Phu, Quang Ngan, Quang Thai and Quang Cong communes
Beneficiaries	Local people, commune OSS staff in 8 target communes and staff of 3 district DoHA
Implementing partners	TT Hue Department of Technology and Sciences, Danang Centre for Quality Assurance and Testing; 3 district DoHA, CPCs



### OBJECTIVES

Strengthening performance and professionalism of communal and district-level civil servants for improved local public services, through:

- Support for the establishment and application of VN Standard ISO 9001:2008 into the quality management system of one-stop shops (OSS) in selected communes;
- Raising awareness and knowledge of CPCs and OSS staff/officers on Quality Management Systems in compliance with VN Standard ISO 9001:2008 and methods to prepare and develop documents/materials/forms for Quality Management Systems.

### OUTPUTS

- Technical instruction and advice to target CPCs to establish steering committees, quality management representatives (QMR) and ISO taskforces; and assessment of existing quality management systems;
- 08 three-day training courses on Quality Management System in compliance with VN Standard ISO 9001:2008, OSS organisation and operations and procedures to resolve OSS administrative formalities, as well as on skills of communication, presentation, serving and managing docs, monitoring and evaluation of OSS operations, for 163 district and commune officers/staff;
- Technical support to OSS in developing system procedures and procedures of resolving administrative formalities at commune level as well as instructions on how to apply improved quality management system in 8 target communes;
- Trainings for internal evaluators of quality management system in 8 target communes and supported commune P.C.s to organise, twice, internal assessment of the application of the quality management system in compliance with VN Standard ISO 9001:2008;

- e. Hired Danang Centre for Quality Assurance and Testing as independent evaluation consultant to make external assessment of quality management system of OSS in target communes;
- f. Provision of necessary equipment/facilities, including computers, printers, scanner, fan, etc;
- g. Support target CPCs to organise ceremonial events to proclaim the application of VN Standard ISO 9001:2008 quality management systems at local OSS.

## OUTCOMES

- a. Trained district and commune officers/staff working at OSS in target communes had improved knowledge and skills which enabled them to provide better public admin services for local people in target communes;
- b. 8 OSS in Quang Phu, Vinh Thai, Vinh Hung, Loc Binh, Loc Tri, Quang Ngan, Quang Thai and Quang Cong communes have developed and effectively applied the quality management system in compliance with VN Standard ISO 9001:2008 into commune administrative service.

## **B. Establish an effective partnership at the local level between local Government and extension services, communities and cooperative/ the private sector**

Target areas	3 target districts
Beneficiaries	Local farmers, enterprises, agricultural cooperatives, district and commune P.C.s, 3 district Stations of Plant Protection, Agriculture Extension and Veterinary Services, Phu Loc VDBs, 5,028 farmers in three target districts attended technical trainings and received project support to implement models
Implementing partners	3 district DARD and SAFFE, TT Hue CAE and 3 district SAFFE

## OBJECTIVES

Support to improve the quality and effectiveness of local market-oriented agriculture extension performance, as well as economic efficiency and income of local farmers, through:

- a. Assessment of existing community-based extension services in target districts;
- b. Facilitating dialogue on improvement of agriculture extension services between local farmers, agricultural cooperatives, enterprises and local authorities;
- c. Capacity building in village development issues in new rural development and organisation of agriculture and fishery extension services;
- d. TOT training to communities in agriculture and aquaculture farming techniques and support various models, including Giang Dong flowers and orange-spotted rabbit fish.

## OUTPUTS

- a. 01 half-day dialogue with attendance of 73 representatives from district and commune P.Cs, district line agencies, enterprises, agricultural cooperatives and local farmers;
- b. 04 two-day training on knowledge & skills of village development in new rural development and organisation of agriculture and fishery extension service clubs for 130 VDB members in 09 target communes in Phu Loc;
- c. 02 training classes on poly-culture and aquaculture disease preparedness to 48 core farmers and establishment of 02 aquaculture technician groups, including development and enactment of 02 operational regulations;
- d. 5,028 farmers received project support in implementing models of agricultural and aquaculture extension services, as well as training classes on TOT methodology, group management, and various technical trainings of eel hatching and farming, nursing and farming orange-spotted rabbit fish, nursing and cultivating Giang Dong flower, group management, etc.

## OUTCOMES

- a. Local farmers had improved knowledge of policies that support development of national, provincial and district agriculture extension services, and, together with concerned partners, discussed effective and feasible measures to improve them, and agreed on how to implement and replicate models of agriculture extension of better quality;
- b. Farmers have improved their production planning, group management and TOT skills in implementing various models, including cultivating Giang Dong flower, nursing and farming giant tiger prawn, orange-spotted rabbit fish as well as hatching rice field eel;
- c. Trained VDB members had improved knowledge and skills on village development in new rural development and know how to organise/establish agriculture and fishery extension service clubs;
- d. Models such as the orange-spotted rabbit fish led to the establishment of linkages among fish nursing and farming farmers, and are feasible for replication in other localities in the province, having reached a survival rate of over 68% and high profitability (average of 57 million VND/HH for eel farming and over 80 million for orange-spotted rabbit fish);
- e. The introduction of models had contributed to the diversification in agriculture and aquaculture in the three districts, better exploitation of local soil potentials, thus increasing the value of different cultivation areas, and thus improving local farmers' lives.





## TASK 4

### PLAN AND IMPLEMENT CLIMATE ADAPTIVE AND RESILIENT INFRASTRUCTURE AND ENSURE EFFECTIVE O&M SYSTEMS ARE IN PLACE

Outcome Indicator	Baseline	Progress		End of project (Dec'17)	
	Jun'14	Dec'15	Dec'16	Target	Results
12. Throughout the project, 90% of planned, delegated IN-FRA sub-projects are completed on time as per the schedule in the Financing Agreements (FAs).	N/A	89	87	90	83.8
13. Throughout the project, the percentage of actual cash payments by communities as local contribution to project-supported INFRA sub-projects is at least 90% of committed payments.	N/A	98	100	90	97.1
14. Throughout the project, the percentage of INFRA	N/A	91.9	96.7	90	98.6



sub-projects in target communes that have sufficient OM&M measures in place is assessed to be at least 90%.					
15. Area of productive land in target communes better protected against the impacts of climate change by project-supported INFRA sub-projects.	0	3,036.6	4,449.9	N/A	5,653
16. Number of HHs in target communes directly benefiting, in one way or another, from project-supported INFRA sub-projects.	0	16,466	25,192	N/A	30,684

## A. Increase capacity and skills in planning management, maintenance and rehabilitation

Target areas	29 communes in 3 target districts
Beneficiaries	616 commune and village authorities and mass organisation members in 29 target communes; 40 managers and staff of Project VIE/033 TAO, PPMB and DIBs of 3 target districts; 67 concerned CPC staff and CFs in 9 target communes in Phu Loc (36) and Quang Dien (31) districts
Implementing partners	Phu Loc Fatherland Front, 03 district Divisions of Commerce, Infrastructure & Economics, Finance and Planning; TT Hue DPI and Department of Mechanics and Technology of Hue University of Agriculture and Forestry, National Department of Tendering and Management at MPI

### OBJECTIVES

Develop capacity and skills in planning management, supervision, maintenance and rehabilitation, through:

- Policies/regulations, relevant functions, tasks, rights and obligations provided by laws, forms and activities of community supervision of public investment on infrastructure works;
- How to plan and implement community supervising processes of planning, constructing and hand-over of rural infrastructure works;
- Law on Tendering No 43/2014.QH13 and Decree No 63/2014/ND-CP;
- New Construction laws, related Decrees and Public Investment Law;
- Investment procedures in capital construction, management of quality, progress costs and liquidation of infrastructure works;
- Legal documents related to infrastructure construction and practical situation in the construction organisation and management.

## OUTPUTS

- a. 25 two-day training courses on community supervision of public investment on infrastructure works with regards to policies/regulations, relevant functions, tasks, rights and obligations provided by laws forms & activities, related supervising skills and O&M for 616 commune and village staff/officers;
- b. 01 three-day training course on Law on Tendering No 43/2014/QH13 and Decree No 63/2014/ND-CP for 17 members of project stakeholders, including TAO, PPMB and DIBs;
- c. 01 two-day training course on new Construction laws, related Decrees and Public Investment Law was organised for 40 concerned managers and staff of TAO, PPMB and DIBs;
- d. 02 two-day training course on investment procedures in capital construction and liquidation of infrastructure works attended by 67 concerned CPC staff and CFs in 18 target communes.

## OUTCOMES

- a. 96.4% trainees had improved knowledge of policies/regulations, relevant functions, tasks, rights and obligations provided by laws, forms & activities of community supervision of public investment on infrastructure works, and INFRA works OM&M;
- b. All trainees have well understood the Law on Tendering No 43/2014/QH13 and Decree No 63/2014/ND-CP and were issued a certificate of tendering performance training by Department of Tendering Management, MPI;
- c. Managers and staff of TAO, PPMB and DIBs had updated and improved knowledge of new Construction Law & related Decrees and Public Investment Law; hence contributing to improvements in the quality and effectiveness of appraising and managing performance for INFRA works, funded by Project VIE/033 and other funding sources;
- d. Over 67% of trainees assessed to have acquired solid knowledge of investment procedures in capital construction and liquidation of infrastructure works, 89% increase after TOT assessed to have well understood legal bases and contents of extant construction laws, and 0 to 44% increase after the training of trainees assessed to have solid knowledge of investment fund liquidation.

## B. Local ownership and responsibility for infrastructure assets

Target areas	Vinh Giang and Vinh My communes in Phu Loc district
Beneficiaries	338 households residing along 7 roads as direct beneficiaries and entire local people in Vinh Giang and Vinh My communes as indirect beneficiaries
Implementing partners	Phu Loc DIB

## OBJECTIVES

Enhance sustainability and effectiveness of operating rural transport works, through:

- a. Raising responsibility for maintenance of rural roads of local people through mass organisations;

- b. Facilitating dialogue on improvement of agriculture extension services between local farmers, agricultural cooperatives, enterprises and local authorities.

## **OUTPUTS**

- a. Relevant equipment has been provided and put into operation in two communes, including 07 grass cutting machines and 02 sawing machines;
- b. 02 campaign launching events have been organised in two communes, attended by 180 people;
- c. 07 rural roads in two communes have been regularly maintained, ensuring favourable transport and traveling of local people;
- d. Regulations on rural road maintenance and greening in Vinh Giang and Vinh My have been enacted for implementation.

## **OUTCOMES**

- a. 338 households residing along 07 roads and entire local people in 02 communes have had their awareness raised on the importance of maintenance and greening of rural roads as well as on environmental protection of public works;
- b. The activity has been successfully performed and was used as a pilot for scaling up to other roads in the communes, and regulations on rural road maintenance and greening have been enacted for implementation in the entire communes.



## TASK 5

### IMPROVE THE LIVING CONDITIONS OF POOR AND VULNERABLE PEOPLE IN RESETTLED AREAS

Outcome Indicator	Baseline	Progress		End of project (Dec'17)	
	Jun'14	Dec'15	Dec'16	Target	Results
17. Percentage of HHs in resettlement areas that, overall, have substantially improved their living conditions, as per a composite indicator	N/A	20.8%	40%	60%	64.7%
18. By end of the project, children under 6 years old in resettlement areas have equal learning opportunities and conditions to children in other areas in target districts	n/a qualitative				Done by final evaluation team

## A. Support to resettled, vulnerable areas and communities to become “greener”, with active involvement of farmers and non-farmers

Target areas	26 resettlement areas in 11 communes in Phu Loc (3 communes), Phu Vang (5) and Quang Dien (3)
Beneficiaries	1,457 resettled households living in Phu Loc (484), Phu Vang (706) and Quang Dien (267)
Implementing partners	3 district DARD

### OBJECTIVES

Generate natural landscape, green the environment and protective windbreaks in resettlement areas of target communes, through:

- Scattered tree planting in 26 selected resettlement areas in 11 target communes of 3 districts to protect from strong winds and soil erosion, as well as generate shadow and green belts.

### OUTPUTS

- A total of 38,485 scattered trees (31.73 ha) were planted in resettlement areas in 3 target districts, as follows:

Total	Number of scattered trees planted by tree species					
	Coconut	Hopea odorata	Casuarina equisetifolia	Coccoloba uvifera (Hibiscus)	Dipterocarpus alatus	Acacia crassicaarpa
Number of trees (3 districts)	2,240	12,600	18,770	4,000	250	625
<b>Total area (3 districts, in Ha)</b>	<b>4.48</b>	<b>20.16</b>	<b>5.69</b>	<b>0.4</b>	<b>0.63</b>	<b>0.37</b>

- Project support also included Bong Lua NPK fertiliser, Long Thanh phosphate fertiliser, bamboo stakes of 1.5m height and nylon binding string.

### OUTCOMES

- 26 resettlement areas in 3 districts were planted with scattered trees of Casuariana Equisetifolia and Hopea Odorata, Coconut, Coccoloba uvifera, Dipterocarpus alatus and Acacia crassicaarpa;
- 52.75% trees survived following inspection in three target districts;
- Nevertheless, target resettlement areas have an improved living environment & landscape, and are now better protected from strong winds by tree windbreaks.

## B. Support and ensure that children from resettled, poor and vulnerable households have equal opportunities in education and learning

Target areas	23 kindergartens in 3 target districts
Beneficiaries	5,928 kindergarten children, including 1,266 living in resettlement areas, of 47 teaching facilities in 23 kindergartens in target communes 45 pupils of 14 primary and secondary schools in Quang Dien and living in resettlement areas
Implementing partners	3 district DoET



### OBJECTIVES

Encourage children to go to school and contribute to create equal learning opportunities and conditions for children in resettlement areas as compared to children in other areas of target districts, through:

- Access to new toys, tools, facilities & equipment by kindergarten children and teachers, provided to help meet the national standards required under the Circular 02/2010/TT-BGD & DT dated 11/2/2010 of the Ministry of Education and Training;
- Establishment of a scholarship fund for children in resettlement areas in Quang Dien district to allow the pupils' families to buy learning tools and facilities in support of their learning.

### OUTPUTS

- 3,527 units and sets of toys/tolls, learning and teaching facilities and equipment purchased and provided for 23 kindergartens in three target districts;
- 89,750,000vnd-valued scholarship packages provided in two batches to 45 pupils in Quang Dien district.

### OUTCOMES

- Kindergarten children, particularly children aged 3-5 years and children in resettled areas in target communes had better access to improved learning conditions at local kindergartens, thus helping them to have balanced and harmonious growth in all aspects through learning with playing;
- The beneficiary pupils have received and used the scholarships to buy learning tools and, as a result, learning opportunities of vulnerable pupils in Quang Dien resettlement areas have been improved and drop-outs due to economic challenges have been reduced.

## C. Support resettled families who have most difficulties in adapting to their new locations and environment through improved health care

### 1.Reproductive health care

Target areas	Resettlement areas in 19 target communes in in 3 target districts
Beneficiaries	2,284 beneficiaries, including pregnant women, mothers having children under 6 years old and women of reproductive age, and adolescents and youths aged 10-24 years in resettlement areas
Implementing partners	Phu Loc and Quang Dien District Divisions of Health, Phu Vang District Health Centres, Phu Loc and Quang Dien District Centre for Family Planning & Population, Provincial Association for Family Planning



### OBJECTIVES

Contribute to improve health of young people and women of reproductive age in resettlement areas, through:

- Increased knowledge and understanding of reproductive health care, family planning, sexually transmitted diseases and HIV prevention, as well as maternal health care;
- Counselling and medical check-ups given to target adolescents and youth in resettlement areas to assess their current health status.

### OUTPUTS

- 15 training courses on reproductive health care, primary health care, nutrition, family planning, sexually transmitted diseases and HIV prevention for 494 pregnant women and young mothers having children under 6 years;
- 07 one-day training courses on maternal health care and parenting skills for 247 women of reproductive age in target resettlement areas in 7 communes of Quang Dien district;
- 20 days of professional health counselling for 1,543 (771 female) and medical check-ups (637 female) to 1,246 adolescents and youths.



## OUTCOMES

- a. Over 90% of trained pregnant women and young mothers have improved knowledge and understanding of reproductive health care, family planning, primary health care, HIV prevention, as well as child nutrition, breast feeding and parenting skills;
- b. Adolescents and youths in resettlement areas had better knowledge and understanding of their health status and problems identified via medical check-ups: 1,252 adolescents and youths in resettlement areas in Phu Loc (22) and Phu Vang (1,230) districts had suffered from at least one of the following health problems: hepatitis B, kidney stones, fatty liver, ovarian cysts, male genital diseases, malnutrition, skin diseases, eye diseases, ears-nose-throat diseases, and tooth-mouth diseases.

## 2. Personal hygiene and sanitation

Target areas	13 resettlement areas IN Phu Loc and Quang Dien districts
Beneficiaries	6,259 direct beneficiaries, including district, commune and village staff, subject teachers, school children (872/4,005 from resettlement areas), local people and women in resettlement areas; Indirect beneficiaries are all local households in target communes
Implementing partners	TT Hue CPM, Quang Dien District Health Centre, Phu Loc District Division of Health, Quang Dien and Phu Loc target communes' CPCs, and commune health centres

## OBJECTIVES

Contribute to reducing the prevalence of diarrhea and digestive diseases and protect local people's health in target communes, through:

- a. Improved behaviour of local people related to personal hygiene and sanitation
- b. Increased awareness, knowledge and understanding of the importance of hand washing with soap.

