



Final report

Intervention: VIE1204311



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Acronyms

Acronyms used in the Final Report:

CC	Climate Change
DARD	Department of Agriculture and Rural Development
DoNRE	Department of Natural Resources and Environment
Enabel	Belgian Development Agency
JLCB	Joint Local Consultative Body
M&E	Monitoring and Evaluation
PCU	Project Coordination Unit
PPC	Provincial People's Committee
PSC	Project Steering Committee
SC	Steering Committee
TFF	Technical and Financial File
TICA & CD	Technical and Institutional Capacity and Capacity Development
TSU	Technical Support Unit

Intervention form	
Intervention name	Integrated water management and urban development in relation to climate change in Binh Thuan province
Intervention Code	VIE 1204311
Location	The Luy river basin, Bac Binh district, Binh Thuan province
Budget	Non-refundable aids of the Government of Belgian Kingdom and reciprocal funds by the Government of Vietnam
Partner Institution	The Project Coordination Unit of Integrated water management and urban development in relation to climate change in Binh Thuan
Date intervention start /Opening steering committee	03/09/2013
End date Specific Agreement	19/6/2019
Target groups	Government authorities, communities and institutions related to climate change
Impact ¹	To contribute to the sustainable development of Binh Thuan province.
Outcome	To support the institutional capacity in the province in integrated water resource management and urban development in relation to Climate Change (CC).
Outputs	The capacity of the authorities of the province in terms of CC, Integrated water resources management and Urban planning are improved with appropriate monitoring and evaluation mechanisms in place.
	A comprehensive strategy on CC is in place. It is based on various studies, including CC data and hydraulic modelling focused on operational impact on settlements of Luy river catchment and the revision of the existing master plans of Luong Son, Cho Lau and Phan Ri Cua towns, while key priorities of the CC action plan of the Luy river basin are defined.
	Priority strategic pilot activities are developed for lessons learnt targeting one of the 3 target towns to increase resilience to CC, with appropriate operational and maintenance modalities.

¹ Impact is a synonym for global objective, Outcome is a synonym for specific objective, output is a synonym for result

	The provincial CC strategy is supported by the active involvement of the communities and the private sector.
Total budget of the intervention	6,000,000 EUR, in which: - ODA funds : 5,200,000 EUR - Counterpart funds: 800,000 EUR
Period covered by the report	2013 - 2019

Global appreciation

Describe your global appreciation of the intervention:	Describe your global appreciation of the intervention:
<p>All activities of the project which are specified in the Technical and Financial File (TFF) such as studies, trainings, experience learning and planning revision, prioritised investments and communications have been implemented extensively by the Project Coordination Unit over a period of five years. Up to date, most of the activities have been completed and specific outcomes have contributed to support the local residents and authorities in the Luy river basin in particular and Binh Thuan province in general in mitigation of the effects of climate change. Products and models of the project can be seen as pioneer and be replicated in other localities; in addition to that they enable the local authorities to take further action plans in adaptation to the extreme climate change.</p>	
Score your global appreciation of the intervention ² :	Score your global appreciation of the intervention ³ :
Very satisfactory	
National execution official ⁴	Enabel execution official ⁵

² Very satisfactory - Satisfactory - Non satisfactory, in spite of some positive elements - Non satisfactory

³ Very satisfactory - Satisfactory - Non satisfactory, in spite of some positive elements - Non satisfactory

⁴ Name and Signature

⁵ Name and Signature

PART 1: Results achieved and lessons learned

1 Assessing the intervention strategy

1.1 Context

Background

Binh Thuan is one of the coastal provinces in central Vietnam where affected by climate change with phenomena such as the change of precipitation patterns, more frequent and severe floods and droughts, increasing desertification and coastal erosion especially in Bac Binh and Luy river basin. Floods occur every year along the Luy river during the rainy season, while deserts and coastal erosion are in the process of spreading over the years along the coast.

The project “Integrated water resource management and urban development in the relation to climate change in Binh Thuan province” has been implemented in the context of the Government of Vietnam and the Binh Thuan province are setting top priorities to cope with and mitigate the impacts of CC that has been affected the economy and the society especially in the Luy river basin, Bac Binh district. The focus is also to mitigate actors of economic activities that are caused by CC. Binh Thuan Provincial People’s Committee (PPC) issued an action plan to respond to CC for the periods of 2012 - 2015 and 2016-2020 and set out solutions for mitigation and adaptation to CC in Binh Thuan Province.

Institutional context

Under the support of the Government of Belgium, the Belgian Development Agency (Enabel) supported the province with project on “Integrated water resource management and urban development in relation to climate change in Binh Thuan province” with the objective to improve the institutional capacity for water resources management in the context of CC.

The project is implemented under the direction of the Project Steering Committee (PSC) including the representative of Enabel and Binh Thuan PPC and representatives of the local Departments and Branches. Apart from that, the project receives support from the Technical Support Unit (TSU) on technical issues to facilitate the implementation of the project effectively.

The Project Coordination Unit of “Integrated water resource management and urban development in relation to climate change in Binh Thuan province” (PCU) was established as an agency which is responsible for directly implementing the project activities on the basis of decisions of the Steering Committee (SC) and coordinate with relevant agencies to complete the project.

In addition, PCU implemented the project based on the harmonization of policies, regulations and guidelines of the Government of Vietnam, Enabel, POM, Financial and technical file (TFF) of the project.

During the project implementation, there were changes in the members of the PSC and the policies and regulations of Vietnam, but this issue did not significantly affect the project activities.

Harmo-dynamics context

PCU plays as a role in coordination, reallocation of the financial resources from both Donor and Government, cooperation and combination of knowledge and expertise from the international and national experts, local human resources on the basis of scientific criticism and local experiences in order to keep up with the continual adjustments during implementation process so that helps to create optimal, economical and high-performance results.

1.2 Important changes in intervention strategy

Basically, the project implementation is followed with 10-step strategy in the TFF. The initial activities were carried out in advance in the same order as: Capacity development and institutional strengthening, awareness raising among stakeholders, collection of input data, implementation of basic studies, modification of provincial CC strategy and planning and implementation of prioritized projects.

However, the approval procedure for performance of the studies took a lot of time so the selection of a number of pilot projects to respond to CC was conducted in parallel with the studies. This activity was implemented based on the needs of the locality, the TFF conformity and the agreement of the PSC. Therefore, PCU incorporated inputs data of study in the survey and design process during the implementation.

In addition, an M&E strategy was developed at the beginning of the project, which is the basis for PCU to conduct monitoring and evaluation activities in each phase of the project.

Up to date, all products of the project are in line with the objectives of the original TFF and have brought significant impact on the locality and Binh Thuan province. Especially, Binh Thuan made best efforts to perform the task on revision of master plans according to strategic and structural planning method with the integration of CC factors (revision of general planning Phan Ri Cua urban up to 2035, detailed planning of water drainage in Cho Lau town).