## OUTPUTS

- a. 07 two-day TOT training courses on personal hygiene and sanitation, related diseases and communication skills for 63 staff of District Health Centres, District Division of Health, WUs, YUs, commune culture and information officers, commune health officers, and village core communicators (02 training courses), as well as 160 teachers and principals from 13 target schools (05 training courses)
- b. 110 communication sessions for 4,005 school children in 110 classes of 13 target schools;
- c. Distribution of various communication material including posters, leaflets/fliers, flipbooks, plastic duplicates of flip-book pictures, teaching manuals, CDs recording communication messages, 02 TV clips on project activities at provincial Television Station, 96 broadcasting communication messages on 5 harms of digestive problems and preventive measures, benefits of hand washing with soap, and influences of personal hygiene and sanitation on epidemic diseases were made via commune PA systems;
- d. 1,600 soaps distributed at training courses, village meetings, and commune health centre and schools;

- e. 39 village meetings to communicate messages on personal hygiene & sanitation hand washing with soap were organised in 13 resettlement villages;
- f. 12 batches of personal communication organised in the periodical vaccination sessions at commune health centres.

## OUTCOMES

- a. Local people in target communes, particularly resettlement areas have had their awareness about personal hygiene and sanitation increased, understand the benefits of hand-washing with soap and have improved knowledge about ways to prevent epidemic diseases;
- b. Local people, authorities and mass organisations had actively participated in the communication activities such as awareness raising campaigns, communication integrated in village meetings and vaccination sessions.

## D. Support resettled families who have most difficulties in adapting to their new locations and environment through reduced environmental pressure

### 1. Reduce destructive fishing in the lagoon area

Target areas	22 resettlement areas in Phu Loc (10), Phu Vang (07) and Quang Dien (05)
Beneficiaries	147 vulnerable fishing HHs in resettlement areas and all members of fishing net knitting teams in resettlement areas
Implementing partners	Phu Loc and Phu Vang DARD, Quang Dien DIB

## OBJECTIVES

Contribute to the reduction of destructive fishing of immature fish and juvenile shrimps in coastal lagoons, through:

- a. Improved knowledge on effective fishing with gillnet fishing gears, and better awareness of the impacts fyke net fishing on biological diversification and lagoon environment;
- b. Project support to repair existing fyke nets with smaller mesh, replace current fishing gears with new fyke nets and provide gillnet fishing gears to vulnerable fishing households;
- c. Increase working capacity of net knitting teams in resettlement areas by providing them with lead fixing machines.



## OUTPUTS

- a. 07 two-day training courses on the techniques of gillnet fishing (04 courses), as well as on fyke net fishing and current regulations of authorities (03 courses) organised for 240 fishing people and members of 03 FAs in target resettlement areas;
- b. Project support included three layer gillnet (mesh size of  $2a=40$  mm) for 148 vulnerable fishing households in 17 resettlement areas in 3 target districts (40 units/household), new fyke nets (mesh size  $2a=18$ mm) for 36 households (10 units/household) and 15 lead fixing machines (fixing capacity of 60 lead pieces per minute) for fishing net knitting teams in Quang Loi (5) and Quang Phu (10) communes.

## OUTCOMES

- a. Trained fishing households in resettlement areas have understood advantages and disadvantages of various types of fishing gears in capture fisheries and learned how to effectively use gillnet fishing gears;
- b. 360 units of fyke nets with small mesh size were replaced with new fyke nets with mesh size of  $2a=18$ mm to prevent destructive fishing;
- c. Fishing net knitting teams in resettlement areas remarkably improved their working productivity and had their risk of being intoxicated by lead reduced;
- d. Vulnerable fishing households now have better conditions to improve their income and protect the environment as well as allow for sustainable biological diversification in lagoon areas.

## 2. Experiment model of raising chicken on biological padding in 3 districts

Target areas	23 target communes in Phu Loc (09), Phu Vang (03) and Quang Dien (11) districts
Beneficiaries	593 HHs in 23 communes, including 329 HHs who received project support (248 resettled vulnerable HHs in 13 target communes)
Implementing partners	CPCs, Quang Dien SAFFE, Phu Vang DARD, Phu Loc Station of Animal Husbandry and Health



## OBJECTIVES

Support the replication of an economically effective and environmentally-friendly livelihood model which helps vulnerable households in and outside of resettlement areas to generate an increased income, through:

- a. Capacity building and project support in piloting and replicating the model of raising chicken on biological padding, with active participation of farming households in target communes.

## OUTPUTS

- a. 23 one-day technical training on chicken raising with biological padding techniques is organised for 593 representatives of selected beneficiary households in all target communes of which people living in the resettlement areas account for 44.4% (263 hhs);
- b. Project support included 15,250 22-days old chicklings (50 per household), initial mixed food for chicklings, bio-products for making biological padding (enzyme of BTV Emiser, Balasa), vaccines and medicines for chicken disease prevention.

## OUTCOMES

- a. 100% trainees have grasped techniques of making chicken coop, taking care of chicken, making biological padding as well as measures of disease prevention and treatment for chicken;
- b. According to a comprehensive assessment conducted by the TAO in August 2017, surveying 208 out of 329 beneficiary HHs in 12 communes, the average survival rate, combining the three target districts, reached 71.2%;
- c. The implementation of the model has successfully addressed neighbourhood conflicts related to the bad smell caused by chicken raised in a traditional way, and raised awareness about the importance of, and directly contributed to, a cleaner environment;
- d. In terms of economic effectiveness, the activity requires short-term investments that allow for the fund to be revolved in short time, with income deriving from the sale of eggs, meat and live birds. The average weight of a three-month chicken when sold was 1.6 kg, with an average selling price of VND 78,000 per kg (about VND 124,800 per sold chicken);
- e. The grown chicken, however, was not favoured by local consumers, leading to low market demand and selling price per kg of chicken meat, compared to other local chicken breeds. While some households did not continue to raise chicken because of the ineffectiveness and inefficiency of the provided chicken breed, others said their households still continued to raise chicken with the biological padding techniques, as the technique reduces bad smell and cleans the environment, but decided to select a different chicken breed that is more productive and better consumed by local markets;
- f. One must add that this was the first chicken raising experience for most beneficiary households, and especially those living in resettlement areas (activity under Task 5), and helped to meet the challenges of both resettlement and non-resettlement rural communities who predominantly live of fishing activities, with the latter being increasingly affected by changing climate conditions.

### 3. Experiment model of poly-culture of grey mullet

Target areas	02 villages in Quang Dien district
Beneficiaries	16 resettled fishing HHs
Implementing partners	Quang Dien SAFFE

#### OBJECTIVES

Support to diversify aquaculture species in the Tam Giang lagoon, improve water environment of aquaculture ponds, and mitigate aquaculture disease outbreaks, and generate a sustainable income for farmers, through:

- a. Capacity building and project support to replicate model by a group of 16 selected fish farming households living in resettlement areas in Quang Dien.

#### OUTPUTS

- a. 02 one-day training courses on the model of poly-culture of grey mullet, giant tiger prawns, crabs and white-spotted rabbit fish in resettlement areas in Quang Dien district;
- b. Project support of 60% of grey mullet fingerlings and technical assistance during farming cycle to 16 fishing HHs in 02 villages in Quang Dien.

#### OUTCOMES

- a. The grey mullet survival rate has reached 71%, highest among the polyculture species, showing that the species adapts well to the lagoon water environment of Quang Dien district;
- b. The total production value of the model gained 555.7 million VND, of which, the grey mullet made up 25.5% of the total production value, increasing the average production value of one household was 8 865 000 VND;
- c. Socially, the model has helped the farmers to comprehend the process of farming many aquatic species in a pond. The mixed species in a pond helps improving the water environment and the model is considered an environmentally sustainable aquaculture method.







## TASK 6

### ACTIVELY PROMOTE AND IMPLEMENT DEMONSTRATED INNOVATIONS FOR PROTECTION AND RECOVERY FROM FLOODS AND STORMS

Outcome Indicator	Baseline	Progress		End of project (Dec'17)	
	Jun'14	Dec'15	Dec'16	Target	Results
19. By end of the project, the forestation/reforestation area for increased protection in target districts and communes has increased by at least 100 ha.	16,130	16,148.3	16,163.1	16,230	16,248.3

## A. Improve protective vegetation along shorelines, waterways and in dunes

Target areas	Scattered planting: 21 target communes in Phu Loc (8), Phu Vang (4) and Quang Dien (9) Intensive planting: 5 communes in Phu Loc (2) and Phu Vang (3)
Beneficiaries	Local households in 21 target communes
Implementing partners	TT Hue Centre for AgroForestry Design and Planning, Sub-Department of Forestry Protection, TT Hue DARD



### OBJECTIVES

Support management and protection of forest areas and contribute to mitigation of climate change, through:

- Technical assistance in formulation of technical design dossiers of 2015-2017 Forestation Action Plan for coastal areas of 09 target communes, and having them endorsed by CPCs;
- Generation of green belts for the protection of coastlines, lagoon and sand dunes as a sustainable ecosystem and promotion of protective forests' function to mitigate natural disaster damages;
- Generation of income and beautification of landscape for ecotourism development.

### OUTPUTS

- Field surveys and a consultation workshop were organised to seek advice and comments from relevant provincial, district and commune authorities and professional agencies;
- 01 Forestation technical design map, scale 1:10,000;
- 03 technical design dossiers and budget plans for 2015-2017 Forestation Action Plan in target districts were completed;
- A total of 130.3 ha (254,571 trees) were planted in 21 target communes in 3 target districts, including 92 ha scattered (83,014 trees), and 38.3 ha intensive forest planting (150,729 trees). More specifically:



Scattered/Intensive	Area (in ha) planted by tree species					
	Coconut	Hopea odorata	Casuarina equisetifolia	Pandanus tectorius pandanaceae	Dipterocarpus alatus	Acacia crassicaarpa
Total scattered	44.3	13.8	10.7	1.6	21.6	0
Total intensive	2.4	0	13.4	1.3	0	21.1
<b>Total area</b>	<b>46.7</b>	<b>13.8</b>	<b>24.1</b>	<b>2.9</b>	<b>21.6</b>	<b>21.1</b>

- e. Project support also included NPK fertiliser, Song Huong-labelled micro-organic, phosphate fertiliser, bamboo stakes of 1.5 m height and nylon binding string.

## OUTCOMES

- Technical design dossiers and budget plans for 2015-2017 Forestation Action Plans in 3 target districts were appraised and endorsed by the Sub-Department of Forestry Protection at provincial DARD, and district P.C.s;
- According to the results of an assessment of scattered tree planting conducted by TAO in Aug 2017, surviving trees accounted for an average of 63.2% of the total planted in three target districts. The surviving rates, however, vary very much from one species to another, with Dipterocarpus Alatus having reached a rate of 100%, coconut 87% and Casuarina Equisetifolia only 31.4%;
- As for intensive tree planting, casuarina and coconut are currently growing well, while in Phu Loc 100% planted Pandanaceae died due to the impacts of the typhoon that occurred in late 2017;
- Nevertheless, the activity has increased tree coverage in target communes and local people can now benefit from shadow and the economic benefits from selling coconut fruits. Their living environment has improved and awareness on planting trees for environmental protection raised.

## B. Improve awareness, skills and tools of Government to anticipate and respond to more severe impacts of climate change

Target areas	29 communes in 3 target districts
Beneficiaries	TOT: 103 beneficiaries, including CFs, Staff of mass organisations such as district and commune WUs, YUs, FUs, Veterans' Association and Red Cross Association Roll-out: 1,023 district, commune and village staff of P.C.s and mass organisations, and 2,205 key local people in 29 target communes
Implementing partners	Independent/Freelance Consultants from Hue Institute of Natural Resources & Environment and Central Region Centre for Rural Development, Phu Loc and Phu Vang DONRE, Phu Vang FUs, Quang Dien and Phu Loc DIB

## OBJECTIVES

Support to enhance community capacity for climate change adaptation and mitigation in project target communes, through:

- a. Increased knowledge and understanding of relevant concepts and general issues of climate change, activities of DRR, updated information on extreme climate events and climate change impacts, as well as effective strategies and solutions to respond to climate change and mitigate disaster risks in various socio-economic sectors of the localities;
- b. Application of knowledge on CC, as well as acquired execution and communication skills, into implementation of district/provincial action plan on climate change response.

## OUTPUTS

- a. 04 three-day TOT training courses on climate change and DRR, developing a response action plan and on how to use the booklet "Q&A on Climate Change and Sustainable Development" for 103 district and commune staff (25% female staff) in 3 target districts;
- b. 42 two-day trainings on CC and DRR organised for 1,023 communes and village staff in 20 target communes in three target districts;
- c. 81 half-day training classes with the participation of 2,205 key local people in 29 target communes in three target districts.

## OUTCOMES

- a. 16 TOT trainees assessed to be qualified principal master trainers and training assistants for roll-out training courses on CC and DRR for commune and village staff in 3 districts;
- b. All 3,331 trainees assessed to have had improved knowledge and understanding of relevant concepts and general issues of CC, and activities of DRR, extreme climate events, climate change impacts, and effective strategies and solutions to respond to CC and mitigate disaster risks;
- c. 2,205 trained villagers have understood the climate change impacts on agricultural activities, animal husbandry, aquaculture and fishing activities, and will become core people to communicate to other villagers on climate change adaptation.



## TASK 7

### HELP REDUCE POLLUTION THROUGH COMMUNITY COOPERATION, MANAGEMENT AND ACTION

Outcome Indicator	Baseline	Progress		End of project (Dec'17)	
	Jun'14	Dec'15	Dec'16	Target	Results
20. By end of the project, the quality of surface water at aquaculture ponds and lakes that is compliant with TT Hue PPC Decision No 31/2011/QĐ-UBND has improved as per the required standard on at least 5 out of 6 parameters (NH <sub>3</sub> , H <sub>2</sub> S, S%, pH, Alkalinity (K), Transparency) in at least 50% of sampled sites.	22.2%	33.3%	44.4%	50%	66.7%
21. By end of the project, at least 3,000 HHs across target areas practice solid waste separation at source.	N/A	1,047	2,026	3,000	3,553

22. By end of the project, the percentage of HHs in target communes that have their solid waste effectively collected has increased by 30%.	32,597	37,112	39,915	42,376	44,030
23. By the end of the project, the percentage of HHs in target communes using at least one renewable energy source has increased by at least 10%.	11,426	N/A	N/A	12,569	3,939

## A. Establish an effective, feasible and affordable mechanism to manage pesticide/herbicide waste in target areas dunes

Target areas	21 communes in Phu Loc (9), Phu Vang (5) and Quang Dien (7)
Beneficiaries	All farming households, local people, agriculture cooperatives, as well as commune and village staff in three target districts
Implementing partners	Phu Loc and Phu Vang Plant Protection Stations, Phu Loc Department for Economics and Infrastructure, Phu Vang DONRE, Quang Dien DIB



### OBJECTIVES

Support to reduce water and land pollution and contribute to environmental protection, through:

- Awareness raising on pesticide impacts on human beings and the environment;
- Development and construction of tanks to collect empty pesticide and herbicide bags/bottles;
- Increased capacity in transforming agriculture by-products into bio-organic fertiliser.

### OUTPUTS

- 05 two-day training courses and 04 consultation and awareness raising workshops on safe and effective use of pesticides/herbicides organised for 236 farmers in 09 communes in three target districts;
- 431 tanks for collection of empty pesticide/herbicide bags/bottles built in 14 communes in three target districts and handed over to local agricultural cooperatives for their management and use;
- 15 one-day training courses on bio-fertiliser making for 812 local farming households in 09 target communes in Phu Vang;
- 48kg of MICROMIC3 procured and provided for 03 local households who are engaged in the demonstration activity

of bio-fertiliser making in 03 villages in Phu Xuan commune (Phu Vang district) and the replication (864kg) by 567 farmers (including 220 women) in 09 target communes in the same district.

## OUTCOMES

- A model of collection and disposal of empty pesticide/herbicide bags and bottles was built and piloted in a total coverage area of 1 617 ha in 3 districts, in order to reduce empty pesticide/herbicide bags/bottles dumped at paddy fields
- Local farmers had increased awareness and improved knowledge about safe pesticide/herbicide use and its impacts on human beings and the environment, and have actively participated in collecting and dumping empty pesticide/herbicide bags/bottles into constructed tanks;
- 100% of farmers attended trainings on safe use of pesticides/herbicides, making bio-fertiliser, were enthusiastic, and have acquired basic knowledge and information about the use of Micromic 3; applied the technology of treating agricultural waste into micro-organic fertiliser;
- Through discussions, farmers and trainers exchanged professional knowledge, share practical experiences as well as difficulties encountered in the production process of bio-fertiliser.

## B. Establish a model for waste collection, separation and treatment following the 3R method

Target areas	14 communes in Phu Loc (3), Phu Vang (3) and Quang Dien (8)
Beneficiaries	Local people in target communes, district/commune/village staff, commune P.C.s, mass organisations, local market management boards, commune waste collection groups, as well as local kindergartens and pupils from primary and secondary schools
Implementing partners	3 district FUs, Phu Loc and Quang Dien DIB, Phu Vang and Quang Dien DONRE, TT Hue Centre for Application of Technology and Sciences



## OBJECTIVES

Support reduction of waste disposed into the environment, through:

- Increased awareness on waste classification and treatment at different levels;
- Experimenting and replicating the model of household waste classification and treatment following 3R method in 7 communes in 3 target districts;
- Project-supported facilities and equipment to ensure that waste is disposed in regulated locations that will contribute to protecting the living environment in the process of local economic development.