2 Results achieved

2.1 Monitoring matrix

Results / indicators	Baseline Value	End Target	End Value obtained	Comments
IMPACT:				
Number of CC actions conducted as a consequence of PPC decisions			12	
Sample evidence of increased resilience of sectors			12	
OUTCOME:				
Number of documents issued tackling CC problems	2	8	49	Data achieved

Results / indicators	Baseline Value	End Target	End Value obtained	Comments
				according to the latest survey
Number of trained stakeholders or trained staff who contribute with newly acquired CC knowledge to the decision-making process	0	12	17	Data achieved according to the latest survey
Percentage of provincial budget is invested in activities related to CC	0,14%	0,28%	0,605%	Values are means in the last 4 years of province
Measurable increase in institutional capacity with respect to assessment criteria from the TICA	1	4	3	Data achieved according to the latest survey
OUTPUT 1:				
Number of staff trained in climate change, integrated water resource management and urban development	0	575	907	Data achieved according to the latest training survey
Average change in scores on entry and exit tests	0%	20%	17%	Data achieved according to the latest training survey
Appropriate equipment and software systems are installed	1	3	4	Data achieved according to the latest training survey
Data management system (on climate change, integrated water resources management and urban development) to meet the needs of users at the provincial level	0	80%	75%	Data achieved according to the latest survey

Results / indicators	Baseline Value	End Target	End Value obtained	Comments
Coordination and exchange mechanisms meet the needs of the provincial government's knowledge management	0	80%	87%	Data achieved according to the latest survey
The meteorological & hydrological monitoring network provides new and relevant information	20%	80%	63%	Data achieved according to the latest survey
OUTPUT 2:				
Number of the studies was conducted	0	8	9	08 studies
A CC adaptation action plan is approved	1	2	2	
Master plans (provincial, cities/town) revised with regards to CC	0	4	2	02 plans
Prioritized proposals on CC are developed	0	1	1	
A study on the assessment of water resources in the river basin considering the impact of climate change is completed	0	1	1	
An inter-reservoir management system for decision making support to ensure the balance between maintaining and reducing flood water is built and operated				Cancelled by PSC
OUTPUT 3:				
No of (pilot) investments implemented, complying with CC adaptation specifications	0	5	6	Budget balance for 01 more investment
Effective O&M is implemented for each priority investment	0	5	6	
No, of lessons-learned-documents prepared on incentives of the priority investments and of other aspects of the Project	0	5	6	
OUTPUT 4:				
A public CC awareness raising strategy is developed	0	1	1	

Results / indicators	Baseline Value	End Target	End Value obtained	Comments
A disaster early warning system is developed	0	1	1	
No, of beneficiaries of newly upgraded CC resilient houses				Budget for this activity is not included in TFF for Binh Thuan
No. of new people participating in CC credit program				Budget for this activity is not included in TFF for Binh Thuan
No, of people participating in newly established committees				Budget for this activity is not included in TFF for Binh Thuan
Sample evidence of attempts to involve communities and/or private sector	2	5	4	
Sample evidence of changed behaviour due to increased awareness	2	5	4	

2.2 Analysis of results

2.2.1 To what extent will the intervention contribute to the impact⁶ (potential impact)?

First of all, the general objective of the Project is to contribute to the sustainable development of Binh Thuan province. The Project has been contributing to the general objective of Binh Thuan province.

Accordingly, the Project has carried out a series of capacity development activities through trainings, studies, construction of prioritized works and communications in various forms. The capacity of provincial authorities on CC, integrated water resource management and urban development is enhanced on the basis of establishing an appropriate monitoring and evaluation mechanism.

The results of the project contribute to update Decision 1175/QD-UBND dated June 19, 2012 on approving the Action plan to respond to CC in Binh Thuan province.

⁶ Terminology : Impact = General Objective ; Outcome = Specific Objective; Outputs = Expected Result

In addition, programs and projects that have been implemented in Binh Thuan in efforts to respond to CC affecting socio-economic development, specifically:

1	Small and medium urban development projects in the Central region	ADB
2	Project of Agricultural technical cooperation for Irrigation areas in Phan Ri - Phan Thiet (phase 2)	JICA
3	Binh Thuan province - water sector project	Italia
4	Rehabilitation and Sustainable development of forest protection (JICA2)	JICA
5	Integrated rural development in the Central provinces - Additional loan - Binh Thuan province	ADB
6	Green growth strategy facility	Belgian Kingdom
7	Results - based extension program on rural sanitation and fresh water supply	WB
8	Dam rehabilitation and safety improvement project in Binh Thuan province (WB8)	WB
9	Reduction of greenhouse gas emissions through the reduction of deforestation and forest degradation, sustainable management of forest resources, and conservation and enhancement of forest carbon stocks in Viet Nam (UN-REDD) Phase II – Binh Thuan province	Norway
10	Project on Planting coastal waves and sand-shielding forests to improve the living and cultivation environment of people in Binh Thuan province in the period of 2016-2020 (SP-RCC)	National Target Program
11	Water efficiency improvement in drought affected provinces (ADB8)	ADB

2.2.2 To what extent has the outcome been achieved? Explain

The project succeeded in supporting the institutional capacity of Binh Thuan province in integrated management of water resources and urban development in relation to climate change in Binh Thuan province through the achieved results. more than expected, expressed specifically through the number of documents addressed on climate change issues, staff using knowledge trained in the decision-making process, annual budget of the province for investment activities related to climate change, and the use of TICA criteria, these indicators are judged to be superior to the first phase of the project,

With limited resources on time but with the progressive efforts of the whole political system, the project has developed a specific monitoring and evaluation mechanism for each activity content, the first step creates a precedent on how to monitor, evaluate, prognosis to implement project activities, This is the result that can be verified and maintained if there are more similar projects in the locality.

2.2.3 To what extent have outputs been achieved? Explain

Output 1:

Indicator 1.1: *Number of staff trained in the field of climate change, integrated water resource management and urban development*

Through training and training programs throughout the project, there were 907 ministries participating in these programs far beyond expectations, thereby showing the interest of the sectors in the province on variable issues. Climate change is increasingly reflected in the parameters: 2016 is 73 turns, 2017 is 356 turns and 2018 is 478 times.

Indicator 1.2: *Changes before and after training*

With regard to the alternation of the results in the entry and exit survey, Binh Thuan set a target of 20%, through actual survey in the most recent year, it reached 17%, but did not meet expectations, however, when comparing The results compared to previous years have a huge change in the awareness of the participating officials, namely: 7% in 2016, 16% in 2018 and 17% in 2018.

Indicator 1.3: *Appropriate equipment and software systems are installed*

Baseline value is 1 as the province has only one software system at the provincial centre of environmental monitoring that can collect and restore data of surface water monitoring.

The final value is 4 as the project undertakes 3 activities on providing equipment and software systems to the province such as: GIS equipment and data management software; equipment and MIKE software for hydraulic hydrological study; Supporting hydro-meteorological observation stations and early warning systems.

Indicators of 1.4, 1.5, 1.6

To evaluate indicators of 1.4; 1.5; 1.6, the PCU sent an official letter to provincial departments and branches. Summarised results are as follows:

Most of responses are provided by officials who are closely working in relevant sectors to climate change and participated in workshops and training organized by the project, of which 8% of officials responded were women; 92% of the respondent is male. 80% of them believe that their agency is the beneficiary of data on climate change and disaster risk reduction. 40% of assessment officials said that the unit providing information on climate change adaptation and disaster risk reduction includes: DARD, DoNRE, SC for Disaster Prevention and Rescue, Women's Union, Department of Science and Technology.

Indicator 1.4: *The set of data management tools to meet the needs of users in the province on climate change management and urban development is 75%*

According to the officials involved in the survey, access to data is quite easy, the agencies in the province often exchange data with each other, 86% of officials think that they can access the necessary data in climate change response activities; the data to be transferred to any focal unit in the province does not affect their data access.

It is believed that the data were consulted and appraised by experts so that it is reliable, 78% of them is satisfied with the data format they have received; In addition, such kind of data is built on the basis of the products and reports that the departments have synthesized. However, some of them still concern about its validation in practice.

75% of officials of DARD, Hydro-meteorology station, SC of Disaster Prevention and Rescue are very pleased with the update and detailed data. The DoNRE with its extensive responsibilities in different fields in management and plays as an advisory to the PPC thinks that the current data is insufficient to meet the local needs. This is explained that the tasks related to climate change, resource management are quite complex ones so that more data, tools, legal policies would be required, and especially issues that to be solved constantly changing so that the forecast is not always comprehensive.