## OUTPUTS

- a. 71 training courses on the 3R model, procedures and techniques of producing micro-biological fertilisers from organic waste for local communities, farmers, commune and village staff, school teachers and local people in target communes;
- b. 03 awareness raising workshops on solid waste collection, separation and disposal organised in 03 target districts;
- c. 56 village communication sessions attended by 2,281 local people in 3 target districts and various communication material (posters, billboards, panels, banners, leaflets, copies of commitment forms) designed, printed and distributed at main roads, schools, P.C. premises, as well as to local people and workshop/communication sessions participants;
- d. 24 articles were broadcasted several times on the local radio to raise awareness of local villagers on waste separation in Quang Thanh (Quang Dien) and Phu My (Phu Vang) communes;
- e. Provision of labour safety facilities and collection equipment to local solid waste collectors in 07 communes, including handcarts, rubber boots and gloves, labour protection clothes, light-reflecting vests, protection hats, shovels, protection masks, rakes, micro-bio-product spraying bottles, as well as waste bins and buckets;
- f. Provision of 8,554 25L waste bins for for 4 218 households and local kindergartens and schools, as well as 68 240L HDPE plastic waste bins, 10,500L handcarts and 01 solid waste container for communal use;
- g. 2 10m<sup>3</sup> boat-shaped waste containers (Phu Loc), 26 waste collection parking lots (Quang Dien), 04 solid waste transfer stations (Phu Vang) and 01 access road to Quang Zuyen village waste transfer station (Phu Vang);
- h. The 3R model was regularly monitored by DONRE staff, CPC staff and village leaders and 33 monitoring and final evaluation meetings were held to assess the model implementation.

## OUTCOMES

- a. 100% local people who have participated in trainings and awareness raising campaigns assessed to have improved knowledge of environmental protection, skills of household solid waste separation at source and known how to produce micro-biological fertilisers from organic waste. The posters have contributed to raising the communities' awareness on waste management and trainees have actively disseminated knowledge to fellow villagers;
- b. Over 80% of beneficiary households in three districts have used the project tools as instructed and practiced waste separation at source according to the project requirements;
- c. All target communes have actively communicated to promote the compliance of the regulation on organisation and operation of the waste collection group. It has committed to continue the communication activities to target the goal of 100% of local villagers implementing the model from the current status of over 80%;
- d. Following initial results of the pilot intervention in three villages in Quang Thanh commune (Quang Dien), the District FU launched a movement to develop 3 village FUs to become "3 clean" (clean houses, roads/coast/river banks and fields/aquaculture areas). 104 village FUs have joined the movement;
- e. All three districts have seen a remarkable improvement in terms of improper dumping of untreated or unclassified household solid waste. The waste quantity disposed for transportation to the landfill in Quang Thanh (Quang Dien) and Loc Binh (Phu Loc) has been reduced by 20% as compared to prior to the model performance. This has helped to reduce the local government budget to pay for the waste transportation, reduce the waste quantity dumped in the environment and eventually reduced the environmental pollution at commune and district level.



## C. Establish an effective, feasible and affordable mechanism to manage waste water in target areas

### 1. Develop and issue a regulation on market waste water treatment and support its management

Target areas	05 markets in Phu Loc (01) and Quang Dien (04) districts
Beneficiaries	436 small-scale traders in Quang Dien (296) and Phu Loc (140), and 105 households living nearby and in aquaculture areas
Implementing partners	Phu Loc and Quang Dien DIB



#### OBJECTIVES

Contribute to the improvement of waste water and solid waste management at local markets and protection of adjacent aquaculture areas in target communes, through:

- Development of a proper system of waste water disposal and solid waste collection system at local markets;
- Clear regulations on waste water disposal and solid waste collection, to be endorsed by CPCs, disseminated and applied to the management of local markets.

#### OUTPUTS

- 03 meetings to develop and consult draft regulations on waste water and SWM with 240 small scale traders;
- 30 interviews with 140 market managers/staff and small scale traders to collect info for development of regulations;
- 05 sets of regulations developed and displayed on boards at 3 markets;
- 05 wastewater collection and treatment systems constructed and upgraded, including waste water disposal tanks, upgraded drain ditches and new construction of water collecting trenches;
- 01 base area surrounding Con Gai market in Quang Dien reinforced with mixed stone concrete;
- 02 waste bins and 01 pump for collection and cleaning in fish market area at My Loi market in Phu Loc district.

#### OUTCOMES

- Waste water disposal systems built and put into operation at local markets to protect surrounding aquaculture production area;
- Development, endorsement and promulgation of regulations for efficient waste water and solid waste management in close cooperation with market management, small scale farmers and local households;

- c. Collection and disposal of waste water discharged from fish selling areas leads to reduced contamination of markets and surrounding areas;
- d. Improved awareness and behaviour of dumping solid waste in markets and surrounding areas among local people, especially among small scale traders.

## 2. Pilot and replicate model of community-based management of aquaculture wastewater and disease control

Target areas	Pilot: 7 communes in Quang Dien (4) and Phu Loc (3) Replication: 9 communes in Phu Loc (5) and Phu Vang (4)
Beneficiaries	Pilot: 247 aquaculture households in Quang Dien (155) and Phu Loc (92) Replication: 997 aquaculture households in Phu Loc (865) and Phu Vang (132)
Implementing partners	Quang Dien and Phu Loc DARD, TT Hue Sub-Department of Fisheries

### OBJECTIVES

Establish a community-based aquaculture wastewater and disease system, through:

- a. Development of four models of implementation of the regulation on community-based management, supervision and control of aquaculture waste water and disease control, on the basis of the pilot models conducted in Quang Dien and Phu Loc districts;
- b. Education and mobilization of local farmers to endorse and implement the regulation on community-based management, supervision and control of aquaculture waste water and disease control;
- c. Documentation and institutionalization of regulations;
- d. Building capacity through training on aquaculture technique of some brackish water species and aquaculture diseases preparedness.

### OUTPUTS

- a. 15 models have been implemented covering an area of 248.43ha;
- b. 21 consultation workshops on the implementation of regulations on community-based management of aquaculture wastewater and diseases in target communes;
- c. 43 one-day training classes on farming brackish water species and the disease control and training class on the regulation on community-based management, surveillance and control of aquaculture diseases and wastewater to 1 214 aquaculture farmers;
- d. 21 final evaluation workshops on the implementation of the regulation on community-based management of aquaculture wastewater and disease control in the four communes.

## OUTCOMES

- a. Capacity and awareness on management of aquaculture water supply and water waste of local authorities and fisher-folk have been improved and regulations on community-based management of aquaculture wastewater and disease control applied by local farmers;
- b. After the workshops in Phu Loc target communes (Replication phase), four decisions have been approved by the respective CPCs including 3 decisions approving the revise regulations of aquaculture areas in Vinh Hung, Loc Dien and Vinh Giang and one new regulation on aquaculture area in Vinh Hai. These regulations have been disseminated to the relevant aquaculture breeders;
- c. The tested water environmental parameters have been within the allowed standards and the occurrence of aquaculture diseases has been reduced by 50% as compared to before the model application. Therefore, the farming households have gained a profit of 15-20 million VND that was not very high because of low price of aquatic species due to impacts of the marine environmental incident;
- d. The incident of dead shrimp/fishes occurred in the coastal area of Vinh My commune due to polluted effluents discharged by Formosa Steel Company in Ha Tinh province. Aquatic species farmed by the model households also died because of contaminated water source. The model households had to re-culture shrimps. The farmed fishes/shrimps have been growing well from July – September and farming households have gained a profit of 15-20 million VND/Ha.

## D. Increase familiarity with, and use of renewable energy sources, and decrease the level of environmental pollution

Target areas	Solar heating: 11 kindergartens in Phu Vang (4), Quang Dien (3) and Phu Loc (4) Biogas digesters: 2 communes in Quang Dien district
Beneficiaries	Solar heating: 2,050 kindergarten children and 178 teachers in three target districts, including 116 poor and 457 resettled children Biogas digesters: 20 farming households in 2 communes in Quang Dien district, including 4 very poor
Implementing partners	Phu Vang and Quang Dien DIB; Quang Dien SAFFE



## OBJECTIVES

Encourage the use of renewable energy resources to heat water and reduce environmental contamination, through:

- a. Support to kindergartens with solar heating systems for improved kindergarteners' caretaking with hot/warm water in daily activities, and thus increasing protection of kindergarteners' physical health, while at the same time, saving electricity;
- b. Support to generate biogas energy for daily household activities and to address issues related to environmental contamination caused by pig faeces.

## OUTPUTS

- a. 22 solar heating systems for 11 kindergartens, including solar water heaters, extra water tanks, hot and cold shower taps, hand washing taps and a cold and hot water pipe system;
- b. 01 training course on use and O&M of biogas digesters for 20 farming households in 2 target communes;
- c. 20 biogas digesters for 20 target households financially supported (50% construction material cost, 100% labour and 50% other accessories, gas lamps, stoves, etc) in 2 target communes;
- d. 01 conclusion workshop to evaluate biogas activities, attended by 15 stakeholders in 2 target communes.

## OUTCOMES

- a. An average saving of 120 000 VND/month on electricity at schools, using solar energy and 200 000 – 250 000 VND/month in domestic activities, using biogas, will eventually contribute to health improvement and reduced environmental pollution;
- b. Solar heating system as demonstration model introducing green growth solutions for energy saving through reduction of other fuels;
- c. Increased awareness and familiarity of local communities with use of solar and biogas as renewable energy;
- d. Biogas digesters reduced pollution of living environment caused by pig faeces.



## TASK 8

### DEVELOP AND PROMOTE METHODS FOR PARTICIPATORY MANAGEMENT, USE AND CONSERVATION OF NATURAL RESOURCES

Outcome Indicator	Baseline	Progress		End of project (Dec'17)	
	Jun'14	Dec'15	Dec'16	Target	Results
24. By end of the project, the area of Tam Giang-Cau Hai lagoon earmarked as Fisheries Conservation Zone has increased by 50%.	316	567	567	474	567

## A. Protection of natural resources sites

### 1. Establishment of Fishery Conservation Zones and support to Fishery Associations in establishing patrolling teams

Target areas	10 FCZs in Quang Dien (3), Phu Vang (5) and Phu Loc (2) districts, with a total surface of 308 Ha 17 communes in Quang Dien (7), Phu Vang (3) and Phu Loc (7) districts benefitted from patrol boats
Beneficiaries	Thousands of fishing households and fishing people residing along Tam Giang-Cau Hai lagoon, including members of Executive Boards of and Standing Committee of FAs, members of patrolling teams, fishing households living in FCZs and in resettlement areas, as well as FA members
Implementing partners	Quang Dien and Phu Loc DARD and 3 district DIBs

### OBJECTIVES

Support to restore and enhance the management of and protect aquatic resources, through:

- Support in the establishment of FCZs for improved protection of spawning grounds and nursery areas;
- Improved knowledge, capacity and skills in FCZ management and restoration of aquatic resources;
- Establishment of legal rights for FAs to exploit aquatic resources
- Legal establishment of patrolling teams, provision of boats and support in establishment of regulations on patrolling operations

### OUTPUTS

- 06 training courses and 03 workshops on skills, knowledge of nursery area protection, regulations on management and exploitation of fishery conservation zone for 187 members of FAs, patrol teams, CPC staff, CFs, fishing households, vulnerable households, etc;
- 01 study tour to Con Cat FCZ for 18 members of the Standing Committee of 03 FAs;
- 110 concrete demarcation poles and demarcating sign boards, 591 concrete and natural fish aggregating devices (FADs) and 2 triple faceted billboards for 773 fishing households and 119 members of 07 FAs;
- 50,000 species of giant tiger prawn, 2 000 crab species and 10 000 units of fingerlings released into 3 FCZs;
- 18 patrol teams established and patrol boats provided for 18 FAs, development of regulations on patrolling operation, work plan and O&M, as well as provision of equipment such as torches, life-jackets and loudspeakers;
- 02 regulations on conservation approved by CPCs, for Hon Voi – Vung Deo (Loc Tri, Phu Loc) and Da Dam (Loc Dien, Phu Loc) under Decision No. 16 / QD-UBND dated 15/04/2015 and Decision no 205/QD-UBND dd 26/12/2015, respectively.



## OUTCOMES

- a. Improved knowledge among fishing people and FAs on fishery conservation, protection of nursery areas, restoration of aquatic resources, prevention of destructive fishing behaviours;
- b. Empowerment of concerned FAs to exploit aquatic resources;
- c. Promulgation of regulations on management of FCZs;
- d. Better management and protection of aquatic resources through establishment of Conservation zones, patrolling teams and species restoration;
- e. The area earmarked as FCZ by the Government increased from 316 ha in 2014 to 567 ha in late 2017.

## 2. Support process of granting fishing rights to 24 Fishery Associations

Target areas	Loc An commune, Phu Loc district 3 target districts
Beneficiaries	Members of 24 FAs and their Executive Boards, as well as relevant CPC staff
Implementing partners	3 district DARD



## OBJECTIVES

Enhance ownership and management responsibility of fisher folk community, in cooperation with local authorities and relevant competent agency, for a better and more sustainable exploitation of aquatic resources, through:

- a. Development of a fishing right allocation document, in zones which for fishing are identified as well as the allowed quantity of catch per member;
- b. Documentation and institutionalisation of regulations on capture fisheries
- c. Disseminating and mobilising the FA members to follow the FA charter and fishing right allocation document which is developed by the community;
- d. Capacity building of the Executive Board and members of the FA on the community roles in the protection of aquatic resources and lagoon environment and disseminate the regulation on the management of lagoon capture fisheries in Thua Thien Hue province.

## OUTPUTS

For each FA:

- a. 01 lagoon field survey in order to position functional zones of the lagoon water surface;

- b. 01 Loc An lagoon status map and 1 functional zoning plan;
- c. 01 draft of lagoon fishing permit granting document to the FA;
- d. 01 consultation workshop to comment on the fishing right allocation document, with the participation of CPC staff, FA and FA Executive Board members.
- e. 01 capacity building training for FA members on community roles in the natural resources and environmental protection, management skills and water surface self-managed models
- f. 01 lagoon fishing permit has been granted to each of the 24 FAs by the Sub-Department of Fisheries
- g. 01 fishing permit announcement ceremony organised with the participation of CPC staff, and respective FA members.

## OUTCOMES

- a. Granting lagoon fishing permit to the FAs helped the local fishing community to manage and control the aquatic resources; contributes to reducing the administrative management cost, and raising local people's responsibility for sustainable use of aquatic resources;
- b. After being updated with the new regulation on lagoon capture fisheries that were enacted by the Province, trainees are now more aware of their responsibilities in the lagoon aquatic resources and environmental protection.

## B. Propagation of adaptive species

### 1. Campaigns in exterminating harmful plants and rodent control

Target areas	3 target districts
Beneficiaries	Mimosa pigra L: 150 youths in Phu Vang and 2,906 households in Quang Dien districts Rodent control: 1060 farming households in Quang Dien and Phu Loc districts
Implementing partners	Quang Phu CPC (Quang Dien), Phu Vang YU, Phu Loc District Station for Plant Protection and Quang Dien DARD

## OBJECTIVES

Support improved protection of agricultural crops in target communes, through:

- a. Awareness raising about and support in exterminating 100% of harmful Mimosa Pigra plant;
- b. Increased knowledge of rodent hazards and methods to trap and eliminate rodents in houses, vegetable gardens and at paddy fields.

## OUTPUTS

Mimosa Pigra L extermination

- a. 06 one-day training course on how to exterminate the Mimosa pigra L plants attended by 150 youths (01 course)

and 62 representatives of local households and commune/village authorities (05 courses);

- b. 5,000 leaflets/fliers, 10 banners, 102 posters and 37 messages broadcasted on P.A. systems and District Broadcast Station, to communicate on harms of and on measures to exterminate plant;
- c. 28 clean-up campaigns to root out Mimosa pigra L plant with participation of 1500 local people, YU members and pupils in Phu Vang, and 600 people in Quang Dien;
- d. 02 evaluation workshops organised with attendance of 58 participants in Phu Vang and 62 representatives of commune & village authorities, mass organisations and local households in Quang Dien;

#### Rodent control

- a. 32 one-day training courses on methods of effective rodent trapping attended by 1 060 farmers in 17 target communes in Phu Loc and Quang Dien districts;
- b. 14,100 rodent traps were procured (80% project support) and provided for local farming households;
- c. 02 four-day campaigns on rodent killing were organised in the area of 130ha of paddy field and vegetable gardens in 2 communes in Phu Loc with the participation of 2 892 local people.

#### **OUTCOMES**

- a. 100% trainees assessed to have applied their learned knowledge into the campaign to root out the Mimosa pigra L plants in their villages as well as on how to trap and kill rodents;
- b. 2,82 ha of land in 12 villages of Quang Phu commune had the Mimosa pigra L plants rooted out, equivalent to 100% of the Mimosa pigra L plant area exterminated;
- c. Communities have succeeded to exterminate nearly 60% of the harmful plant and 7,738 rats/mice were caught and killed during the rodent control campaign, thus contributing to environmental protection and natural resource management;
- d. In Phu Loc, 445 ha of paddy field and vegetable gardens and 20km of dyke, protection edges of paddy field and aquaculture farms are now better protected against the damage and destruction caused by rodents.

## 2. Experiment saline-tolerant crop varieties in low-lying areas: New rice varieties

Target areas	3 target districts
Beneficiaries	682 local farmers living in low-lying areas of 19 target communes attended training and 278/682 benefited from project support
Implementing partners	Phu Loc district Station for Plant Protection, Phu Loc and Phu Vang DARD and Quang Dien SAFFE



### OBJECTIVES

Support introduction of new rice varieties in saline-contaminated, low-lying areas in order to improve rice productivity, economic efficiency and livelihoods of vulnerable HHs, through:

- Capacity building on how to grow various salinity-tolerant rice varieties and on how to use pesticides and fertilisers effectively;
- Project support including rice seeds, fertilisers and pesticides to farming households that participated in the rice testing and replication activities.

### OUTPUTS

- 41 technical training sessions on XT27, RVT, JO2 and Ma Lam 48 rice variety cultivation and use of pesticides attended by 682 local farmers in 19 target communes;
- 278 households were supported with rice variety XT27, RVT, JO2 and Ma Lam 48 seeds, fertilisers and pesticides in 71 ha of paddy field in 19 communes.