Departments such as Construction, Agriculture and Rural Development, Meteorological Station responded that results of the research reports, training sessions and communications of the project had an impact on their planning and decision making. For other departments, the impact is not significant. The average value is assessed as 69% in terms of using project data in planning and decision making at their agency.

Indicator 1.5: The impact of the cooperation mechanism and exchange on needs of knowledge management of provincial agencies is assessed at 87%

These indicators are highly appreciated by most officials in the province, 97% of them is aware of the importance of their agencies/organizations in responding to climate change; 75% officers understand their role in responding to climate change; 89% evaluated the effectiveness of their cooperation and information exchange in the field of climate change; 86% evaluated how effective cooperation and exchange between provincial agencies and organizations in the field of climate change.

They said that through the seminar of research, technical training courses of the project, training on communication helped them better understand the role of each individual and organization in responding to CC and environmental protection. Through this, officials are well aware of the effectiveness of information exchange between agencies in the province. According to the survey, officials of the Department of Science and Technology believe that the cooperation in information exchange between the Departments in the province is very effective. The input data, research reports of departments when offered to provide support or suggestions are met promptly.

Indicator 1.6: The availability of information related to the expanded hydro-meteorological monitoring system is assessed at 63%

For this indicator, two relevant and direct agencies are DARD, Hydro-meteorological station highly appreciated because the new information from the

hydrological monitoring system has brought them great benefits in establishing plan and make decisions.

The expanded system that provides new and useful information for provincial agencies is evaluated as 69%; 64% said that new information is useful for forecasting emergency weather events; 56% said that the new information would help their agencies in planning and making decisions about reservoir management under drought and flood conditions.

This data is reduced because most of departments do not directly benefit from the hydro-meteorological monitoring system, so their assessment is not applicable or related at a low level. In addition, this figure is lower than that of 2017 because in 2017, only 4 units directly related to the Department are concerned: DoNRE, DARD, Hydro-meteorological station; SC for disaster prevention and search and rescue.



Workshop/ training on Capacity Development

Output 2:

Indicator 2.1: Progress on the implementation of the studies

Final target value is developed mainly based on the TFF and predicting that, in each of the final years of the project cycle, there will be one study added, beside those have been named in the TFF. The possible studies include: (1) The study on the hydraulic and hydrology modelling in relation to climate change; (2) Analysis of the current and future climatic data for water resources

management for Luy river basin, Binh Thuan province; (3) Social-economic survey in Luy river basin in the climate change context; (4) Study on coastal erosion, including risk factors of sea level rising, sedimentation in Luy river and saline intrusion; (5) Study on climate smart agricultural model; (6) Analysis of impacts and vulnerability of social-economic sectors and public assets; (7) Master plan revisions of SSP; and (8) TICA & CD.

In 2016, PCU completed 03 studies such as: (8) TICA & CD, (3) Social-economic survey in Luy river basin in the climate change context; (2) Research on current and future climate data and analysis for water resources management in Luy river basin in Binh Thuan province.

In 2017, PCU completed 3 studies including: (1) Hydrological study and (4) coastal erosion and (9) Groundwater.

In 2018, the researches were carried out including: (5) Smart agricultural farming models; (6) Analysis of impact and vulnerability on Socio-economy and public assets; (7) Revision of strategic structure planning.

Therefore, the total number of studies is 9.

Indicator 2.2: A CC adaptation action plan is approved

Binh Thuan PPC has approved the Action plan to respond to CC on 19/6/2012 (Decision No. 1175/QĐ-UBND) so baseline value is 1.

Minutes of the SC Meeting on 10/01/2017, the SC agreed to allow the PCU to incorporate 03 activities including: Vulnerability study; Review of CC strategy with community based participation and priority action plan, methods, tools, processes and consultancy into a joint study and use of all three sources of budget for activity "Assessing vulnerability in climate change for Luy river basin and updating Action plan to respond to CC in Binh Thuan province" with the objectives of supporting Binh Thuan to update the action plan that replaces Decision 1175, so the expected value is 2.

The results of the study "Assessing vulnerability in climate change for river basins and updating the Action plan to respond to CC in Binh Thuan province" will be handed over to the Department of Natural Resources and Environment (DoNRE), together with the results of the project of developing climate change action plan for Construction, Transport, Industry and Trade, Tourism and some localities. In Binh Thuan province, the Department of Industry and Trade is the investor and other related departments and agencies, serving as a basis for the DoNRE in implementation.

Indicator 2.3: Revision of Master plan (provincial, cities/town) to CC

In 2018, with the agreement of the PSC on the list of list of planning projects, PCU selected the consulting unit to implement the planning, specifically the following planning projects:

- To revise the general planning of Phan Ri Cua urban, Binh Thuan province to 2035 with requirements on climate change response and strategic structural planning.

- Detailed planning for drainage system of in the north centre of Cho Lau town, Bac Binh district with the scale 1/2000.

Both projects were completed so that the completion value set as 02.

Indicator 2.4: Prioritized proposals on CC are developed

Final target value is set as 1 that is in line with the TFF, the project will support the development of an action plan prioritizing CC adaptation measures for Luy river basin with focus on the targeted 3 towns of Luong Son, Cho Lau and Phan Ri Cua.

This activity is combined with activities of vulnerability research and revision of action plan to respond to CC. This activity was finalised so that the completion value set as 01.



Activity of Smart climate agricultural models



Workshop on reporting the results of study

Output 3:

Indicators 3.1, 3.2, 3.3

So far, the Project has completed of 06 prioritised construction works, so the performance indicator is set as 06, specifically:

- The works of drainage system in Luong Son town, Bac Binh district;
- The drainage works in the centre north of Cho Lau town, Bac Binh district

- Extension works of a water supply system for Luong Son town, Bac Binh district;
- Embankment works in Luy river, Bac Binh district;
- Upgrading and expansion the flood drainage system of Luy river (flood drainage in Dong river), Bac Binh district;
- Extension works of the water supply system in Binh An and Song Binh communes, Bac Binh district.



Construction works

Output 4:

Indicator 4.1: A public CC awareness raising strategy is developed

Communication strategy to raise public awareness about climate change has been developed through efforts to analyse resources on time, personnel and funding, whereby the strategy is concretized by the no objection letter of the Belgian Development Agency on April 14, 2016 in Official Letter No. 46/CV-BDPDA dated April 12, 2016 on the adoption of Communication Plan on Integrated water resource management and Urban development in relation with climate change in Binh Thuan province. In this strategy, communication channels such as newspapers, TV, broadcasting, loudspeaker broadcasting of communes, network training, writing and painting competitions, contest in schools and media such as leaflets, posters, shirts, hats and in conjunction with capacity building activities to constitutes a communication strategy for the project.

Through this strategy, during the project implementation, 67 direct communication activities were conducted in 2018 (to Women, youth, farmers, schools) and 5 indirect activities (website, television, radio, printed calendar, radio broadcast).

At the final stage of project, 60 communication activities were carried out in 20 schools and communication materials were delivered to the community. Specifically, materials such as brochures for school libraries, leaflets and related posters will be delivered to Board of Education of Bac Binh District. Lectures, media, documentary films, etc. on the project have been transferred to Women's Union, District Youth Union and Sports Culture Centre of Bac Binh District.

Indicator 4.2: A disaster early warning system is developed

Activity of support the hydro - meteorological monitoring stations and early warning system in output 1 has been completed, therefore, the performance indicator is set as 1.

Indicator 4.3 and 4.4

According to TFF and guidance of BTC/TSU in a workshop on development of the baseline report, there are no activities related to beneficiaries to upgrade the housing to adapt to climate change and the people participating in the program credit for climate change. Therefore, the baseline and final target values are not required for these indicators.