### OUTCOMES

- The successful implementation of the models has found that the new high-quality and high-productivity rice varieties can adapt well to the saline and aluminous area along the Tam Giang-Cau Hai lagoon, thus effectively addressing the issues of dead rice, which forces farmers to re-sow several times, as well as solving issues related to abandoned rice paddy fields.
- As compared to traditional rice varieties, most new models generated a higher profit with a higher productivity and selling price ranging around VND6,000/kg, similarly to the traditional model;
- Expenditure depends from one model to another, but is mostly lower than in the case of traditional varieties, thanks to the lower amount of sowed seeds needed, and less fertilisers and pesticides being sprayed;
- All pilots and replications have thus been successfully applied and the models can be further applied in other communes as a way to adapt to climate change.

### 3. Experiment saline-tolerant crop varieties in low-lying areas: Watermelon model replication

Target areas	Phu Dien and Phu Xuan communes, Phu Vang district
Beneficiaries	60 farming households in 2 target communes
Implementing partners	Phu Vang DARD

#### OBJECTIVES

Support replication of adaptive agricultural species in target communes, through:

- a. Replication of Thailand watermelon O.P. 175 model in 03ha of saline-intruded land areas in Phu Dien (02ha) and Phu Xuan (01ha) communes.

#### OUTPUTS

- a. 08 technical training sessions on how to grow water melon organised for 20 farmers (6/20 female) in two target communes;
- b. 1.8 kg water melon seeds O.P. 175, 900 kg NPK fertiliser, 1200 kg lime and 160 bottles of pesticides provided;
- c. 02 at-field workshops to evaluate the replication results attended by 60 farmers (18/60 female) in two target communes.

#### OUTCOMES

- a. Economic efficiency:

Productivity (kg/ha)	Selling price (VND/kg)	Total revenue (VND/ha)	Total expenditure (VND/ha)	Gross profit (VND/ha)
3,000	8,383	25,150,000	3,361,667	21,833,333

- b. The model replication can thus be considered as an efficient alternative for income generation in the context of climate change. 25 farming households in Phu Dien (11 HHS) and Phu Xuan (13 HHS) communes found to have adopted and implemented the water melon models by themselves.

#### 4. Experimenting drought-resistant crop varieties: Peanut variety TK10

Target areas	3 communes in Phu Loc district
Beneficiaries	102 farming households (38 vulnerable hhs), including 57 households who received project support
Implementing partners	Phu Loc SAFFE

#### OBJECTIVES

Improve living conditions and increase income by generating stable jobs in a new agricultural sector, through:

- a. Support in piloting peanut variety TK10 model on 1ha of drought-prone land, with the active participation of local farmers in Loc Tri and Vinh My communes;
- b. Replication of the model to produce high quality peanut, following the successful experimentation of the new peanut variety.

#### OUTPUTS

- a. 10 technical training sessions on how to grow peanut variety TK10 were organised for 102 households in 3 target communes for pilot (08 sessions, 62 participants) and replication (02 sessions, 40 participants);
- b. 102 households participating in implementation of peanut variety TK10 model (both pilot and replication) were provided with 750 kg peanut TK10 seeds, 420 kg NPK fertiliser, 1,400 kg Phosphorus fertiliser, 90 kg Kali and 400 limes;
- c. 02 final evaluation workshops were organised in two pilot communes.

#### OUTCOMES

- a. Peanut is an oleaginous crop with broad adaptation to tropical and semiarid climates, although yield is often harmed when plants face water irregularities during the reproductive phase. The testing of a new, drought-resistant variety has shown that, as compared to the local peanut variety, it can generate a higher gross profit (57,840,000 VND/kg as compared to 45,660,000 VND/kg) with less expenditure, and a productivity of 3,450 kg/Ha (900 kg/Ha higher than the local variety).
- b. The new peanut variety has been considered successful and has been replicated in Vinh Hai and Vinh My communes at a scope of 40 households farming in an area of 20ha, including 24 vulnerable households (60%).



## 5. Experimenting crops in abandoned wetlands/rice paddy fields: Green bean

Target areas	Villages 2, 3 and 4 in Vinh Hai commune and Luong Vien and Diem Truong villages in Vinh Hung commune, Phu Loc district
Beneficiaries	101 farming households who own abandoned rice fields due to water shortage in My Hai Agricultural Cooperative (Vinh Hai) and Bach Thang cooperative (Vinh Hung)
Implementing partners	Phu Loc District Station for Plant Protection



### OBJECTIVES

Improve living conditions of farmers by increasing their income, through:

- Increased knowledge and skills on how to grow crops in rice paddy fields and other wetlands that were abandoned due to water shortage in the dry season;
- Project support in piloting and replicating green bean model in Vinh Hai and Vinh Hung communes with the active participation of 101 farming households.

### OUTPUTS

- 03 half-day technical training classes on farming green bean on abandoned rice paddies were attended by 101 participants, including 57 representatives from vulnerable households;
- 101 households were provided with green bean seed, fertilisers, technical training and technical assistance during farming cycle, and implemented the model on the total area of 7.55ha;
- 01 model evaluation workshop to present model results and share experience of the model.

### OUTCOMES

- 101 farmers in Vinh Hai and Vinh Hung communes have grasped and applied the technical knowledge and skills of farming green bean on abandoned rice paddies, such as appropriate use of pesticides, key diseases of green bean, etc;
- In terms of economic efficiency, participating farmers generated an income of 18-20 Million VND/ha, which is higher than that of rice cultivation on the same land area; As compared to farming 1 ha of rice on this land area, the net profit obtained from cultivating 1 ha of green bean was 2,000,000vnd higher than rice. Investment cost was lower, as well as the use of pesticide, thus improving product quality as well as reducing environmental pollution;
- The DX208 green bean variety has a short cycle and is very suitable for cultivation on abandoned, dry rice paddies.

## 6. Experimenting crops in abandoned wetlands/rice paddy fields: Lotus/ Fish poly-culture

Target areas	Loc An and Vinh Giang communes, Phu Loc
Beneficiaries	39 local people participated in training session and 21/39 benefited from project support. Other households who own low-lying fields in two communes were indirect beneficiaries and 49 people participated in the final workshop.
Implementing partners	Phu Loc SAFFE



### OBJECTIVES

Reduce abandoned low-lying wetland area induced by climate change, increase income and restore the landscape, through:

- Capacity building and project support in testing the model of lotus production combined with spotted snakehead fish farming on low-lying land that was left fallow due to excessive water stagnation.

### OUTPUTS

- 01 training session for 39 training participants on techniques of farming lotus and spotted snakehead fish, including 06 women and 02 participants from vulnerable households;
- 21 selected households have been supported with fingerlings and lotus seeds;
- 01 final evaluation workshop was organised and attended by 42 participants, including 10 CPC staff and other farmers in two communes.

### OUTCOMES

- Lotus seeds are high value products that can be sold at local markets and spotted snakehead fish is considered a valuable food source in the region. The abandoned low-lying fields in target communes have been efficiently used for farming lotus and fish and the model has successfully contributed to the generation of new jobs and increased income;
- Economically speaking, according to 1ha of mixed farming, the model achieved a total revenue of 94,664,000vnd (Lotus: 66,664,000 VND, Fish: 28,999,999 VND), generating a profit of 49,584,000 VND/Ha, and could thus be considered as an efficient model to be applied in abandoned wetlands, where the cultivation of rice is no longer a reliable option.

## C. Establishment of community-based environmental regulations

### 1. Provide water quality monitoring tools and training in tools use, data recording and reporting

Target areas	16 communes in Phu Loc (4), Phu Vang (5) and Quang Dien (7)
Beneficiaries	890 farmers, FA members and aquaculture teams, Phu Vang DARD and Quang Dien SAFFE staff
Implementing partners	PV DARD, QD SAFFE, TT Hue Sub-Department of Aquaculture, TT Hue Provincial DARD and FAs

#### OBJECTIVES

Support the improvement of aquaculture water monitoring in target communes, through:

- Increased knowledge on how to measure and analyse aquaculture water monitoring parameters;
- Support with tools, including test kits and devices, and know how to monitor aquaculture water through regular measurement of salinity and pH parameters, to local aquaculture households, aquaculture teams, FAs in target communes, as well as professional agencies;
- Establishment of groups of FAs/Cooperatives/aquaculture teams to provide periodical water monitoring data that help Sub-Department of Aquaculture monitor the water quality in the lagoon areas and aquaculture ponds.

#### OUTPUTS

- 15 two-day technical training courses on how to use test kits and measuring devices to collect, record, analyse and report data for 890 members of FAs, aquaculture households and aquaculture team leaders;
- 176 aquaculture households, aquaculture teams, FA members, as well as PV DARD and QD SAFFE staff, benefited from the project support of pH test kits and salinity measuring devices.

#### OUTCOMES

- 100% trained farmers assessed to have known how to use pH test kits, and salinity measuring devices and know how to record and report measurement results for pH, K, NO<sub>3</sub>, PO<sub>4</sub>, NH<sub>4</sub>;
- 20 groups of FAs/Cooperatives/aquaculture teams have been established to collect and provide periodical data for district DARD and SAFFE departments.

## 2. Assess lagoon management issues and fishing practices and adherence to local regulations

Target areas	TT Hue Province
Beneficiaries	All people living in the lagoon area
Implementing partners	TT Hue Sub-Department of Fisheries

### OBJECTIVES

Support in reporting, synthesising and assessing in details the status of Tam Giang –Cau Hai lagoon aquatic resources management in the establishment period of FCZs from 2009-2015, and vision 2016-2020, focusing on the development of in-depth technical solutions of the system, through:

- a. Development of draft regulation on the management of TTH lagoon capture fisheries for submission to TTH PPC for approval.

### OUTPUTS

- a. Working sessions with 15 FAs, 15 CPCs, 05 District DARDs, TT-Hue Provincial Fisheries Associations, CMD Center, Center for Community Research and Development on issues related to lagoon fisheries conservation zones and the decision 4260/2005-UBND on management of lagoon capture fisheries with the total participation of 159 persons;
- b. 01 conference on the evaluation of the lagoon fisheries conservation zones' establishment in the period 2009-2015 and vision for 2016-2020 attended by 82 people;
- c. 02 consultation workshops on the 1st draft regulation in Quang Dien and Phu Vang districts with the participation of 66 persons;
- d. 2nd draft regulation has been consulted with 10 relevant stakeholders;
- e. 01 endorsement workshop of the 3rd draft regulation (final version) with the participation of 39 persons.

### OUTCOMES

- a. TT Hue PPC promulgated the decision no 84/216/QD-UBND dated 15 December 2016 approving the regulation on the management of the lagoon capture fisheries;
- b. The regulation has been revised and finalised following comments and inputs from relevant stakeholders, including fisher folk communities, local authorities at various levels, and technical departments;
- c. The enacted regulation is the legal basis for the relevant parties to better and closer manage the lagoon activities in line with the current context.



## TASK 9

### HELP IMPROVE PRODUCTION AND YIELDS IN ADAPTIVE AGRICULTURE AND ENSURE GREATER DIVERSITY, RESILIENCE AND EQUITY INCLUDING THROUGH INNOVATION

Outcome Indicator	Baseline	Progress		End of project (Dec'17)	
	Jun'14	Dec'15	Dec'16	Target	Results
25. Number of farming HHs in sampled areas that have adopted at least one new adaptive variety or technology introduced during the project period.	0	777	2,417	N/A	3,011
26. By end of the project, the percentage of HHs in target communes that have access to a newly established or improved community-based savings & credit fund has increased by 15%.	8,615	N/A	N/A	9,907	9,697

## A. Identification and promotion of more adaptive, resilient and effective productive activities in agriculture

“Innovation” was a key element in the implementation of VIE033 (see project title), especially in piloting and partially replicating a series of models across three target districts. Successes range from capacity building, to increased income generation through, for instance, successfully harvesting 9000m<sup>2</sup> of onion or increased weight of and decreased occurrence in disease among livestock, such as chicken. With the aim of stabilising livelihoods through increased resilience and productivity, the project introduced the following models, some of which (in bold) will be presented in more detail below:

Crops	Livestock (Biological methods)	Aquaculture
<ul style="list-style-type: none"> <li>• <b>Red dragon fruit</b></li> <li>• <b>Straw mushroom</b></li> <li>• Rodent control (p.74)</li> <li>• <b>White onion</b></li> <li>• Mixed gardens ('Truoi' green tea, green pomelo and pink banana)</li> <li>• Rice in large paddy fields</li> <li>• Salinity-tolerant rice varieties</li> <li>• <b>ICM rice-cultivation</b></li> <li>• Centella Asiatica (p.92)</li> <li>• Muskmelon (Cucumis Melo)</li> <li>• Turmeric root</li> <li>• Green pomelo</li> <li>• Crop disease preparedness and safe usage of pesticides</li> </ul>	<ul style="list-style-type: none"> <li>• Pigs</li> <li>• Chicken (p.56)</li> <li>• Reproductive goat</li> <li>• Muscovy duck</li> <li>• <b>Egyptian chicken</b></li> <li>• <b>Livestock disease preparedness</b></li> </ul>	<ul style="list-style-type: none"> <li>• Orange-spotted rabbit fish</li> <li>• Grey mullet poly-culture</li> <li>• <b>Rice-field eel</b></li> </ul>

### 1. Support training and implementation of the red dragon fruit model in Phu Loc district

Target areas	Vinh Giang and Vinh My communes, Phu Loc district
Beneficiaries	60 farming households for training and 22/60
Implementing partners	Phu Loc SAFFE

## OBJECTIVES

Support development/promotion of adaptive, resilient and effective productive activities in agriculture, through:

- Technical and material support to farming households in target communes to pilot the red dragon fruit model.



## OUTPUTS

- a. 02 days of theoretical training on growing red dragon fruit, 06 practical training sessions at the field and 02 evaluation sessions attended by 60 interested farmers in two target communes;
- b. 220 red dragon fruit branches, 55kg of bio-fertiliser, 55kg of lime and 220 stakes were procured and provided for 22 participating households to implement the model.

## OUTCOMES

- a. Local farmers have successfully cultivated 220 red dragon fruit plants and the model is considered as an efficient way to improve livelihoods, as there is also a high demand for this fruit at the market. The selling price of red flesh dragon fruit is at about VND 55,000/kg (as compared to VND10,000 per kilo for white flesh dragon fruit) and has proved to generate more income and livelihood stability than rice;
- b. Dragon fruit production provides a quick return on investment as it begins to bear fruit less than one year after planting and reaches full production in between three to five years. In full production, the plants can have 4-6 fruiting cycles per year.

## 2. Support training and implementation of straw mushroom model in Phu Loc district

Target areas	2 communes in Phu Loc district
Beneficiaries	62 farming households for training and 18 project support
Implementing partners	Phu Loc SAFFE

## OBJECTIVES

Support development/promotion of adaptive, resilient and effective productive activities in agriculture, through:

- a. Teaching farmers how to recycle their own agricultural waste to improve livelihoods;
- b. Technical and material support to farming HHs.

## OUTPUTS

- a. 02 days of theoretical training on growing straw mushroom, 04 practical training sessions at the field and 02 sessions of study visits were organised for 62 interested farmers in two target communes;
- b. 18 arch roofs, 1,080 bags of straw mushroom spawns, 18 thermometers, 18 hygrometers, 36 rolls of pH testing papers, 36 wooden frames, 18 scales (5kg), 360 m2 of canvas, 18 suits of labour clothes, and 03 mushroom houses (for vulnerable households only) were procured and provided for 18 participating households.



## OUTCOMES

- a. Each household has produced 140-200 straw bales on average, accounting for 50-60% of the area of a mushroom arched-roof house. One arched-roof mushroom house can contain up to 320 straw bales;
- b. In terms of economic effectiveness, one mushroom house, containing 320 straw bales, generates two harvest periods, with a productivity of 70kg/mushroom house, and a gross profit of around 2 million VND;
- c. Farmers traditionally burn the straw and husk that remain after the rice harvest. This practice happens at least twice a year for two months at a time, releasing noxious smoke and greenhouse gases into the atmosphere. The straw mushroom production model has efficiently shown that local communities can use rice straw to cultivate mushrooms, thus recycling their own agricultural waste, generate income and ultimately improve livelihoods.

### 3. Cultivating white onion on sand model replication

Target areas	3 communes in Phu Vang district
Beneficiaries	33 farmers attended training (including 15 vulnerable households and 20 women) and 38 households received project support
Implementing partners	Phu Vang DARD

## OBJECTIVES

Support to diversify crops, generate income and a new livelihood option for local farmers, through:

- a. Improving local farmers' knowledge on techniques of cultivating white onion;
- b. Project support to allow households to cultivate new livelihood model.

## OUTPUTS

- a. 02 training classes attended by 33 farmers (including 20 women);
- b. 38 households have received project support for farming white onion on an area of 9,000 m2 in two target villages.

## OUTCOMES

- a. The target communes in this model are heavily affected by saltwater intrusion and droughts, which seriously affect farmers' lives due to increasing loss of agricultural produce. The successful implementation of the model by local farmers on an area of 9 000 m2 has contributed to an increase of local adaptive capacity to minimise risks of drought and saltwater intrusion, prevent and limit soil degradation and generate additional income for local farmers;
- b. The experiment has brought about outstanding results, as compared to other traditional crops, and Phu Vang district now continues to encourage local farmers to cultivate white onion, by reclaiming local sand areas and setting up intensive white onion cultivation areas, in order to green the sand areas for poverty reduction, income generation and increasing the economic value of the cultivation area.

#### 4. Replicate the model of Integrated Crop Management (ICM) rice cultivation in 3 target districts

Target areas	Total area of 8.9 ha in 21 communes in Quang Dien (9), Phu Vang (6) and Phu Loc (6)
Beneficiaries	1,190 farmers who are members of 31 co-Operatives in 21 target communes
Implementing partners	3 district and provincial (Sub-)Departments for Plant Protection



##### OBJECTIVES

Supported the introduction of an effective rice production model that increases productivity, farmers' income, is environmentally-friendly and sustainable, through:

- a. Capacity building in ICM rice cultivation and proper use of pesticides and herbicides;
- b. Project support in implementing the model in 2 crop seasons (Winter-Spring and Summer-Autumn, from Autumn 2014 to Autumn 2017).

##### OUTPUTS

- a. 33 training courses (7 sessions/training course) on ICM rice cultivation model and proper use of pesticides for 1190 participating farmers;
- b. Project support including rice variety (100%), Urea/Nitrogenous (60%), Phosphorate (50%) and Kali (50%) fertilisers, and lime (50%).

##### OUTCOMES

- a. The implementation of the ICM rice cultivation model led to a better understanding of and new skills and knowledge about the techniques of ICM rice cultivation and on how to use pesticides and fertilisers among 90% of participating households;
- b. To summarise:

District & crop seasons	Sampled site area (Ha)	Av. sowed seeds (kg/ha)	Av. N, P and K fertilisers (kg/ha)	Average Pesticides (Sprayings)	Average total expenditure (VND)	Average productivity (kg/ha)	Average profit (VND/kg)
Quang Dien (6 crop seasons)	4.1	103.3	667	4.6	16,049,133	5,952	16,611,200
Phu Vang (5 crop seasons)	3	100	798.9	5.4	21,233,200	6,420	18,667,380
Phu Loc (6 crop seasons)	2.2	100	833.4	2.5	21,620,417	6,057	12,566,069
3 target districts	9.3	101	833.3	4.1	19,634,250	6,143	15,948,216
<b>Compared to local crop</b>		<b>-17.7%</b>	<b>+2.2%</b>	<b>-38.8%</b>	<b>-10.6%</b>	<b>+4.7%</b>	<b>+25.2%</b>

- c. The successful implementation of the ICM model has demonstrated its ability to efficiently improve the use of resources, thanks to the reduced amount of sowed seeds (-17.64%) and pesticides (-38.8%). The use of fertilisers decreased in Quang Dien and Phu Loc communes;
- d. Farmers have experienced an increased productivity (+25.26% or an increase of 266 kg/Ha), generating an additional average profit of VND 3,277,395.167 per household;
- e. The farmers participating in the training are also communicators to other farmers in pest control;
- f. 20-30% of farmers outside the model have applied and follow the guidelines to prevent pests when pests occur.

## 5. Training in livestock disease preparedness at household-based farms

Target areas	9 target communes in Phu Loc district
Beneficiaries	173 direct beneficiaries, including communal extensionists, grassroots veterinarians and owners of household-based livestock farms in target communes
Implementing partners	Phu Loc SAHH

## OBJECTIVES

Strengthen livestock farming practices and contribute to improved animal health services, through:

- a. Provision of basic knowledge on livestock disease preparedness, diagnosis and treatment to veterinary services, key local government staff and core farmers;
- b. Enhancing biological techniques in livestock raising and technical assistance in the selection of good breeds.

## OUTPUTS

- a. 05 three-day training classes on veterinarian skills, livestock disease preparedness and biological animal husbandry techniques attended by 173 persons, including grassroots vets, farm owners and communal staff in charge of agriculture, fisheries and forestry in 9 target communes.

## OUTCOMES

- a. CPC SAFFE staff and core farmers have been equipped with knowledge on livestock farming techniques, how to select good breeds, have understood the various stages of livestock development for appropriate feeding and caretaking, and are able to disseminate knowledge among other farmers in target communes;
- b. The local veterinary services have been strengthened and are now better prepared in mitigating impacts of climate variability on animal health, including various infectious diseases, heat-related diseases and stress, extreme weather events and adaptation of animal production systems to new environments. To face these menaces, the need for strong and efficient Veterinary services, as well as experienced local authorities and community representatives is irrefutable.

### 6. Breeding Egyptian chicken for eggs

Target areas	Vinh An (Phu Vang) and Vinh Hung (Phu Loc) communes
Beneficiaries	22 farming households, including 4 vulnerable HHs
Implementing partners	TT Hue CAE

## OBJECTIVES

Supported the generation of an animal husbandry product of high quality and suitable to local consumers and thus improve livelihoods, through:

- a. Transfer of breed, knowledge and techniques of breeding Egyptian chicken for eggs on biological padding to local farmers;
- b. Replication in other communes following success of pilot intervention.

## OUTPUTS

- a. 03 technical training courses attended by 22 beneficiary households (including 3 women);
- b. 22 model households were provided with 2,100kg chicken feed, 22kg Balasa bio-product, 22 bags of Bio-Electrolyte, 66 bags of Antico, 176 bags of Phamequin;
- c. 1,100 Egyptian 22-day vaccinated chicks were delivered to 22 households (50 chicks/household).

## OUTCOMES

- The model of breeding Egyptian chicken for eggs has achieved good results, with a survival rate of 1,064/1,100. A 19-week chicken weights on average 1.3-1.4kg (hen) and 1.5-1.7 (rooster), and the chickens have started laying eggs in December 2017;
- The households have improved their techniques and skills in chicken disease preparedness and are interested in the model, since this particular species can be raised using the free-range method. It is also particularly suitable to be raised in coastal sand areas without water stagnation. With a yearly production of 180-220 eggs, it is more suited for egg production than the local chicken breed "Ri" (100-110 eggs/year);
- CAE will continue sending the technical staff to follow up and provide technical assistance to the model households to achieve a high efficiency, up until December 2018.

## 7. Hatching rice-field eel (*Monopterus albus*) seed model

Target areas	2 villages in Quang An (Quang Dien) and Vinh Ha (Phu Vang) communes
Beneficiaries	01 staff of TT Hue CAE and 07 farming households in 2 target villages
Implementing partners	TT Hue CAE

## OBJECTIVES

Supported development/promotion of adaptive, resilient and and effective productive model in agriculture, through:

- Experimenting production of ricefield eel (*Monopterus albus*) seed with semi-artificial reproduction tech techniques, with active participation of local farmers in target communes;
- Establishment of ricefield eel seed production in two areas of target communes.



## OUTPUTS

- 01 staff of TT-Hue provincial Centre for Agriculture, Forestry and Fishery Extension was financially supported to study a successful model practice in Tra Vinh province;
- 07 farmers involved in the pilot demonstration of the model were directly coached on techniques and skills of hatching/producing ricefield eel seed;
- Project support included 90kg of eel broodstock, 270kg of eel broodstock food, 216kg of eel fingerling food, 04 aerators;

- d. 02 directly benefiting households constructed 02 water treatment tanks (30m<sup>2</sup> width and capacity of 10m<sup>3</sup>) and the other 05 households constructed 05 fingerling nursing houses (roofed, 30m<sup>2</sup> width and 2.2m height);
- e. 02 concluding workshop to evaluate the pilot results were respectively organised in two target communes with attendance of 50 representatives from provincial, district and commune concerned agencies, and local farmers.

## OUTCOMES

- a. Rice field eel is native to sub-tropical and tropical Asia, and is considered a nutritious and tasty species, is also a value remedy in oriental medicine, while it is presumed a low-cost enterprise to farmers. The present model of ricefield eel seed production, experimented and established in two villages has successfully produced 2,506 seed eels (50-60 individuals/kg) of which 250 ricefield eel broodstocks were selected for continuous production of eel seeds and for replicated culture in other areas;
- b. It considered the first model of ricefield eel seed production that have successfully employed semi-artificial reproduction techniques in TT Hue.

## B. Support access to higher yield products through a value chain approach

### 1. Development of “Vinh Loc water melon” brand

Target areas	3 communes in Phu Loc
Beneficiaries	670 farming households
Implementing partners	Phu Loc DoIT

## OBJECTIVES

Support implementation of higher yield and saline-resistant varieties of crop, through:

- a. Development of the “Vinh Loc water melon” brand;
- b. Legal recognition and registration for certification as a collective brand of water melon products in target communes.

## OUTPUTS

- a. 01 survey on existing water melon farming households and selection of participating households carried out in 3 target communes;
- b. 01 logo for the collective brand of Vinh Loc water melons drafted and consulted with concerned farming households;
- c. 02 workshops to consult local farming households about the regulations on the use of the collective brand of Vinh Loc water melon;
- d. 01 workshop to agree and declare final regulations on the use of the collective brand.



## OUTCOMES

- a. Collective brand 'Vinh Loc water melon' with a logo and regulation on collective use has been registered for certification at the Intellectual Property Department;
- b. The price has increased from VND 3000/kg to 9000/kg since establishment of the brand;
- c. The establishment of copyright legislation on the Vinh Loc watermelon logo is expected to have significant long term sustainable impacts on both direct project beneficiaries and alternate stakeholders due to the brand awareness and continued ability to be price setters in the market.

## 2. Strengthening of VietGAP vegetable expansion and value chain

Target areas	2 villages in Quang Tho and 1 village in Quang Thanh communes, Quang Dien
Beneficiaries	Members of Quang Tho Cooperative No.2 and Kim Thanh Cooperative (Quang Thanh) and 228 farming households in Quang Thanh commune
Implementing partners	Quang Dien SAFFE, Quang Tho No.2 and Kim Thanh Cooperatives, Globalcert Certification Joint Stock Company, Quang Dien Division of Economics and Infrastructure



## OBJECTIVES

Support development of higher yield products of safe vegetables applying VietGAP standards into the cultivation of local varieties of vegetable in target communes, through:

- a. Provision of technical assistance to 02 cooperatives in expanding an additional 10ha of VietGAP Centella and 10ha of 04 local varieties of vegetables cultivation areas;
- b. Further strengthening of Centella vegetable products by introducing them at trade fairs and advertise using different media;
- c. Certification of Centella and 04 local vegetable varieties as in compliance with VietGAP standards.

## OUTPUTS

- a. 01 three-day technical training course on VietGAP Centella vegetable cultivation organised for 50 members of Quang Tho Cooperative No.2 by Globalcert Certification Joint Stock Company;
- b. 10,000 brochures have been printed and label of fresh Centella printed on 130 000 PE bags; 30-second clip and re-broadcasting for 24 times through the Danang-based channel VTV 8, targeting people from Danang, Central and Highland provinces;

- c. Centella products were presented at the 2016 Festival Hue International Trade Fair;
- d. 07 training courses on VietGAP vegetable production, including 04 local varieties of Brassica juncea, Lactuca-sativa L. var. capitata L, spicy vegetables and Basella alba L, and plan protection were organised for staff of Kim Thanh Cooperative (01 course), who supervised and assessed the vegetable production, and 228 farmers (06 courses);
- e. 03 batches of field supervision and visits to participating farming households for VietGAP certification procedures for vegetable production.

## OUTCOMES

- a. 278 farmers know how to cultivate safe vegetables, out of which 50 farmers were provided with VietGAP Centella vegetable cultivation training certificates (50 farmers) and 228 farmers were issued certificates of VietGAP safe vegetable production, by Globalcert Certification Joint Stock Company;
- b. An additional 20 ha in 03 target villages now grow Centella vegetables (10 ha) and 04 varieties of vegetables (10 ha) and both have been certified as areas of cultivation in compliance with VietGAP standards by Globalcert Certification Joint Stock Company;
- c. The entity producing, processing and distributing various products of Centella (incl. fresh vegetable, normal Centella tea, filter-bag Centella tea) was established in early 2014, and the Centella tea production line was put into operation under Quang Tho No.2 Cooperative in October 2014;
- d. The consumption market of the Centella products, including Centella tea produced by the cooperative, has significantly increased, new jobs and income have been generated for local labourers and Centella cultivation areas have expanded.

## C. Support to farmers and CBOs to have better opportunities and access to productive resources

Target areas	08 communes in Quang Dien (03), Phu Vang (02) and Phu Loc (03) districts
Beneficiaries	469 borrowers in 8 target communes, including members of 16 women Savings & Credit Groups (SCGs) and 07 FAs
Implementing partners	3 district WUs

## OBJECTIVES

Support in strengthening livelihoods of local people, by enabling easier access to credit for investment in productive and business activities, to help enhance commune and



village WU members' capacity for management of credit fund resources in target communes, through:

- a. Enhanced commune and village WU members' capacity for management of credit fund resources in target communes;
- b. Establishment of savings & credit groups (SCGs) and ensure that SCG members efficiently manage and use the fund following the intended purpose;
- c. Equipping with knowledge and techniques of animal husbandry and aquaculture for effective and sustainable use of fund.

## **OUTPUTS**

- a. 25 training courses on the Fund Regulation on use and management of seed capital and revolving fund (25 courses) were organised for 87 members and managers of DFMBs, CFMBs and SCGs (03 courses) and 745 members of village WUs (22 courses) held by TT Hue Provincial WU;
- b. Establishment of 08 communal fund management boards in target communes;
- c. Establishment of 23 SCGs (805 members), including 16 women SCGs and 7 FA SCGs;
- d. 04 three-day technical training classes on breeding chicken and pigs to 120 trainees and 04 two-day classes on farming fish in cages to 114 trainees of 8 savings-credit groups in 03 Phu Loc target communes;
- e. As of March 31st 2018, the Fund has implemented 24 batches of loan disbursement providing loans for 469 SCG members with a maximum loan size of VND 10 million.

## **OUTCOMES**

- a. In general, the DFMBs, with the assistance of CFMBs, in three districts have well implemented and managed the Fund operation within their assigned functions;
- b. Given the initial seed capital, the DFMBs in three districts well managed to revolve the repayment funds to grant credit loans to a total of 469 borrowers (360 women and 109 FA members);
- c. The Fund has met many borrowers needs and interest in starting up or expanding their livelihood/business activities, Including aquaculture, cultivation and livestock raising. Local people, and especially 'poor' and 'near-poor' households as well as other vulnerable groups such as women, have had access to credit which has helped them to diversify their income sources, hence contributing to increase their resilience to the impacts of climate change.



## TASK 10

### SUPPORT PEOPLE IN TARGET AREAS, ESPECIALLY YOUNG AND MOST VULNERABLE PEOPLE, TO BE PREPARED FOR EMPLOYMENT IN THE SALARIED LABOUR MARKET OR SELF-EMPLOYMENT

Outcome Indicator	Baseline	Progress		End of project (Dec'17)	
	Jun'14	Dec'15	Dec'16	Target	Results
27. By end of the project, at least 20% of unemployed labourers, who received vocational training through project support earn on average the minimum salary for labourers as per Decree 182/2013 of the GOV from off-farm economic activities	N/A	51.6%	84%	20%	88.3%
28. By end of the project, no. of person/nights from tourism homestays in target communes has increased by 20%.	2,683	3,051	2,144	3,220	2,172

29. By end of the project, the percentage of SME-owned HHS that increased their annual income by at least 20% through project-supported improved operations or services is at least 10%.	N/A	31.8%	29.6%	10%	49.2%
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## A. Improved supply and quality of relevant market-driven vocational trainings

### 1. Vocational training in industrial sewing, welding, electricity and engine repair

Target areas	3 target districts
Beneficiaries	Info sessions: 3 931 pupils of Grade 9 and 2,759 parents of Grade 9 pupils Vocational training: 646 rural unemployed labourers and VTS graduates, including 586 female
Implementing partners	Phu Loc and Quang Dien District Secondary VTS, Phu Vang DOLISA, Phu Vang District VTC and Hue College of Industry



#### OBJECTIVES

Support to increase local people's awareness of and response to vocational training opportunities as well as in the facilitation for seeking jobs of higher income, through:

- Raising awareness by providing pupils and parents with updated information and counselling on local vocational training opportunities and resources in target communes;
- Providing trainees with basic knowledge and technical skills in different fields, including industrial sewing, welding, electricity and engine repair.

#### OUTPUTS

- 54 half-day counselling sessions were organised for 3,931 Grade 9 pupils and 2,759 parents of 11 secondary-schools in Quang Dien; VTS enrolment information printed and distributed at schools and public places as well as broadcasted on the district radio for two months and twice on TRT television;
- 26 vocational training courses on industrial sewing (22), welding (2), electricity (2) and basic engine repair (2) for 597 rural unemployed labourers (industrial sewing and engine repair) and 49 male graduates from Quang Dien VTS (welding and electricity).

## OUTCOMES

- a. Parents and pupils of Grade 9 at 11 target secondary schools had better knowledge and understanding of available opportunities and resources for vocational training opportunities, as well as its benefits;
- b. Over 90% of trainees had completed their training with satisfactory results and have applied for jobs;
- c. Many young people graduating from project supported vocational trainings were able to find a well-paid job in the textile and garment industry or to provide self-employment services such as outsourced industrial sewing and engine repair;

## 2. Vocational training in professional selling and management skills

Target areas	Quang Dien and Phu Loc districts
Beneficiaries	152 small-scale traders, owners, staff and managers of tourism service providers in Quang Dien (40) and Phu Loc (112), 36 SME owners; 155 members of agriculture cooperatives and CPC staff; 118 members of management committees and head of production groups under 17 cooperatives in 9 target communes in Phu Loc
Implementing partners	Quang Dien DIT, Phu Loc DARD and Division of Infrastructure and Economics, and senior training experts from ILO and VETI

## OBJECTIVES

Support management capacity building for local small scale traders, as well as local SMEs and cooperatives, through:

- a. Strengthening of professional selling and marketing skills, as well as management and execution capacity for development of SMEs and other businesses/services in various sectors, including tourism, agriculture, etc.

## OUTPUTS

- a. 04 two-day vocational training courses on professional selling and management skills for 152 small-scale traders, owners, staff and managers of tourism service providers, conducted by VETI training consultants;
- b. 07 four-day vocational training course on management and execution skills for 36 local SME owners (01 training) and 155 agriculture cooperative members (06 trainings);
- c. 03 two day training courses on markets and marketing skills for 118 members of local agriculture cooperatives in Phu Loc district.