Indicator 4.5

The SC agreed on the cancellation of the establishment of dialogue platforms for stakeholders at the SC meeting on 04/08/2017. Thus the baseline and final target values are not required for this indicator.

Indicator 4.6: Sample evidence of attempts to involve communities and/or private sector

During the project's implementation, communication activities made an effort to appeal participation of community, three community groups namely are: school students, women, and farmers in Luy river basin (Bac Binh district). Specifically, these groups have activities on environmental clean-up day, making rules on environmental protection at schools and community.

The project also has made specific efforts in inviting private companies to participate in trainings related to water resources management so that a commitment was called for protection of water resources and wise and sustainable exploitation.

During the construction of works, meetings were held to exchange ideas from the community; this not only facilitated to obtain high consensus on the implementation of works but also enabled people in the community get more attention to the risks of CC.

Indicator 4.7: *Sample evidence of changed behaviour due to increased awareness*

Following communication sessions, there is a session on question and answer for students, farmers and women that shows the commitment in behaviour change in the future by their perception on using water resource and existing environment condition and from that point to have an adjustment on proper behaviour.

In order to be more accurate, objective and scientific, the project conducted a formal assessment on awareness and behaviour of residents in Luy river basin at the end of the project and it showed positive results.



A competition of Golden bell ringing" in Bac Binh



A communication contest for women in Bac Binh



A communication session at a school

2.2.4 To what extent did outputs contribute to the achievement of the outcome

In-depth training programs and seminars on the project's study results mainly focus on the areas of water resource management, urban planning and CC. Participants who involved in programs are officials from Departments and agencies, Women's union, Farmers' association, Youth groups, companies under the management of the state and local offices. Number of participants who

attend in the trainings and number of documents to address CC issues show more interest of province on CC than in the past.

The study results of the project are updated in the provincial Decision 1175 on the approval of action plans to respond to CC.

Within the project's budget and timebound, PCU has invested in priority projects as mentioned above. Up to now, the works have remarkably promoted the efficiency. The drainage works that were completed, contributing to limit local flooding in some areas of towns and improving the local infrastructure; Embankment works of Luy river bank has been completed and in the last flood (November 2018), it protected production land for households, especially areas of Cham ethnic people; The other works have been implemented such as construction of water supply system in Luong Son town and communes of Binh An and Song Binh so the local residents are direct beneficiaries of these works; Although Dong river flood drainage works has not been completed, it has promoted the efficiency of flood drainage quickly in the recent flood, protecting properties and crops of people and Cham ethnic group (without flooding rice). Apart from that, a bridge was built to contribute improvement of rural traffic, transport of agricultural products along the Dong river basin. Such works contribute to reducing the impacts of CC in target towns and other areas of Bac Binh district, especially contributing to improving the quality of people's life and infrastructure.

2.2.5 Assess the most important influencing factors, what were major issues encountered? How were they addressed by the intervention?

Important influencing factors can be listed as follows.

Decisions of the Steering Committee

Technical support of TSU

Recommendations of audit

Recommendations from Baseline survey and mid-term review

Recommendations of TSU consultants on project technical issues

Appraisal of sectors/ agencies in the province

Consensus of local people and authorities

<i>Key issues encountered</i>	<i>Solution</i>
Budget is not allocated in time and restricted	PCU proposed the Steering Committee to provide timely support
Data is incorrect, not updated or unavailable	Joint agreement among all parties involved in project to share the necessary data
Delay in approval	Liaise closely with the SC and stakeholders through PCU to promote processes

Risk on exchange rate	Obtain consultations of Enabel experts on the financial issues; periodical update of the project financial plan and disbursement report to provide accurate data, thereby funding source can be controlled.
Site clearance	PCU worked closely with local authorities and beneficiaries during the design process and assistance on site clearance
The prolonged flood and rainy season affects the construction progress of irrigation works	PCU strictly controlled the appraisal and approval progress in order to be proactive in the construction of works in dry season
Overlapping between different plans	PCU promotes the planning data collection during the implementation process, coordinating between the DOC and the local authorities and the relevant sectors to have synchronization between different plans.

2.2.6 Assess the unexpected results, both negative and positive ones

Negative ones

Slow progress of some activities

Delay in disbursement issues

Positive ones

The effectiveness of the works is beyond expectation: Dong river flood drainage works addresses 2,000 ha inundation in a faster time than expected; Proportion of people involved in the water supply program is high.

Dong river flood drainage works had to cope with various challenges in the implementation process due to the effects of rain and flooding, however, the project completed and promoted its efficiency.

The interest of stakeholders in training and training is greater than expected.

The Project receives positive responses on the construction of prioritized investment projects from the local community, the poor, women and ethnic minority group.

From some negative influences, the project accumulates more lessons learnt in project coordination.

2.2.7 Assess the Integration of Transversal Themes in the intervention strategy

Issues related to Gender equality

The project trainings on communication network for Women's Union are completed to provincial level to district and a commune in the Luy river basin. This network is a focus of the project as a gender balance and emphasizes the extremely decisive role of women in family and community development. And this network has proactively proposed 8 contests for 8 communes with more than 120 village-level women directly involved in communication. Such contests are opportunities and playgrounds for these women to promote creativity of singing and dancing, acting on environmental protection issues, criticizing gentle and witty but very effective behaviours that are harmful to the environment in their living areas. Through discussions and presentations by women groups, it seems that the role of women is crucial in waste treatment from household and the village/ street. They also strongly influence the behaviour of children in the family. It can be concluded that the communication role for women in this case is relevant and effective.

In other communication sessions, participants were paid attention to gender balance, from female students to female farmers participating in communication sessions. The percentage of women participating in training sessions is 33%

On the other hand, in the process of survey and getting consultation from local people about the construction of works, women, children and ethnic minorities are the priority subjects to participate and benefit directly in this activity.

Some project's construction works focus on addressing the difficult conditions of ethnic minorities and poor households such as embankment works of Luy river bank, flooding drainage system of Luy river in Dong flooding drainage route.

Environment

In all project's activities, environmental issues are considered as prime concern. Particularly, a commitment to environmental protection in the construction process was made between the PCU and the local government for the prioritized construction works. In addition, the construction unit makes a commitment to protect the environment and restore the construction site according to the current situation, this action received recognition and satisfaction from the people.

2.2.8 To what extent, have M&E, backstopping activities and/or audits contributed to the attainment of results? How were recommendations dealt with?

The approved M&E framework was considered as a basis for PCU to guide the implementation of activities towards to objectives of the project. M&E activity was conducted and supervised by a specialized staff on the monthly, quarterly and yearly basis.

The audit's recommendations were reviewed and resolved by the PCU with aims to overcome shortcomings and orientate the project's activities.

3 Sustainability

3.1. What is the economic and financial viability of the results of the intervention? What are potential risks? What measures were taken?

Workshop and training programs of the project will be applied by provincial branches with regard to promulgation of policies.

The result of studies will be inputs for other activities and are likely to be replicated in other river basins.

The construction works which have been invested, promoting their efficiency in mitigation of floods, river bank erosion, shortage of clean water, development of agricultural production, improvement of the living standard of local residents and contributing to the embellishment of local urban areas.

All results of the project have been approved by the PPC and will be transferred to relevant agencies that respond to necessary conditions on human resources, expertise and finance to exploit products and application of studies in the next action plans.

The above contents are detailed in the project final report and transfer plan.

3.2. What is the level of ownership of the intervention by target groups and will it continue after the end of external support? What are potential risks? What measures were taken?

Government group

The governmental group inherits the results of the project as follows: The results of studies include data on CC, hydrological models and other studies in revision of the provincial strategy on CC and identifying the main priorities in action plans; training programmes that are disseminated and applied in the decision-making process; management software system such as GIS, MIKE, MODFLOW; of early warning system and observation stations are transferred to appropriate management agencies to help the province improve management mechanism or alert disasters and develop the action plans timely.