## OUTCOMES

- a. 100% of small-scale traders and SME owners had completed their trainings with satisfactory results and were issued training graduate certificates by VETI that will help to develop their sales and enterprise management;
- b. Via a preliminary assessment, 12 out of 17 Management Committees of the Cooperatives (70.6%) have been able to (i) conduct the market survey and develop their production plans based on the market demand, (ii) develop marketing strategies of the cooperatives and (iii) build and develop the brand name to the cooperatives.



## B. Support an enabling environment for off-farm production, small business development, and SMEs

### 1. Support to organize study tours

Target areas	Yangon and Inle Lake (Myanmar) Dien Ban and Dong Giang districts, Quang Nam province (Vietnam)
Beneficiaries	Myanmar study tour include 13 participants and the Quang Nam study tours counted 42 participants (over two years), including: TAO staff, DPI staff (incl. PMB), Vice Director of the Provincial Department of Culture, Sport and Tourism, district DOCI staff, PPC staff, 03 district DOCI staff, FA representatives, homestay service providers, conical hat making household representatives and cooperative staff
Implementing partners	VIE/033 PMB and TAO (Myanmar), Hue Cua Ta Joint-Stock Company (Quang Nam)

### OBJECTIVES

Enable VIE/033 involved parties to experience several successful cases of community-based ecotourism in Myanmar and Quang Nam Province (Vietnam), through:

- Observation and experience of diversified tourism activities on offer, with special attention to community-based and eco initiatives;
- Provision to households in Loc Binh, Phu An and Quang Ngan with knowledge and experiences from CBET models in order to improve local tourism services as well as professionalism in providing CBET services in Tam Giang– Cau Hai lagoon;
- Mechanism of sharing benefits and experiences among tourism enterprises, local community and local authority in operating CBET activities

### OUTPUTS

- 01 seven-day study tour to Yangon City and Inle Lake, Myanmar organised for 13 participants;
- 02 two-day study tours to Quang Nam province organised for 42 participants (24 in 2016 and 18 in 2017).

### OUTCOMES

- Participants have observed and experienced the diversity of tourism development in a similar environment to Tam Giang Lagoon, have a better understanding of the nature and process of community-based eco-tourism development, and will be able to apply successes of experienced models in the development of CBET in Tam Giang – Cau Hai lagoon.



## 2. Support the development of CBET in 4 target communes

Target areas	Quang Ngan and Quang Loi (Quang Dien district), Phu An (Phu Vang district) and Loc Binh (Phu Loc district)
Beneficiaries	372 households in target villages, including 13 homestay providers and 4 boatmen, as well as all local people and site visitors in target communes, in general
Implementing partners	3 district DoCI, Quang Dien DIB



### OBJECTIVES

Contribute to the creation of new jobs and an increased income for people residing around Tam Giang-Cau Ha lagoon by providing support in the establishment of community-based ecotourism services, through:

- Improving quality of homestay service providers as well as local restaurants in providing good quality and appropriate food & beverage services, and improve presentation of their dishes;
- Capacity building on cooperative law and setting up a tourism business for local people, for their effective development and management of tourism business operations;
- Raising awareness on the protection of environment and natural resources through community-based ecotourism services for local people in coastal and lagoon areas.

### OUTPUTS

- 01 general master plan on CBET sites in Loc Binh, as well as 03 regulations on the operation of CBET in Loc Binh, Phu An and Quang Ngan developed and enacted;
- Support in establishment of Tan My cooperative group of touristic services with 15 members, approved by Quang Ngan CPC, and strengthening of Loc Binh 1 Cooperative;
- 03 awareness-raising trainings on community-based ecotourism attended by 134 local people, including homestay providers and village executive board members in Phu An and Quang Ngan;
- 01 training on fruit paring and dish decoration to 23 trainees in Loc Binh, including 13 women, one near-poor household and other vulnerable households;
- 02 three-day training classes on bar tendering skills for 25 participants, including homestay service providers and local restaurant staff in Phu An and Loc Binh communes;
- 02 twelve-day training courses on cookery skills and food & beverage services for 35 participants in Phu An and Quang Ngan communes including homestay service household representatives, people providing party services,

- h. 01 training on Cooperative Law for 45 representatives of households providing CBET services, and members of Loc Binh Cooperative 1;
- i. 01 public latrine and 04 fishery observation tents constructed in the southern bank of Tam Giang lagoon in Quang Loi commune.

## OUTCOMES

- a. 372 households in Loc Binh, Phu An and Quang Ngan have benefited from CBET activities and have seen changes and improvements in their lives;
- b. 95% cooking trainees have thoroughly grasped basics cookery and bar tendering skills and knowledge in order to provide good quality cuisine service and prepare seasonal drinks/beverages for visitors;
- c. Fruit paring trainees are now qualified to work for or open their own restaurants to provide cuisine services to tourists;
- d. 100% trainees have grasped basic knowledge and skills on community-based ecotourism, how to meet requirements and criteria of making the business of CBET for self-employment and income generation, as well as on the Cooperative Law, to effectively manage CBET activities.



## C. Establishment of a grants programme in support of (i) innovation and (ii) most vulnerable people

Target areas	Quang Dien district
Beneficiaries	All members of Quang Dien BA and their family members
Implementing partners	Quang Dien BA

### OBJECTIVES

Support the production development and capacity building to Quang Dien BA, through:

- Improved knowledge on animal husbandry and livestock disease preparedness for BA members and their families, helping them to raise livestock by themselves for income generation and living condition improvement;
- Vocational training on incense-making to BA members to help produce and generate additional income;
- Capacity building in braille to BA members to improve the education level and help them to better integrate into their communities and eliminate their low self-esteem;
- Improving conditions of working, production and meetings of the BA.

### OUTPUTS

- 01 six-day training course to 30 members of Quang Dien BA and their family members on animal husbandry technique and cattle/ poultry disease prevention;
- 01 22-day training course on incense-making for 20 members of Quang Dien BA;
- 01 66-day training class on braille has been completed with the participation of 20 illiterate members of BA;
- Construction of a workshop, administration office, drying yard, gate and fence, in accordance with the approved design, and provision of a set of office equipment, including 01 computer, 01 printer, 01 set of computer desk and chair.

### OUTCOMES

- 90% trainees have understood and grasped the techniques and skills for application into animal husbandry for income generation and life improvement;



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- b.** 08/20 incense-making trainees have registered for working at the BA; 06/20 have outsourced making incense at home, thus have had new jobs and are able to generate income;
  - c.** 20 Braille trainees have been able to touch, read and write Braille texts, bringing happiness and confidence. All trainees have asked for books and newspapers in Braille and pens to bring home for further practice and improving their skills;
  - d.** In general, all trainings and new construction/equipment have helped the blind people to update information, improve their knowledge, eliminate their low self-esteem and become more optimistic for community inclusion.





SECTION C

**PROJECT INTERVENTIONS & RESULTS**  
**(II) INFRASTRUCTURE SUB-PROJECTS**

# 1. INTRODUCTION

Overall, about 45% of the project budget for technical support was earmarked for small-scale INFRA works in support of strengthening and/or protecting people's livelihoods against the various impacts of climate change -- such as for example increasingly devastating storms, more frequent floods, increasing beach/dune/river erosion, further salinisation of the soil and the lagoon water, or changing ecosystems.

INFRA sub-projects that were considered relevant in that context were categorised as follows:

Type of sub-project		# SPs
1	River dykes and embankments - to protect productive land	16
2	Bridges and sluices -- e.g. to prevent further salinisation of paddy fields	3
3	Pump stations	4
4	Irrigation and drainage channels	25
5	Kindergarten classrooms with shelter function - e.g. to enable women to engage in productive activities	7
6	Boat shelters - to protect fishing folk from damage to their main economic asset during typhoons	4
7	Access road to productive areas - usually with dyke or evacuation function	17
8	Water reservoirs	2
Total		78

INFRA sub-projects were proposed jointly by the community and local authority during annual project planning workshops, and following from the 5-year Socio-Economic Development Plans (LPPP output) and CVCA reports that were produced by communities and local authorities at the start of the project. INFRA sub-projects proposed during these annual planning sessions were subsequently assessed against a set of social and economic criteria, to establish which proposals would add most value in terms of effectively strengthening or protecting people's livelihoods (see below).

In all, 78 INFRA sub-projects were selected and implemented over the project's four-year timeframe, around 20 every year. From year one, these sub-projects were implemented through delegation, whereby the district partner agencies were responsible for budget and technical management, supported and monitored by the TA Office and provincial PMB staff.

## 2. HOW INFRA SUB-PROJECTS WERE SELECTED

Selection of INFRA sub-projects went through three stages: (1) local pre-selection and proposal; (2) field observation and assessment; and (3) final selection.

### **2.1 Local pre-selection of proposed INFRA sub-projects**

Sub-projects were proposed at the grassroots, based on village and commune SEDPs and CVCA reports. A pre-selection (long-list) of sub-projects was presented by each district partner to project management for review and assessment. Each proposal in the pre-selection included (i) a narrative part, with an analysis of the problem and explanation of how the intervention would help resolve the problem, (ii) a data report as per clear criteria; and (iii) a conclusion and suggestions based on the narrative and data report.

### **2.2 Field observation and assessment of proposed INFRA sub-projects**

In collaboration with district partners, project management including LuxDev's Technical Adviser for INFRA (civil engineer) carried out field observations and assessments of each proposed sub-project, with participation of commune authorities and community leaders. This procedure, based on calculations and GIS maps, and backed up by pictures, was primarily to assess the practical situation and technical aspects as well as feasibility of each proposed sub-project. A field assessment report for each proposed intervention was prepared by the TA with the ranking of proposed sub-projects based on their scoring. Subsequently, this document was presented, assessed and discussed in detail in a meeting with relevant partners, and gave a clear picture of the cost-benefit analysis of each proposed intervention. The final agreed selection was included in the project annual work plan for that year.

### **2.3 Ranking, Scoring and Score Assessment of proposed INFRA sub-projects**

Based on a set of agreed selection criteria and various primary and secondary data, TAO and relevant partners cooperated in the assessment, shortlisting and scoring of proposed interventions.

#### ***a. Shortlisting of proposed INFRA sub-projects***

This procedure was used to come to a shortlist of proposed sub-projects, based on available secondary data as well as primary data in LPPP reports. Villages that proposed INFRA works were first ranked on the basis of their overall poverty and vulnerability status -- based on government statistics of numbers of poor and near poor HHs in the village and the level of vulnerability and urgency -- with poorest and most vulnerable villages getting highest priority. Considering their special nature and preferential focus in the project, resettlement areas were always included in this list by default.

The rule of thumb was to have 30% of the infrastructure budget per year reserved for sub-projects located in villages listed in the top quintile of the poverty and vulnerability list. Villages in such position were only entitled to receive such support once during the project life cycle.



### ***b. Scoring to assess proposed INFRA sub-projects***

The scoring to assess proposed sub-projects was based on the set of criteria for infrastructure selection developed by the project and endorsed by stakeholders and project management. An overview of these criteria is given below:

Focus Area	Criteria		Scoring	Category/ Range	Tool for data collection
<b>Development (livelihoods) (50%)</b>	No. of beneficiaries (household)	Ratio of benefited household/ investment (per 100 mil VND)	>=25hhs: 5points < 25hhs: calculated by ratio correlation	Max: 5 points	LPPP process Statistical data available Field observations
	Create the added value in livelihood activities	No. of vulnerable house- hold (poor/near poor/ poor women/disabled/ boat people, etc) (per 100 mil VND)	>=5 hhs: 5 points <5hhs: calculated by ratio correlation	Max: 5 points	LPPP process Statistical data available Field observa- tions
		Support income gener- ation Crop/Aquaculture/ etc. (per 100 mil VND)	>= 2ha: 5 points < 2ha: calculated by ratio correlation	Max: 5 points	LPPP process / No. ha of crops/ Aquaculture
		Support income liveli- hood activities (per 100 mil VND)	>= 25hhs: 5 points < 25hhs: calculated by ratio correlation		No. hhs in New/initiative live- lihood activities
<b>Protection (life, assets, crops (40%)</b>	Life, Assets, Crops	No.of beneficiaries protected during floods/ storms/etc (per 100 mil VND)	>= 5 persons: 5 points < 5 persons:cal- culated by ratio correlation	Max: 4 points	LPPP process Statistical data available Field observa- tions
		Assets/physical facilities	Yes: 2 points No: 0 points	Max: 2 points	LPPP process Statistical data available Field observa- tions
		Protected crops/aqua- culture livelihood activi- ties (per 100 mil VND)	>= 2ha: 4points < 2ha: calculated by ratio correlation	Max: 4 points	No. ha of crops/ aquaculture/new initiative livelihood activities
		Protect other livelihood activities (per 100 mil VND)	>=25hhs: 4 points <25 hhs: calculated by ratio correlation		

	Environment	Reduce pollution (waste water/solid waste/salinity)	Yes: 2 points No: 0 points	Max: 2 points	LPPP process Field observations
	Risk Assessment	Possible negative impact (land loss, etc)  Other negative impact caused by proposed project	Land loss: >=200m2: -2 points <200m2: calculated by ratio correlation  Average negative impact: - 1 point High negative impact: -2 points	Max: -2 points	LPPP process Field observations
<b>Local responsibility (10%)</b>	Local responsibility	OM&M regulation in place	Yes: 1 point No: 0 points	Max: 1 point	LPPP process Local stakeholders (village, commune, district)
	Local contribution	Willing and committed to contribute	Yes: 1 point No: 0 points	Max: 1 point	LPPP process Local stakeholders
	Alignment with existing local plans	Proposed project does not conflict with existing local plans; after revision of NRDP+SEDP must be in line with local plans	Mentioned in NRDP: 1 points. Not mentioned in NRDP: 0 points.	Max: 1 point	Local stakeholders

Note:

- Assigned percentage weight: 50% for livelihood development; 40% for protection (life, assets, crops); and 10% for local responsibility;
- Method for ratio correlation calculated: Example :  $\geq 25$  hhs: 5 points;  $< 25$  hhs: estimated by the formula:  $X (\# \text{ points}) = \# \text{ hhs} \times 5/25$
- Minimum score for physical infrastructure to be selected: 12 points

### **c. Overall score assessment and final selection**

Proposed sub-projects not having the minimum required 12 point score (considered not relevant enough) would drop from the list. Those that scored 12 points or more were ranked as per their score, with the highest ranked selected first. Highest scoring proposals would be selected so long as funds for that year would allow, resulting in usually 6 to 7 sub-projects per district per year.

### 3. INFRA IMPLEMENTATION AND SUPERVISION

At the start of the project, tailor-made Financing Agreements (FA) were designed to delegate the authority for technical implementation and budget management of sub-projects to the counterpart agencies at district level. In the context of the Paris Declaration on Aid Effectiveness and its national translation in the Hanoi Core Statement, and considering the Government of Vietnam's experience with implementation of infrastructure projects as well as a strong legal basis with strict requirements for procurement and supervision, LuxDev agreed with a 100% advance disbursement to the implementing partners. In addition to the relevant national legislation, the Financing Agreements further spelled out the procedures for procurement and LuxDev's role in supervision and endorsement at all critical steps in the procurement and construction process.

From 2015 onwards, the project shifted from project-specific FAs to LuxDev's new Delegation Agreement for Funds and Implementation (DAFI), which was a format newly designed at the corporate level to be used and applied in LuxDev projects across the board. From that moment, not only INFRA sub-projects but also many software activities were implemented through DAFIs.

### 4. RESULTS FROM INFRA SUB-PROJECTS

The project monitored INFRA interventions and their impact through 5 indicators (12-16) in the M&E Matrix. These indicators give a picture of implementation efficiency, and of the substantial positive impact of these facilities on the lives and livelihoods of people in target areas.

In the period 2013 to 2017, the project selected 78 sub-projects for implementation through delegation. Indicator 12 shows that 84% of these sub-projects were completed on time. Most of those that faced delays did so due to adverse weather events, primarily major floods halting all construction works, sometimes for several months. With the target set at 90%, this indicator was one of only four out of the total 28 in the M&E Matrix that remained below target.

The quality of project INFRA received praise from technicians and beneficiaries alike. A recent assessment of all sub-projects completed since 2015 found that facilities were also resilient, as only three facilities needed minor maintenance and two needed some more serious repair following the major flood in the 4th quarter of 2017. That resilience is largely a reflection of quality, but also of effective O&M systems that were put in place. Indicator 14 shows that as of end 2017 98.6% of all sub-projects had sufficient OM&M measures in place, measured through a composite indicator of 12 variables. This exceeded the initial target of 90%.

Contractors that in the process did not comply with procedures or were too slow in implementation were formally black-listed, in mutual agreement between TAO and the government counterpart, and not considered for future bidding.

Indicator 16 shows that as of April 2018, 29,992 households directly benefited from one or more sub-projects, and Indicator 15 shows that 5,470 hectares of productive land in target communes is now better protected against the impacts of climate change. Furthermore, many of these INFRA sub-projects also brought indirect benefits, for example in savings in operation & maintenance costs, or from improved transportation.

Local beneficiaries demonstrated a strong commitment and ownership toward project INFRA works. They actively participated in the whole process -- from the initial needs identification and proposal of INFRA interventions, to planning and financial contributions, to supervision during the construction phase and maintenance tasks after handover. Every sub-project required a financial stake from the beneficiaries, usually a standard 2% of the total cost. The target of Indicator 13 was that by end of the project actual cash payments to INFRA works would be 90% of what had been committed. End 2017, data indicated that more than 97% of committed contributions had de facto been paid, for a total amount of around 110,000 EUR in cash.

Out of the total budget of 4.2 million EUR for INFRA (equivalent to 108.2 billion VND), the project invested 30% to the highest quintile of poor and vulnerable villages.