Potential risks and measures: Lack of financial funding to maintain the project's results in the long run. The solution is to transfer the project's products to the units that are specialized and have sufficient resources for management

and operation. Besides, the province will create favourable conditions to attract resources from the private sector and other organizations to exploit these results.

Local residents

Local residents are direct beneficiary from the construction works that help the community mitigate the risks and effects of CC; the community are aware of more attention from the government system in efforts to control the consequences of CC through water resources management towards the applications for current urban development and in the future.

Potential risks and measures: In fact, local residents in the community are the owners of the achievements of intervention such as construction works, communication tools and it will continue after project's closing. It is easy to see that the potential risks don't exist in the works but the awareness raising in the community that will be fading time by time. Therefore, the ownership must be emphasized in the transfer activity to aim at sustainability.

3.3. What was the level of policy support provided and the degree of interaction between intervention and policy level? What are potential risks? What measures were taken?

Potential risks: Lack of funding for implementing priorities in action plans and investment projects to tackle the effects of CC.

Measures: Using the province's funding or calling for other resources as ODA, loans.

The results of the project contribute to revision of action plan on respond to CC in the province while identifying the main priorities of the action plan.

Structured strategic planning with CC adaptation is applied in revision of master plan for Phan Ri Cua town to 2035.

3.4. How well has the intervention contributed to institutional and management capacity? What are potential risks? What measures were taken?

Institutions are enhanced through theoretic trainings and then put into such practical ways as issuance of relevant documents decisions on the implementation of projects and works, thereby creating a foundation and solid skills for handling issues in practice. This content is also at risk of fading over time so the PCU emphasizes the combination of the project implementation experience to apply to the daily activities.

The researches contribute to the improvement of management capacity and responding to CC in making priority action plans; construction works also contribute to mitigate the impacts of CC on the lives of local residents, enabling the local authorities in urban construction and embellishment; GIS supports units/ agencies in data management; Hydraulic – hydrological study and development of early warning system and monitoring stations support in water resource management and disaster forecast; Revision of urban planning helps the province make appropriate construction plans to embellish urban areas, boost the regional socio-economy. The capacity to maintain and exploit these

results is likely to be limited, the province has issued a decision to transfer to the units that are qualified to implement.

4 Learning

4.1 Lessons Learned

No.	Title of lessons learnt	Description	Remarks
1	Project investment proposals are prioritized to solve urgent and challenging issues and to promote the potentiality of the province.	<p>Adopting relevant activities of the project to address the local community's issues is a decisive factor for project effectiveness, investment efficiency, and strong advocacy from local people and authorities. Specifically:</p> <ul style="list-style-type: none"> - Binh Thuan is among the arid provinces and lack of water in the dry season so that agriculture sector is impacted extremely, Identifying such kind of facts, the project has put proper investments to the most affected areas by drought such as: water supply and drainage system, construction of salinity prevention embankments, support to smart climate agricultural models, etc. ... - Binh Thuan has a high number of sunshine hours which solar lighting projects are appropriate for investment, <p>Therefore, difficulties that the local people are facing with to be addressed and the life of community is improved.</p>	
2	Capacity building for the leaders/ officials enhances efficiency during project implementation with regard to the capacity and Institutional development for provincial leaders/ officials.	Trainings and workshops are conducted with participation of leaders/ officials at different level that facilitate a better coordination and provide prompt support during the implementation of project.	

No.	Title of lessons learnt	Description	Remarks
3	Harmonious and close coordination among four parties: local government – consultancy agency - investor – central agency will promote the efficiency for the progress of the project's implementation.	<ul style="list-style-type: none"> - Local authorities support with providing necessary information to the consultants, - Investors provide close supervision to consultancy agencies and consultants regularly review progress reports, - Investors provide progress reports on implementation results, financial and technical difficulties; central technical assistance, financial allocation. 	
4	Considering proposals from consultants will support to have broader ideas for project implementation.	Innovations in design with green and friendly environment: Use of vetiver grass in embankment design to prevent erosion of Luy river bank, Bac Binh district.	
5	Close combination between construction of works and communications will promote the efficiency in advocacy of the project's activities and community engagement.	The project's works require much support from the local residents, especially their willingness in site clearance, Communications play an important role in organising forums for direct dialogue to help people understand the project's mission, stimulating the love of nature, appreciation of water resources and contribution to the community, On the other hand, it also helps the community understand more about the project's efforts to protect water resources and adapt to climate change, This contributes to the implementation of the works.	
6	Focus on baseline survey to develop quality M & E indicators to guide activities.	This helps the project to follow the logical framework and better interpretation of project's outcomes,	
7	Develop risk management matrixes that identify issues to be addressed during project implementation.	Experience shows that the matrix has helped the PCU to pay attention to factors that interfere in the implementation process as well as the conditions (assumptions) needed to succeed.	

No.	Title of lessons learnt	Description	Remarks
8	Develop more efficient and detailed implementation and disbursement plans.	Enable Project leader and team to keep track and manage activities in a good manner,	
9	Experience gained from all recommendations of audit results.	To improve the project management process, accounting and helps to speed up the project progress.	
10	Setting initial indicators requires more consideration for the project in a whole.	This will result in a reasonable initial target values (not too high or too low).	
11	M & E tasks should be performed and shared among team members.	M & E tasks are shared that facilitate rapid performance and participatory approach and helps members to understand the nature of indicators and their implications, thus helping to achieve higher quality project performance.	
12	Diversification of communication forms will facilitate successful communication strategies.	Direct communications to people or adolescents need dynamic and engaging forms that will help to transmit the message faster and broader to the community.	

4.2 Recommendations

Recommendations	Source	Target audience
Description of the decision to be taken	The source to which the recommendation refers	
Application of knowledge from trainings in advising and issuing decisions	Profile and results of training - TI&CA	DoNRE and relevant provincial units/branches
Application of the project's study results into other activities	Project's study results and products	Relevant provincial departments/units/branches, investors, locality
Exploitation, operation and maintenance of construction works	Completed construction works	Receiving unit
Application of equipment and geoinformatics technology for data management and GIS database development	Project's product	DoNRE and relevant provincial units/branches
Utilisation and operation of hydro-meteorological monitoring devices and early warning systems	Project's product	DARD and relevant provincial units/branches
Updates of provincial action plan to respond to CC	Vulnerability study of the project	DoNRE and relevant provincial units/branches
Implementation and attraction of investment in construction of infrastructure works that bring economic benefits to the locality after approving the plans	The general urban planning projects of Phan Ri Cua; planning for water discharge in Cho Lau town	Bac Binh DPC Tuy Phong DPC Investors

PART 2: Synthesis of (operational) monitoring

1 Follow-up of decisions by the JLCB

Key decisions made by JLCB	Performance
Approval of project implementation plan and disbursement report	Completed
Modification some budget lines against the TFF	PCU implemented according to the approved financial plan
Approving the list of activities to be implemented by the project (research activities, list of investment works, trainings)	PCU implemented and finalised all activities
PCU needs to focus on acceleration of the tasks in the implementation plan, ensuring the disbursement schedule at the end of the project	PCU implemented and ensured the disbursement progress of the project
Agreement on the policy of using surplus capital from tax reimbursement and contingency of the project for additional investments	Performed and completed
End Term Review	Performance
Progress of activities	All activities were finalised.
Disbursement progress	The disbursement progress is being implemented on time
Relevance:	PCU affirmed that inputs of studies such as hydraulic - hydrology and climate change for Luy river basin (major studies) are linked to other project activities such as planning revision and design of construction works.
Sustainability:	The products of the project have been transferred to the end users according to the approved list by the PPC
Audit	Performance
Recommendations on bidding and finance	PCU adopted recommendations and clarified in each auditing period in order to resolve issues.