## 5. LIST OF COMPLETED INFRA SUB-PROJECTS AND THEIR IMPACT, PER CATEGORY

### Category 1: River dykes and embankments

No	INFRA sub-projects	Completion time	Achieved outputs	Achieved outcomes
1	Bau Duoc dyke, Loc An, Phu Loc district	22/05/2015	921m of dyke base, crest width of 3m, average height of 2m; two-sided slope bank protection of concrete slabs; 03 drainage culverts; 450 m of access road.	Protects 250 ha of two-crop rice fields; Reduction of VND 210 million annual cost for embankment repair and reinforcement after floods; Reduced disaster risk for 116 HHs in Chau Thanh village; 1,700 HHs benefit in total.
2	Protection of Cau Hai river embankment, Loc Tri, Phu Loc district	23/01/2015	372 m of rock embankment protection along Cau Hai river; 03 river wharfs of 3m width and drainage ditches along the embankment.	Protects 360m of Cau Hai river bank and concrete road along river against erosion in the rainy season and floods; 244 HHs benefit.
3	Renovation of Duoi Dam embankment, Loc Dien, Phu Loc district	10/02/2018	684 m of embankment for irrigation upgraded	Protects and improved agriculture production for 30 ha of paddy fields that benefit 290 farming HHs
4	Protection of embankment combining in-field road of Hoi Moi 3 paddy rice field, Phu Xuan, Phu Vang district	24/10/2014	836 m of concrete road (including 258m of combined dyke ), road base of 4.0m, road surface of 2.5m; 03 round culverts	Protects 50 ha of rice fields against the effects of annual floods; Improved transportation conditions for agricultural production; 140 HHs benefit.

			D75; 05 round culverts D300; 01 turnout.	
5	Vinh Xuan dyke, Mai Vinh village, Vinh Xuan, Phu Vang district	11/09/2015	104 m of dyke upgraded & expanded, and rock bank protection; 01 sluice B=2m with regulatory gate; 01 round culvert D800.	Protects 30ha of rice fields against saltwater intrusion; Improved transportation for agricultural and aquaculture production for 215 HHs
6	Saltwater separation dyke between shrimp ponds and rice fields, Ha Bac village, Vinh Phu, Phu Vang district	28/07/2015	374.6m of saltwater separation dyke built with compacted red soil; 01 round sewer D= 0.75m with a regulatory gate.	Protects 7.3 ha of paddy against saltwater intrusion from shrimp ponds; Protects 15.2 ha of shrimp ponds from being contaminated by pesticide intrusion from paddy fields; Improved transportation conditions and protection for agricultural & aquaculture production of 120 HHs, including 41 resettled HHs.
7	Slope protection of inter-village road An Truyen - Truyen Nam, Phu An, Phu Vang district	20/04/2016	New construction of 271m of rock slope protection; Dredging 01 440m drainage channel	Protected road slope; Improved water supply & drainage and protected agricultural production in 19 ha of 200 farming HHs; Reduced environment pollution caused by rubbish accumulated in the drainage canal.
8	Protection dyke of Duong Mong village, Phu My, Phu Vang district	19/09/2016	Upgrading 884m of dyke, dyke peak width of 2m ; and 01 sluice gate with dimension of 2,0m x 2,0m	Improved transportation for agriculture production of 400 farming HHs; Protects 95 ha of rice fields from flooding
9	Bau O river dyke combined with in-field road, Vinh Ha, Phu Vang district	28/12/2016	Upgrading 1755m of dyke, dyke peak width 4m ; New construction of 01 round culvert D600 & 01 round culvert D400.	Protects agriculture production of 435 ha of rice fields; Improved in-field transportation conditions for 445 farming HHs.
10	Renovation of Ruong Can dyke combined with rural road, Vinh Thai, Phu Vang district	08/11/2017	474m of dyke upgraded with dyke peak width of 4m; 01 round culvert D200 UPVC; 01 round culvert D300 UPVC; 02 sluice gates, dimension of 2.5x2.7m and 1.0x1.0m	Protects 262 ha of paddy; Improved transportation for rice production for 713 farming HHs/
11	Protection of Sia River embankment & combined	09/12/2014	Constructed 265m of dyke and embankment	Improved protection of 85 ha of rice fields and 05 ha of aquaculture against floods



	dyke, Sia town, Quang Dien district		slope protection; 01 RC drainage round culvert $\Phi 1000\text{mm}$ , with gate valve V1.	during rainy season, and early April & May floods; Improved transportation conditions for agricultural and aquaculture production of 650 farming HHs.
12	Dyke combined with in-field road Bau Tu - Phu Thanh, Kim Thanh, Quang Thanh, Quang Dien district	12/02/2018	880m of dyke combining in-field road function and upgrade of 02 slab culverts and 02 new pipe culverts $\Phi 400\text{m}$ constructed	Protects 120 ha of paddy and improved transportation for rice production for 500 farming HHs
13	Slope protection of Xom Tre drainage canal, Sia town, Quang Dien district	25/09/2017	Dredged 370m of drainage canal; Reinforced 300m of drainage canal bank slope with rock (31m) and concrete slabs (269m); constructed 02 new boat RC wharfs- $B=4.0\text{m}$ ; Upgraded 327m of infield - road, 5m in width;	Protects 50 ha of paddy from inundation through improved drainage systems. 25 farming HHs benefit.
14	Upgrading Kanh Moi dyke, Quang Thai, Quang Dien district	21/10/2017	748m of dyke upgraded with 02 concrete slabs for slope protection and concrete dyke surface M200, 3m in width and 16cm in thickness; repaired drainage sluice gate with 2m in width at K0+467.1; 03 new round culverts $\Phi 600$ at K0+212, K0+217 & K0+495.3 constructed	Protects agriculture production for 28 ha of paddy and improved living conditions and transportation for 175 HHs
15	Retaining wall of Mieu Van canal, Loc Binh commune, Phu Loc district	08/02/2018	334m of rock retaining wall; 01 pipe culvert $\Phi 80$ ; 01 spillway $B=3\text{m}$ and combining drainage function with dimension of $2 \times 1.0 \times 1.1\text{m}$	Supports 12 ha of agricultural land, benefiting 80 HHs

16	Diem Tu dyke, Vinh Thai commune, Phu Vang district	30/04/2018	Upgrading of 442m of dyke, slope protected with concrete slabs; new construction of 02 UPVC pipe culverts and 1 double culvert with dimension of 2x1000	160 agriculture HHs and 40 ha of paddy benefit
Before			After	
				

## Category 2: Bridges and sluices - e.g. to prevent further salinisation of paddy fields

No	INFRA sub-projects	Completion time	Achieved outputs	Achieved outcomes
1	Ong Yen bridge & access road, Vinh Ha, Phu Vang district	03/10/2014	01 reinforced concrete bridge with 12 m X 3.5 m; 01 concrete access road of 256 m with 4m wide base and 3m wide surface; 02 square culverts 0.5mX0.5m	Reduced traffic inconvenience and hardship for local people; Helped local farmers reduce an average of VND 70,000 per trip on transportation costs of agricultural materials and rice; 1,100 HHs from 03 villages benefited.
2	Mu U sluice, Vinh Hai, Phu Loc district	10/03/2014	01 reinforced concrete sluice gate with dimension of 2x4m; a concrete access road with a length of 290m and width of 3m.	Protects 65 ha of paddy fields against salt water intrusion; Improved local transportation conditions; 680 HHs benefit in Vinh Hai and Vinh Hien communes.



3	Nho bridge in Nghi Giang village, Vinh Giang, Phu Loc district	15/12/2016	49m of access road, 5m of road base, 3m of concrete road surface, 18cm in thickness, RC bridge with dimension of 6m x 16m	Improved transportation and infrastructure conditions for 716 HHs of Nghi Giang village.
Before			After	
				

### Category 3: Pump stations

No	INFRA sub-projects	Completion time	Achieved outputs	Achieved outcomes
1	Thanh Trung-Ruong Cung irrigation pump station, Kim Doi, Quang Thanh, Quang Dien district	11/11/2014	01 two-storey pump station with 03 pump machines HL600-5-15KW; a RC canal of 303,2m length; 01 RC culvert with dimension 90x90cm under the road; 01 RC step-based weir; 01 RC culvert under the canal; 01 transformer station 100KVA.	Improved irrigation for 40 ha of rice fields and supply water to another 40 ha when concrete irrigation canal is extended; Helped reduce irrigation costs of rice production; 240 HHs benefit.
2	O Bien drainage pump station, Trung Lang village, Quang Thai,	11/01/2016	01 two-storey drainage pump station 5.0mx-6.9m; RC driver tank	Protects 50 ha of two-crop rice field from inundation and improved agricultural production for 420 farming HHs.

	Quang Dien district		4.5x3.20m; RC deliver tank 4.7mx3.5m; 01 pump machine HL1400-5 33KW & 01 pump machine HL700-7 22KW; 1815m of channel dredged; 08 round drainage culverts D400; 01 control sluice gate B=1m; 03 control sluice gates B=2m; 01 transformer station 100KVA – 22/0.4KV; 1033m of low voltage power line 0.4KV.	
3	Drainage of mini-pump stations of Lanh Thuy Agriculture Cooperative, Quang Ngan, Quang Dien district	09/12/2017	Constructed 05 electrical mini drainage pump stations with capacity of 290m <sup>3</sup> /ha and engine 7.5KW; Installed 2,531m of 0.4KV lower tender power line.	Protects 38 ha of paddy fields from inundation and improved rice production of 380 farming HHHs.
4	Phuong 6 irrigation pump station, Village 5, Vinh Ha, Phu Vang district	24/04/2015	01 pump station house with 02 pump machines of HT700-2.5 motor 11 KW; 847m of reinforced concrete irrigation canal.	Reduced cost of agricultural production; increased rice yield through improved irrigation for 48 ha of two-crop rice fields; 420 beneficiary HHHs.



#### Category 4: Irrigation and drainage canals

No	INFRA sub-projects	Completion time	Achieved outputs	Achieved outcomes
1	Dong Dan Bau Vet drainage canals, Vinh Hien, Phu Loc district	31/10/2014	03 drainage canals with a total length of 1,104m; protecting concrete slabs, width of bottom: 1m; slope $m = 1,5$ ; $H = 1m$ .	Protects 50 ha of crops from inundation during rainy season; 570 HHS benefit.
2	Renovation of Hau Thac drainage canal, Vinh Giang, Phu Loc district	10/10/2015	Dredging 1,287.6m of drainage canal and combining 02 embankments along the canal for in-field dyke and road; 02 slab bridges of 4m width -1 round culvert D80.	Protects 25 ha of rice from inundation; 250 HHS of Nam Truong village benefit from improved flood drainage system and agriculture production
3	Irrigation canal of team 1 and team 2, Nam Truong village, Vinh Giang, Phu Loc district	29/10/2015	803m of irrigation concrete canal $B \times H = 40 \times 50$ ; 01 spill way $B =$ culverts built through road; 35 ha of rice field area irrigated.	Improved effectiveness of agriculture production; reduced irrigation expenditure through replacing earth canal with reinforced concrete irrigation canal. 210 beneficiary HHS in Nghi Giang village.

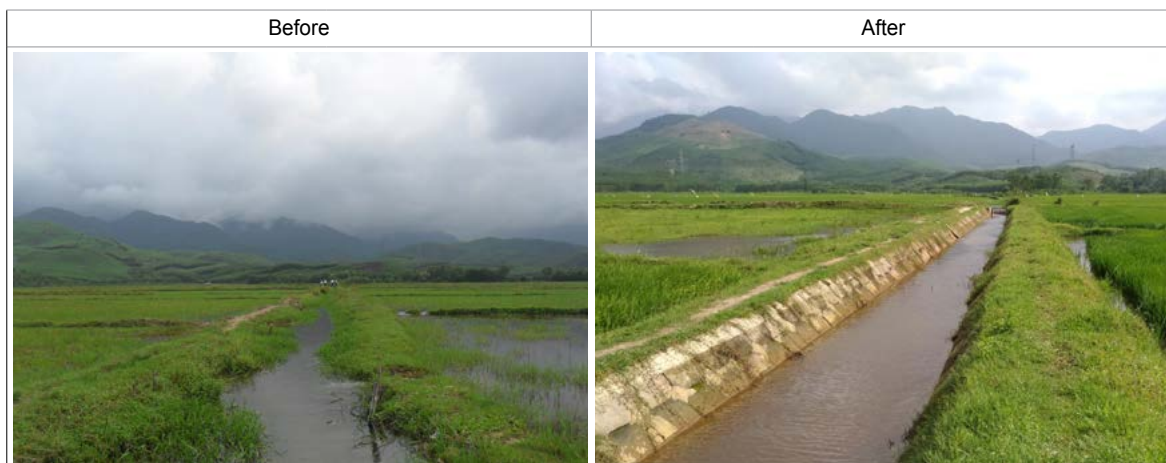
4	Dredging drainage canal for prevention against floods, Vinh My, Phu Loc district	28/09/2016	Dredging of 04 canals of 2571m including: 1) Main canal: 694m, covered with concrete + 03 box culverts ; 2) Trung Quan canal of Village 3: 522m; 1m in bottom width, slope m=1.0; 3) Trung Quan canal of Village 4: 611m; 1m in bottom width, slope m=1.0; 4) Khe Long canal: 744m, 1m in bottom width, slope m=1.0; 02 box culverts through road with a dimension of 1.0x1.5m & 1.1x1.5m.	Improved agricultural production for 600 farming HHs through improved drainage canals preventing against inundation of 35 ha of rice fields.
5	A Chuan flood drainage canal, Vinh Hai, Phu Loc district	23/09/2016	03 drainage canals, with 929m in total of length, covered and reinforced with concrete slabs M200# ; 01 culvert on the canal with dimension of 1.5mx1.0m; 21 water outlets and 2 impoundment water outlets	Improved and protected agricultural production for 197 farming HHs through improved drainage and irrigation of 33 ha of paddy fields.
6	Dredging Đập Tây channel, Vinh Giang, Phu Loc district	11/04/2016	Dredging 2784m of drainage channel including 2 sections : Section I: 275m: Bottom = 1.0m; slope m =1.5; Section II: 2509m: Bottom = 2.0m; slope m =1.5; 02 slab culverts at K0+175 & K1+1.64, dimension of 2.0x1.1m	Improved agricultural production for 550 farming HHs through ameliorated drainage of 35 ha of rice fields and 27 ha of aquaculture area.
7	Dredging Lương Viện channel, Vinh Hung, Phu Loc district	09/12/2016	Section I: 1319m. from K0; K1+319m: Bottom = 7m; slope=2.5m; refilling 69.5m of eroded embankment from K0+227 to K0+297; Section II: 257m from	Improved agricultural production for 230 farming HHs through improved drainage and irrigation for 43 ha of rice fields. 2 ha of agriculture land was restored into rice production with the dredged channel.

			K1+409 – K1+666m: Bottom=7m; slope m =2.5; 01 pipe culvert 2xD300.	
8	Duong Mong B irrigation canal, Vinh Thai, Phu Vang district	03/10/2014	324m of concrete irrigation canal with a dimension of 50cmx70cm.	Improved water irrigation for 80 ha of rice fields; Helped to reduce irrigation costs for local farmers; 220 HHs benefit.
9	Dredging Luu Bu canal, Phu An village, Phu My, Phu Vang district	22/12/2015	3,330m of drainage canal dredged; a drainage sluice reinforced & small concrete bridge abutment; 67m of eroded slope built with bamboo poles, wattles & red soil.	Boosted local agricultural production through improved drainage of 185 ha of rice fields; Protects rice cultivation and livelihoods of 930 farming HHs.
10	Dredging isolation canal between aquaculture production and agriculture production areas, Villages 1,2, 4, 5, Vinh An, Phu Vang district	23/12/2015	Dredging 3927.16m separated canal between aquaculture and agriculture areas; 3 round culverts D800; 01 round culvert D600; 01 drainage bridge culvert BxH = 3.0 x 1.35 (m); 01 double round culvert D2x800; 01 bridge culvert B=1.6m.	Improved drainage for 50 ha of rice fields and 38 ha of aquaculture. 700 beneficiary HHs in Villages 1,2,4,5.
11	An Luu canal dredging, Phu My, Phu Vang district	11/09/2015	01 539.4m of drainage canal dredged; 01 control sluice with dimension of 2 x 0.8m built.	Improved drainage of 61 ha of rice fields; 200 HHs of An Luu village benefit from canal system & improved agriculture production.
12	Dredging aquaculture canal combined with stone slope protection for erosion prevention, Vinh Phu, Phu Vang district	25/10/2016	Dredging 525m of drainage aquaculture canal with bottom width from 2.0 – 2.5m; 257m of rock slope protection;	Protects 7.3 ha of rice fields and 20ha of aquaculture production of 700 farming HHs against inundation with improved drainage system; Protects many houses in the resettlement area.

13	Dredging of Khe Tam drainage channel combined with reinforcing the embankment for protection, Vinh An, Phu Vang district	06/10/2016	3,492m of main drainage channel & 904m of branch drainage channel dredged; 908m of road with red soil surface K=0.95; 03 round culverts D400; 01 pipe culvert 2xD1000; 04 water impoundments.	Improved agricultural production (lotus flower, seed) and protects 33 ha of rice fields (230 farming HHs) from inundation through improved drainage channel.
14	Dredging canal between aquaculture and paddy fields and prevent salinisation, Phu Xuan, Phu Vang district	06/09/2017	Dredged 05 sections of canal with 8,236m in total length; 04 pipe drainage culverts.	Protects 160 ha of rice from salinity water and improved water drainage for 170 ha of aquaculture through improved existing water drainage system. 850 beneficiary HHs.
15	Canh Tre canal dredging, La Van Ha village, Quang Tho, Quang Dien district	15/08/2014	557m of canal with bottom width of 6m dredged; 02 RC drainage sluices with dimension: 2,6m x 2m.	Improved drainage and irrigation of 40ha of rice field and 5,3 ha of vegetable field (Rau Ma); Support development of agricultural production of 220 farming households.
16	Thach Ban irrigation canal, Quang Phuoc, Quang Dien district	05/08/2015	367m of concrete irrigation canal BxH = 40x60; 01 irrigation aqueduct BxH = 40x60; L=13m; Weir step BxH = 40x60; L=3m; 03 water outlets.	Improved irrigation of 20 ha of two-crop rice fields; Reduced irrigation costs for local farmers; Improved agricultural production for 120 HHs.
17	An Xuan canal dredging, Quang An, Quang Dien district	28/07/2015	864m of drainage canal dredged; 54m of rock canal embankment.	Improved irrigation & drainage for 150 ha of paddy; Improved water transportation (materials, rice) for 1,050 HHs; Improved living environment for HHs along the canal.
18	My Xa canal dredging, Quang An, Quang Dien district	28/07/2015	1,661m of drainage canal dredged; 01 drainage culvert D60.	Improved irrigation and drainage for 174 ha of rice fields; 654 beneficiary HHs.
19	Dredging of Con Hoang drainage canal, Quang Phuoc, Quang Dien district	19/08/2015	550m of the canal section located between Bau pond & Con Hoang sluice dredged; two reinforced concrete slab bridges with a dimension of 3.9m x 3.0m, and a round culvert D150; 02 embankment roads upgraded.	Improved drainage and irrigation for 65.5 ha of two-crop rice fields in the dry season; Improved conditions of agricultural transportation for local farmers; 1,040 beneficiary HHs.

20	Irrigation canal (concrete), Thang Loi agriculture cooperative, Quang Loi, Phu Vang district	18/05/2016	318m of concrete irrigation canal, BxH = 40x60(cm); 01 culvert under the road; 02 spill ways; 01 water step weir; and 07 water outlets built.	Improved agriculture production for 64 HHs through better irrigation of 16 ha of rice fields (two crops/year); Reduced costs of rice production with the new concrete irrigation canal.
21	Irrigation canal (concrete), Thanh Cong agriculture cooperative, Quang Cong, Quang Dien district	10/08/2015	1644m of concrete irrigation canal, BxH = 45x60(cm); 07 culverts under the road (including 1 additional round culvert D600); and 26 water outlets built.	Improved agriculture production for 213 HHs through better irrigation of 61 ha of rice fields; Reduced costs of rice production with the new concrete irrigation canal.
22	Moi Trung concrete irrigation canal, Quang Tho, Quang Dien district	23/05/2016	432m of concrete irrigation canal 50x65cm; 320m of concrete irrigation canal 40x55cm; 02 water step weirs L =3m; 03 culverts through the road L =2.5m; 01 round culvert D600; 01 round drainage culvert D1000; 02 round drainage culvert D400 (additional items); and 07 water outlets.	Improved agriculture production for 150 HHs through better irrigation of 30 ha of rice fields; Reduced costs of rice production with the new concrete irrigation canal.
23	Dredging drainage channel of Quang Thanh, Quang Dien district	25/04/2016	2,840m of drainage channel dredged; and 2,840m of soil embankment for transportation-built.	Improved agriculture production and transportation conditions for 420 farming HHs through better irrigation and drainage of 60 ha of rice fields with the newly dredged channel and soil embankment.
24	Dredging drainage channel of Quang Vinh, Quang Dien district	25/04/2016	5,570m of drainage canal dredged; and 700m of soil embankment for transportation built	Improved agriculture production and transportation conditions for 1,000 farming HHs through better irrigation and drainage of 200 ha of rice fields with newly dredged channel and soil embankment.
25	Flood drainage canal of Trung Ha agriculture cooperative, Loc Tri commune, Phu Loc district	23/03/2018	02 drainage canals with a total length of 1688m	458 agriculture HHs and 80 ha of paddy benefit





**Category 5: Kindergarten classrooms with shelter function - e.g. to enable women to engage in productive activities**

No	INFRA sub-projects	Completion time	Achieved outputs	Achieved outcomes
1	Sao Mai Kindergarten No.1, Quang Phu, Quang Dien district	03/10/2014	01 two-storey building with 04 standard classrooms & 01 annex playground of 248m2; equipment, utensils and 06 sets of toys.	Accommodates 102 children per school year; 50% increase in enrollment from resettlement areas (Van Lang village) in 2015-2016; Enrollment rate of children reaching school age increased by 18% in 2015-2016 school year; provision of safe shelter for 100 people during typhoons or heavy floods.
2	Son Ca Kindergarten No.1, Sia town, Quang Dien district	23/01/2015	01 two-storey kindergarten with 04 standard classrooms; an annex playground of 520m2	Accommodates 120 2-5 year old children per school year; provides safe shelter for about 100 people during typhoons or heavy floods.
3	Thuy Lap kindergarten, combining flood & typhoon shelter, Quang Loi, Quang Dien district	31/08/2016	02 storey kindergarten with 04 standard classrooms; Grading of 1000m2 of base land & 1460 m3 red soil filling; 350m2 playing yard.	Improved local kindergarten learning & teaching; Provides an additional learning space for 140 children reaching the kindergarten age; Provides safe shelter for 120 people in case of emergency.

4	Quang Cong kindergarten combined with typhoon/ flood shelter, Quang Dien district	08/09/2017	Constructed 01 two storey kindergarten building with 03 standard classrooms and 01 multi-function room, with 560m2 of total construction area; a playing yard of 188m2 built.	Increased learning conditions for 105 local children reaching kindergarten age and safe shelter for 120 people in case of emergency.
5	02 new classrooms of Loc Binh kindergarten, Loc Binh, Phu Loc district	11/12/2015	02 standard kindergarten classrooms, providing studying space for 60 children; 01 bridge house connecting to the existing classrooms.	Increased learning conditions for local kindergarteners; Indirectly supports local women to have spare time for earning a living; Provides a safe shelter for people during floods and typhoons. Beneficiaries: 60 kindergarteners and 100 people in emergency situations.
6	An Truyen kindergarten, combining flood & typhoon shelter, Phu An, Phu Vang district	03/04/2018	01 two-storey kindergarten with 04 standard classrooms, 560m2 of construction; 246m2 playing yard and roofing of 185m2 reception hall for children; 58m2 parking lot for teachers' motorbikes and bicycles.	School will be operational from Autumn 2018.
7	Tien Luc kindergarten, Loc An, Phu Loc district	30/06/2016	Upgrading of 10 normal classrooms into 10 standard classrooms, including toilet & storage space, dimension of one classroom 7.2x10.9 = 78m2; Renovation of functional rooms: 01 44m2 meeting room, 04 22m2 rooms for teachers; 01 86m2 multi-functional room and 289m2 of corridor and staircase. Total 1,287m2.	Improved conditions and quality of learning & teaching for 280 children of kindergarten age; Safe shelter for 400 local people in times of floods or typhoons; Indirectly helps local women to free up time to earn a living.



### Category 6: Boat shelters - to protect fishing folk from damage to their main economic asset during typhoons

No	INFRA sub-projects	Completion time	Achieved Outputs	Achieved Outcomes
1	Dredging Vinh Hien boat shelter, Vinh Hien, Phu Loc district	01/06/2016	Dredging 275m of a 20m wide and 1.5-2.0m deep boat shelter; 110m of rock gabion dyke for resistance to sand.	Provided a safe shelter for 100 fishing boats, reducing disaster risk for 100 fishing HHs.
2	Renovation of Mieu Nha typhoon boat shelter, Loc Dien, Phu Loc district	15/12/2016	208m of dyke combining with road function, B=3.5m; Dredging	Provided a safe shelter for 100 fishing boats, reducing disaster risk for 100 fishing HHs
3	Dredging boat shelter & construction of access road, Ke Vo village, Vinh Xuan, Phu Vang district	09/02/2015	01 boat shelter of 200m x10m dredged; 505m of concrete road with road base of 4m & road surface of 2.5m.	Provided a safe shelter for 30 boats during flood & typhoons; Improved access & transportation to 20 ha of rice fields & 20 ha of aquaculture area; 40 resettled & 160 other HHs benefitted.
4	Renovation of Le Binh typhoon boat shelter, Phu Xuan, Phu Vang district	06/09/2017	240m of rock embankment protection combining road function; dredging a boat shelter;	Provided a safe shelter to 200 fishing boats during floods & typhoons; Improved water environment of lagoon. 166 HHs of Le Binh village benefitted.

		01 sluice to move boat into boat shelter; 01 drainage sluice with dim of 4mx2m	
Before		After	
			

### Category 7: Access roads to productive areas - usually with dyke or evacuation function



No	INFRA sub-projects	Completion time	Achieved Outputs	Achieved Outcomes
1	Luong Quy Phu village road, Loc Dien, Phu Loc district	10/09/2014	1,478.5 m of concrete road with road surface of 3.0m and road base of 5.0m; 09 box culverts B=0.75m.	Created favourable conditions for transportation in an aquaculture production area of 30 ha; Improved living and production conditions for 175 households (HHs) of which 68 from resettlement areas.
2	Road from Ong Co to Bonbon stream, Diem Truong village, Vinh Hung, Phu Loc district	20/07/2016	1,658 m of Concrete road, road surface : 3.0m, road base: 5.0m; 500m of sub concrete road; 14 box culverts B=0.75m & 01 slab culvert B=2.4m.	Improved agriculture & aquaculture production in 40ha of productive land of 695 HHs; Improved environment for people living along the road.
3	Cay Bua road, Vinh Giang, Phu Loc district	06/01/2018	309 m of concrete road, 48 concrete irrigation	Improved agricultural production on 8 ha of land for 170 HHs; Improved evacuation

			canal, dimensions of 0.6mx0.4m; 02 box culverts with dimensions of 0.4x0.6m & 0.6x0.6m.	route for boats of local fishermen, 25 from resettled HHs
4	In-field road from Mr.Long house to Xuân O shrimp ponds, Xuan O village, Phu Xuan, Phu Vang district	08/11/2014	625m of concrete road with road base of 4.0m, road surface of 2.5m; 03 square culverts 60cm x60 cm; Existing culvert expanded from 1m to 3.5m; 20m of additional slope protection.	Improved transportation to and from 40 ha of rice fields & 50 ha of aquaculture production area; Supported agricultural production of 200 farming HHs.
5	Road from National road 49B to former Ha Uc market, Vinh An, Phu Vang district	03/10/2014	866m of concrete road with a base of 4.0m and road surface of 3.0m; 01 box culvert 0.5mx0.5m; 01 round culvert D800; 01 turnout.	Improved transportation to/from 4ha of rice & vegetable fields and 14.3 ha of aquaculture area; Improved traffic conditions for eco-tourism trips to the village and the lagoon; Facilitates possible evacuation of 12 HHs during floods or typhoons.
6	In-field road of Ha Tru B village, Vinh Thai, Phu Vang district	17/11/2014	1,097 m of concrete road with road base of 4.0m & road surface of 3.0m; 03 box culverts sized 0.4mx0.4m.	Improved transportation to/from 398 ha of rice fields and aquaculture area; Improved living conditions for 1,050 HHs (better living environment, safer, more convenient travel conditions); Increased prices (VND +5,000) per kg of rice sold on the spot, contributing to increased farmers' incomes.
7	Thanh Duong village road, Phu Dien, Phu Vang district	05/03/2015	1,030m of concrete road with road base of 4m and road surface of 2.5m; 01 reinforced concrete slab bridge with dimension of 4mx4m; 03 box culverts of 75cm x75cm.	Helped to protect 30 ha of rice fields against saltwater intrusion from Ha Trung lagoon; Improved transportation for an agriculture production area of 48 ha; 390 beneficiary HHs.
8	Phu Canh road, An Luu village, Phu My, Phu Vang district	11/09/2015	495 m of concrete road with road base of 4m and road surface of 2.5m;	Improved transportation conditions for agricultural production on 35 ha of two-crop rice fields of 200 HHs and 10 ha of

			03 box culverts of 40cm x40cm; 01 box culvert of 45cm x 60cm.	aquaculture production of 50 HHs (incl 22 resettled); Improved resettled HHs travel conditions to the commune centre.
9	Access road to agriculture & aquaculture productive areas, and slope protection of slope, Vinh Phu, Phu Vang district	15/09/2016	335m of concrete road including 02 lines: Line 1 : 147m, road base 4m, road surface 2.5m with 1 round culvert D1000, 01 round culvert D400; Line 2 :187m, road base 4.5m, concrete road surface 3.0m with 01 slab culvert B400 and reinforcing 98.4m of slope protection with masonry rock.	Improved transportation for agriculture & aquaculture production of 157 HHs; Protected slope of 187 m of road in Trung Ha village in the rainy and flooding season.
10	Access road to productive areas and resettlement areas, Phu My, Phu Vang district	15/09/2016	693m of concrete road including Line 1 (Access road to productive areas) : 522m, road base 4m, concrete road surface 2.5m with 04 slab culverts W400 & 01 round culvert D800; Line 2 (Access road to resettled households): 170m, road base 4m, concrete road surface 3.0m with 04 box culverts W500	Improved transportation for agriculture & aquaculture production of 128 HHs including resettled households; Resettlement areas are more accessible.
11	Phu Luong A in-field road, Quang Thanh, Quang Dien district	18/09/2014	855m of concrete road with 4m base & 2.5m surface; 06 slab culverts 50x50; 02 round culverts D50; 04 slab culverts expanded; 01 turnout.	Improved transportation conditions for rice production on 105 ha of rice field; Improved living conditions in terms of travel convenience for 333 farming HHs.
12	In-field road from Mr. Lau house to Thuong Con Phan, Quang Phu, Quang Dien district	03/10/2014	993m of concrete road with road surface of 2.5m and road base of 4.0m; 04 slab culverts 50cmx-50cm; 02 round culverts D50; 01 turnout	Improved transportation for agricultural production on 50 ha of rice fields and 13 ha of aquaculture farms; Improved travel conditions for 200 farming HHs.



13	In-field road from temple to pump station, Phuoc Yen village, Quang Tho, Quang Dien district	18/09/2014	1,145m of concrete road with road base of 4m width and road surface of 2.5-3 m width; 04 square culverts 50cmx50cm; 01 square culvert 75cmx-75cm; 02 turnouts.	Improved transportation conditions for crop production on 50 ha of rice fields and 10 ha of (Centella Asiatica) vegetable field; Reduced vulnerability to heavy rains and floods; Improved living conditions for 250 farming HHs.
14	In-field road Ong Tuan - Cau Ruong Mon, Quang Phuoc, Quang Dien district	10/11/2015	1158m of concretized access road with 4.0m wide road base, 2.5m of concrete road surface; 08 round culvert D400; 01 slab culvert BxH = 0.65x0.85; 01 slab bridge B=3.0m; reinforcement 01 slab bridge B=3.0m	Improved transportation conditions for agricultural production for 400 farming HHs in Phuoc Lam & Phuoc Ly villagers with a new access road to 70ha of rice fields and a new solid slab bridge.
15	Infield road from Tam Ky - Dat V combining dyke function, An Xuan village, Quang An, Quang Dien district	15/10/2015	Access road to 15ha of aquaculture and 80ha of rice field area; dyke separating from salty water for 44ha of rice field area; 575m of concrete road combining dyke function; reinforcement and expansion of 2 RC slab bridges B=2.5m; 192m of new rock slope protection; 01 round culvert D600.	Improved transportation condition from Quang An commune to Quang Thanh commune; Mitigates negative impacts of salt water intrusion; 840 beneficiary HHs in An Xuan village.
16	In-field inter-village road from Village 13 to Vinh Tu, Quang Ngan, Quang Dien district	25/08/2016	1,650m of concrete road with road base of 4m & concrete road surface of 2.5m in width and 16cm in thickness: 27 round culvert D300 crossing under the road.	Improved transportation for agriculture production in 45 ha of rice fields of 320 farming HHs
17	Nam Duong in-field road and canal, Quang Vinh,	18/01/2018	1441m of concrete road, 4m of road base, 2.5m	Improved living conditions and agriculture production through better transportation to



Quang Dien district		of concrete road surface; 175m of concrete irrigation canal with dimension of 80x80cm ; 8 round culverts D400; 4 round culvert sD1000;and 1 box culvert through the road B=0.6m	105 ha of paddy fields benefitting 373 HHs.
Before		After	
			

## Category 8: Water reservoirs

No	INFRA sub-projects	Completion time	Achieved outputs	Achieved outcomes
1	Expansion of two water storage reservoirs in Villages 1 & 3, Quang Cong, Quang Dien district	19/08/2015	01 reservoir with dimension of 80mx10mx-2.5m in village No.1; 01 reservoir with dimension of 50mx47mx2.0m in village No.3	Increase of nearly 5,000m3 of reserve water for irrigation in the dry season; Supplies enough irrigation water for 60 ha of rice fields in Winter-Spring crop and 35 ha of rice fields in Summer-Autumn crop; Reduces 13 ha of rice fields that suffer shortage of irrigation water; 235 beneficiary HHs.
2	Renovation of Bau Sen reservoir, Mai Vinh village, Vinh Xuan & Thanh Duong village, Phu Dien, Phu Vang district		Dredging & expansion from Bau Sen reservoir to Mai Vinh bridge, L= 1053.8m, B = 5-10m; Dredging & reinforcing of	Improved agricultural production for 473 farming HHs on 110 ha of rice fields in Phu Dien and Vinh Xuan; Increased annual rice production from 01 to 02 crops; Improved transportation conditions for 473 farming HHs.

		29/08/2016	Phuong Dien drainage channel, L=677.17m; slope masonry rock embankment, L= 179.28m; 01 control round culvert D1000; 1 PVC plastic round culvert D200; 01 control sluice gate BxH = 6.0x1.9(m), 2 PVC plastic round culvert D200; Upgrading concrete road, L= 211m, road surface B=4m; 01 RC slab bridge, B=3.5m, L= 12.9m; Dredging water store reservoir with total length of 1414.3m, B= 5.0m in Vinh Xuan & total length of 1553.36m, B= 5.0-10m in Phu Dien; 10 drainage pipe culverts D40.	
<b>Before</b>			<b>After</b>	
				

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