2 Expenses

An overview of expenses from FIT

CODE	Results - Activities	MODE	BUDGET	End 2018			2019 EXECUTION / PLANNING				2019 TOTAL	<i>beyond SA end</i>	Balance 'after' Planning	Rate 'after' Planning
			vDo3	Total Expended	% of Budget	Total Balance	Q1	Q2	<i>beyond SA end</i>	<i>beyond SA end</i>				
A	Support institutional capacity in Binh Thuan in IWRM and UD in relation to CC		4.139,1	3.127,7	75,6%	1.011,4	197,3	608,6	-	-	805,9	-	205,5	95%
R1	The capacities in CC, IWRM and urban planning within the province are improved		919,1	645,8	70,3%	273,3	21,3	39,1	-	-	60,3	-	212,9	77%
A_01_01	Capacity building of PCU in project management, procurement, M&E and reporting	REGIE	260,0	246,8	94,9%	13,2	-	26,2			26,2	-	13,0 ⁻	105%
A_01_02	Technical institutional and capacity Needs Assessment	NEX	34,0	31,4	92,5%	2,6	-	-			-	-	2,6	92%
A_01_03	Capacity building of related agencies and stakeholders in IWRM, urbanization and CC	NEX	211,1	177,4	84,0%	33,7	-	-			-	-	33,7	84%
A_01_04	Strengthen cooperation/coordination mechanisms among agencies with regards to CC, IWRM & urban planning	NEX	4,4	0,3	6,9%	4,1	-	-			-	-	4,1	7%
A_01_05	Data collection (including baseline survey)	NEX	44,6	33,3	74,6%	11,3	-	7,1			7,1	-	4,2	91%

A_01_06	Support to hydro-meteorological monitoring stations	NEX	277,0	105,2	38,0%	171,8	0,8	2,7			3,5	-	168,3	39%
A_01_07	Comprehensive database management through GIS	NEX	49,0	41,8	85,4%	7,2	-	-			-	-	7,2	85%
A_01_08	Communication & dissemination of lessons learned	NEX	39,0	9,5	24,5%	29,5	20,4	3,1			23,5	-	5,9	85%
R2	Comprehensive integrated strategy to respond to CC is in place		831,0	658,4	79,2%	172,6	64,0	23,0	-	-	87,0	-	85,6	90%
A_02_01	Comprehensive studies and modeling of Luy river basin	NEX	636,0	587,3	92,3%	48,7	61,8	-			61,8	-	13,1	102%
A_02_02	Support to revision of the CC strategy in a participative way based on the studies	NEX	50,0	-	0,0%	50,0	-	-			-	-	50,0	0%
A_02_03	Master plans revision of towns & hinterlands along Luy river considering CC and SSP principles	NEX	144,0	71,1	49,4%	72,9	2,1	23,0			25,1	-	47,8	67%
A_02_04	Priority action plan, methodology, tool, process and consultancy	NEX	1,0	-	0,0%	1,0	-	-			-	-	1,0	0%
R3	Pilot intervention to improve physical conditions of one target town		2.285,0	1.785,8	78,2%	499,2	78,9	545,0	-	-	624,0	-	124,8	105%
A_03_01	Physical infrastructure to adapt 1 urban center & its close hinterland to CC	NEX	2.285,0	1.785,8	78,2%	499,2	78,9	545,0			624,0	-	124,8	105%
A_03_02	Support to appropriate O & M measures	NEX	-	-	0,0%	-	-	-			-	-	-	n/b
R4	Active involvement of community and private sector		104,0	37,7	36,3%	66,3	33,2	1,5	-	-	34,7	-	31,6	70%

A_04_01	Awareness raising campaigns about CC impact, change of behavior, water & energy efficiency	NEX	87,0	23,9	27,4%	63,1	31,6	-0,6			31,0	-	32,1	63%
A_04_02	Set-up of platforms of dialogue for Rao Cai river basin with all major stakeholders	NEX	-	-	0,0%	-	-	-			-	-	-	n/b
A_04_03	Communications and Community development	NEX	17,0	13,8	81,4%	3,2	1,6	2,1			3,6	-	0,5	103%
B	Fund installment to project activities													
B_01	Fund installment to project activities										-	-		
B_01_01	Fund installment to project activities	CASH	-	-		-	-	-			-	-		
X	Contingencies		203,9	-	0,0%	203,9	-	-	-	-	-	-	203,9	
X_01	Contingencies		203,9	-	0,0%	203,9	-	-	-	-	-	-	203,9	
X_01_01	Contingencies Project management	NEX	162,9	-	0,0%	162,9	-	-			-	-	162,9	0%
X_01_02	Contingencies Own Management	REGIE	41,0	-	0,0%	41,0	-	-			-	-	41,0	0%
Z	General means		857,0	400,0	46,7%	457,0	28,2	14,8	-	-	43,0	-	414,0	52%
Z_01	Human resources		524,7	232,3	44,3%	292,4	15,4	13,5	-	-	28,9	-	263,6	50%
Z_01_01	Technical assistance specific to the province	REGIE	275,0	82,6	30,1%	192,4	1,3	2,1			3,5	-	188,9	31%
Z_01_02	PCU staff	REGIE	-	-	0,0%	-	-	-			-	-	-	n/b
Z_01_03	PCU staff	NEX			59,9%									70%

		249,7	149,6		100,1		14,0	11,4			25,4	-	74,7	
Z_02	Investments	52,6	50,2	95,4%	2,4		-	-	-	-	-	-	2,4	95%
Z_02_01	Vehicle NEX	28,7	28,7	99,9%	0,0		-	-		-	-	-	0,0	100%
Z_02_02	Office equipment NEX	11,2	9,6	85,7%	1,6		-	-		-	-	-	1,6	86%
Z_02_03	IT equipment NEX	10,0	9,3	93,3%	0,7		-	-		-	-	-	0,7	93%
Z_02_04	Office rehabilitation & LAN installation NEX	2,7	2,6	95,2%	0,1		-	-		-	-	-	0,1	95%
Z_03	Operating costs	142,2	81,2	57,1%	61,0		7,3	1,0	-	-	8,3	-	52,6	63%
Z_03_01	Office rent NEX	-	-	0,0%	-		-	-		-	-	-	-	n/b
Z_03_02	Utilities NEX	16,6	15,1	91,2%	1,5		1,0	0,1		1,1	-	-	0,4	98%
Z_03_03	Vehicle operating costs (1) NEX	14,0	11,1	79,3%	2,9		1,0	-		1,0	-	-	1,9	87%
Z_03_04	Communications incl. internet NEX	3,8	2,1	56,4%	1,7		0,1	-		0,1	-	-	1,5	59%
Z_03_05	Operational costs NEX	64,8	47,0	72,6%	17,8		4,0	0,9		4,9	-	-	12,9	80%
Z_03_06	Flights and per diem (to attend TSU activities) NEX	39,0	4,0	10,2%	35,0		-	-		-	-	-	35,0	10%
Z_03_07	Provincial Steering Committee NEX	4,0	1,8	45,5%	2,2		1,3	-		1,3	-	-	0,9	77%
Z_04	Audit, follow up and evaluation	137,5	36,4	26,5%	101,1		5,5	0,3	-	-	5,8	-	95,3	31%
Z_04_01	Backstopping REGIE	12,5	6,8	54,3%	5,7		0,6	0,3		0,9	-	-	4,8	62%
Z_04_02	Audit REGIE	55,0	9,8	17,9%	45,2		4,8	-		4,8	-	-	40,3	27%

Z_04_03	MTR, final evaluation in coordination with TSU & other 2 provinces	REGIE	70,0	19,8	28,2%	50,2
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-	-			-	-	50,2	28%
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NEX	4.486,5	3.161,9	70,5%	1.324,6
REGIE	713,5	365,8	51,3%	347,7
Total	5.200,0	3.527,7	67,8%	1.672,3

218,7	594,8	-	-	813,5	-	511,1	89%
6,8	28,7	-	-	35,5	-	312,2	56%
225,5	623,5	-	-	848,9	-	823,3	84%

3 Disbursement rate of the intervention

Source of financing	Cumulated budget	Real cumulated expenses	Cumulated disbursement rate	Comments and remarks
Direct Belgian Contribution (Nex)	4,486,500	3,975,403	89%	
Direct Belgian Contribution (Regie)	713,500	372,600	52%	
Contribution of the Partner Country	800,000	596,514	75%	
Other source				

4 Personnel of the intervention

No.	Personnel (title and name)	Gender (M/F)	Duration of recruitment (start and end dates)
	National personnel put at disposal by the Partner Country:		
	Support personnel, locally recruited by BTC:		
	Training personnel, locally recruited:		
I	Personnel receiving salary from the funding of Belgian Government		
1	Nguyen Minh Quan <i>Urban Planning Officer</i>	M	Starting date:01/12/2013; End date: 30/6/2019
2	Ho Thi Anh Dao <i>Hydro-meteorological Officer</i>	F	Starting date: 01/03/2014; End date: 30/6/2019
3	Doan Xuan An <i>Interpreter - Translator</i>	M	Starting date:01/04/2014; End date: 31/12/2014
4	Nguyen Minh Thong <i>Interpreter - Translator</i>	M	Starting date:01/04/2015; End date: 31/7/2016
5	Dang Tien Dung <i>Interpreter - Translator</i>	M	Starting date:01/08/2016; End date: 30/9/2016
6	Bui Thanh Hai <i>GIS Officer</i>	F	Starting date:13/06/2016; End date: 30/6/2019
7	Nguyen Thuy Yen <i>Environment Officer</i>	F	Starting date:13/06/2016; End date: 30/6/2019
8	Nguyen Thi Tuyet Minh	F	Starting date:01/11/2016; End date: 30/6/2019

No.	Personnel (title and name)	Gender (M/F)	Duration of recruitment (start and end dates)
	<i>Interpreter - Translator</i>		
9	Phung Tan Trung <i>Communications Officer</i>	M	Starting date:19/04/2017; End date: 30/6/2019
I	Personnel receiving salary from the reciprocal funding		
1	Kieu Dien <i>Director</i>	M	Starting date: 01/09/2013; End date: 01/03/2016
2	Phan Nguyen Hoang Tan <i>Deputy Director</i>	M	Starting date: 01/09/2013; End date: 20/10/2016
3	Phan Nguyen Hoang Tan <i>Director</i>	M	Starting date: 21/10/2016; End date: 30/6/2019
4	Nguyen Quoc Hung <i>Deputy Director</i>	M	Starting date: 16/8/2017; End date: 30/6/2019
5	Pham Thi Thanh Thanh <i>Financial Manager</i>	F	Starting date: 01/11/2013; End date: 31/12/2016
6	Tieu Thi Suong <i>Administration – Financial Assistant</i>	F	Starting date: 01/11/2013; End date: 30/6/2019
7	Tran Duy Tue <i>Administrative Officer</i>	M	Starting date: 01/10/2013; End date: 02/4/2014
4	Nguyễn Thanh Trúc <i>Driver - Security</i>	M	Starting date: 01/07/2015; End date: 30/6/2019
8	Nguyen Vu Phuoc	M	Starting date: 01/6/2016; End date: 30/6/2019

No.	Personnel (title and name)	Gender (M/F)	Duration of recruitment (start and end dates)
	<i>Administrative Officer</i>		
9	Tran Thi Thanh Thuy <i>Financial Manager</i>	F	Starting date: 01/01/2017; End date: 30/6/2019
10	Tran Ngoc Huy Hoang <i>Coordinator</i>	M	Starting date: 01/03/2017; End date: 08/5/2019
	International Personnel (outside BTC):		
	International experts (BTC):		

5 Public procurement

No.	Title of the package	Contract value (in Dong)
	Output 1	
1	Technical consultancy on Technical and Institutional Capacity Assessment (TICA) and Capacity Development plan (CD) on water resource management and climate change in Binh Thuan province	686,177,580
2	Technical consultancy on Training of technical and institutional capacity building on water resources management and climate change in Binh Thuan province	2,194,000,000
3	Technical consultancy on assessing the impact of climate change on groundwater in Central coastal zone of Binh Thuan province and propose protecting measures	1,265,000,000
4	Technical consultancy on socio-economic survey of Luy river basin in the context of climate change	651,392,390
5	Procurement and installation of equipment and technology transfer of geo-informatics for data management and development of GIS database	741,240,000
	Output 2	
1	Technical consultancy on vulnerability assessment in relation to climate change in the river basin and update action plan to respond to climate change in Binh Thuan province	3,251,933,000
2	Technical consultancy on smart agricultural models in adaptation with climate change in Binh Thuan province	2,182,000,000
3	Consultancy on revision the master planning of Phan Ri Cua town, Binh Thuan province to 2035	2,984,750,278
4	Technical consultancy on research of present and future climate data and analyses for water management in the Luy river basin, Bac Binh district, Binh Thuan province	3,299,921,572

5	Technical consultancy on development of hydraulic and hydrological models of river basin Luy in the relation to climate change in Binh Thuan province	6,200,000,000
6	Technical consultancy on coastal erosion, estuary sedimentation, saline intrusion in Luy river estuary, Binh Thuan province in relation to climate change	2,597,133,569
	Output 3	
1	The works of drainage system in Luong Son town, Bac Binh district	7,535,411,823
2	The drainage works in the centre north of Cho Lau town, Bac Binh district	18,334,283,000
3	Embankment works in Luy river bank, Bac Binh district	9,946,341,616
4	Extension works of water supply system for Luong Son town, Bac Binh district	6,395,848,977
5	Upgrading and expansion the flood drainage system of Luy river (flood drainage in Dong river), Bac Binh district	7,321,904,936
6	Extension works of water supply system in the communes of Binh An and Song Binh, Bac Binh district	18,500,255,107

6 Public agreements

This section includes tenders with small-scale consultancy, procurement and maintenance packages under the direct contracting process. (In the contract track of PCU).

7 Equipment

No.	Equipment type	Qty.	Unit	Cost		Exchange rate as of May, 2019 - MOF
				Budget (in EUR)	Real (in VND)	
I	Vehicle - 7-seater Toyota Fortune SR5	1	Vehicle	31,732	798,000,252	31,234
II	Office equipment & furniture – Electrical appliances					
A	Office equipment			21,200	475,881,532	18,626
1	Laptops (HP Probook 450 F6Q44PA)	2	Set		27,800,000	
2	Laptops (Apple Macbook Air)	1	Set		25,890,000	
3	PC computers (Venr GI-3330)	5	Set		55,409,547	
4	PC computers (Venr I34170)	4	Set		45,000,000	
5	Canon Printers (LBP 3300)	2	Set		8,527,272	
6	Canon Printers (LBP 6200D)	2	Set		7,800,000	
7	Multi- purposed printer (fax, scan, print) HP 1212MF	1	Set		5,354,545	

8	Projector (Sony VPL - DX126)	1	Set		18,500,000	
9	Screen (Toplite/ Apollo)	1	Set		1,472,727	
10	Photocopy (Toshiba E355)	1	Set		30,909,091	
11	Digital camera (Canon Powershot SX170 IS)	1	Piece		7,181,818	
12	Table for Deputy Director	1	Piece		11,227,441	
13	Chair for Deputy Director	1	Piece		3,590,909	
14	Tables for staffs	11	Piece		65,990,910	
15	Tables for staffs	11	Set		6,209,091	
16	Tables for Meeting room	6	Piece		27,545,455	
17	Chairs for Meeting	24	Piece		15,490,909	
18	Tables for Meeting room (6 seats)	1	Piece		6,318,182	
19	Chairs for Meeting room (6 seats)	6	Piece		3,872,727	
20	Chair and table for security	1	Piece		3,509,091	
21	Salon set	1	Set		12,681,818	
22	Two -winged cabinet	7	Set		45,190,909	
23	Two -winged cabinet	1	Set		8,090,909	
24	Three-winged cabinet	3	Piece		32,318,181	
B	Electrical appliances			107,350	25,909,303	1,014
1	Telephone (Nippon 1405)	4	Piece		869,092	
2	Refrigerator (Sanyo SR-U185PN)	1	Piece		4,461,118	
3	Water dispenser (ALASKA R81)	1	Piece		2,771,818	

4	Automatic voltage stabilizer (Lioa 2000 , 130)	1	Piece		1,600,000	
5	Safety box (Solid SLS-61C)	1	Piece		4,363,636	
6	Fan ASIA (VINA D16011L)	5	Piece		2,545,455	
7	Ti vi (Led 32P2400VN Toshiba)	1	Piece		4,627,273	
8	Telephone - Panasonic TSC11	1	Piece		426,364	
9	Telephone - Panasonic TSC11	1	Piece		426,364	
10	Paper shredder (Bosser 220X)	1	Piece		3,818,182	

8 Original Logical Framework from TFF:

8.1. General objective

General objective is “To contribute to the sustainable development of Binh Thuan province”.

8.2. Specific objective

Specific objective is “To support the institutional capacity in the Province in Integrated Water Resources Management and Urban Development in relation to Climate Change”.

8.3. Expected outcomes

The 10-step strategy is detailed into four outputs as below.

Output 1: The capacity of the authorities of the province in terms of CC, IWRM and urban development is improved with appropriate monitoring and evaluation mechanisms in place.

Output 2: A comprehensive strategy on CC is in place that is based on various studies, including CC data and hydrological models, focusing on the operational impact on the settlements of the Luy river basin and adjusting the integrated planning of existing plans of Luong Son, Cho Lau and Phan Ri Cua towns and also identify the main priorities of CC action plan for the Luy river basin.

Output 3: Priority strategic pilot activities are developed for lessons learned. Develop strategic priority pilot activities in one of the three towns to draw lessons, to increase resilience to CC with appropriate operational and maintenance practices.

Output 4: The provincial CC strategy is supported by the active involvement of the communities and the private sector.

9 Complete Monitoring Matrix

Performance outcome: To support the institutional capacity in Binh Thuan Province in integrated water resources management and urban development in relation to Climate change.

Indicators	Baseline value	Target value in 2015	Target value in 2016	Target value in 2017	Target value in 2018	Target value to date	Final target value	Unit of measurement
Outcome 1: Number of documents issued tackling CC problems	2	0	0	7	42	49	8	No.

Outcome 2: Number of trained stakeholders or trained staff who contribute with newly acquired CC knowledge to the decision-making process	0	0	0	2	15	17	12	No.
Outcome 3: Percentage of provincial budget is invested in activities related to CC	0,14%	0,14%	0,26%	1,88%	0,14%	0,605% (means)	0,29%	%
Outcome 4: Measurable increase in institutional capacity with respect to assessment criteria from the TICA	1	0	0	3	0	3	4	No.

Performance of outcome 1:

Indicators		Baseline value	Target value in 2015	Target value in 2016	Target value in 2017	Target value in 2018	Target value to date	Final target value	Unit
1.1	Number of staff trained in climate change, integrated water resource management and urban development	0	0	73	356	478	907	575	Turn of trainee
1.2	Changes before and after training	0	0	7	16	17	17	20	%
1.3	Appropriate equipment and software systems are installed		0	0	2	1	3	3	software
1.4	Data management system (on climate change, integrated water resources management and urban development) to meet the needs of users at the provincial level	0	0	0	66,67%	75%	70%	80%	%
1.5	Coordination and exchange mechanisms meet the	0	0	0	74,7%	87%	80%	80%	%

	needs of the provincial government's knowledge management								
1.6	The meteorological & hydrological monitoring network provides new and relevant information	20%	0	0	72,6%	63%	80%	80%	%

Performance outcome 2

Indicators		Baseline value	Target value in 2015	Target value in 2016	Target value in 2017	Target value in 2018	Target value to date	Final target value	Unit of measurement
2.1	Progress on the implementation of the studies	0	0	3	4	1	1	8	No.
2.2	A CC adaptation action plan is approved	1	0	0	0	0	1	2	No.
2.3	Master plans (provincial, cities/town) revised with regards to CC	0	0	0	0	0	2	4	No.
2.4	Prioritized proposals on CC are developed	0	0	0	0	0	1	1	No.

Performance outcome 3

Indicators		Baseline value	Target value in 2015	Target value in 2016	Target value in 2017	Target value in 2018	Target value to date	Final target value	Unit of measurement
3.1	No of (pilot) investments implemented, complying with CC adaptation specifications	0	0	1	1	0	4	5	No.
3.2	Effective O&M is implemented for each priority investment	0	0	1	1	0	4	5	No.
3.3	No, of lessons-learned-documents prepared on incentives of the priority	0	0	1	1	0	4	5	No.

	investments and of other aspects of the Project								
3.4	No, of km fresh water system built	0	0	0	0	30	47	16	No. of km
3.5	No, of km drainage system built	0	2,5	3,6	0,9	0	0	7	No. of km
3.6	No, of km of river bank built	0	0	0	0	5,8	5,8	0,7	No. of km

Performance outcome 4

Indicators		Baseline value	Target value in 2015	Target value in 2016	Target value in 2017	Target value in 2018	Target value to date	Final target value	Unit of measurement
4.1	A public CC awareness raising strategy is developed	0	0	1	0	0	0	1	No.
4.2	A disaster early warning system is developed	0	0	0	0	0	1	1	No.
4.3	No, of beneficiaries of newly upgraded CC resilient houses	n/a							
4.4	No, of new people participating in CC credit program	n/a							
4.5	No, of people participating in newly established committees	n/a							
4.6	Sample evidence of attempts to involve communities and/or private sector	2	0	0	1	3	1	5	Company/ Community
4.7	Sample evidence of changed behaviour due to increased	2	0	0	1	3	1	5	Company/ Community

	awareness								
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10 Tools and products

Material on the effects of the intervention or any experiences gained with the application of specific methods or tools:

- (Scientific)Publications
 - + Study results: TOR, the final results reports
 - + Materials of workshops and training programs
- Capitalisation reports
- Audio-visual material
 - + Technical and financial file
 - + Project operation manual
 - + Documents about the products of the project
 - + Documents about planning
 - + Documents for completion of construction works
 - + Media Profile
 - + Equipment and software products of the project: MIKE 11, GIS, MODFLOW
 - + Reports of Steering Committee, Steering Committee Decision
 - + Other periodic reports: Monop, Quarterly and monthly reports
 - + The operational and disbursement plans of the project
- Other sources
 - + System of legal documents
 - + Laws, Circulars, Decrees and State policies related to implementation of projects
- M&E approach/system
 - + M&E training materials
 - + Complete M&E framework
 - + Baseline, mid-term and end-term reviews
- Method
 - + TFF 10-step strategy
 - + Strategic and structural planning for Phan Ri Cua urban