CLIMATE PUBLIC EXPENDITURE AND INVESTMENT REVIEW (CPEIR) – PERIOD 2016 - 2020 - THUA THIEN HUE PROVINCE

1. Climate change in Thua Thien Hue

General introduction

Thua Thien Hue (referred to as Hue) is the southernmost coastal province in the North Central region with a coastline of 128 km.

In 2020, the population of the province was about 1.15 million and the GRDP per capita reached VND 49 million (2,120 USD). The economic structure includes: services, industry and construction, agriculture and tax of product minus product's subsidies respectively were 47.36% - 32.25% - 11.86% - 8.53%.

In 2020, the economic growth rate increased by 2.06%, below the planned figure due to the direct impacts of the Covid-19 pandemic and natural disasters during the year. Especially, the service sector had a negative growth of 0.79%, revenue from tourism decreased deeply by 64% over the same period. Industry and construction increased by about 6.21%; agriculture, forestry and fishery increased by only 1.34% due to the impact of consecutive heavy rains, storms and floods at the end of the year, especially the damages to fisheries, livestock, crops etc[1].

Thua Thien Hue province is concentrating all resources to strive towards the objective of becoming a special city under the central government by 2025. Experts also give scenarios for economic development by 2030 in which GRDP will increase by 7.5 - 8.25%. On December 10, 2016, the Politburo issued Resolution No. 54-NQ/TW on the construction and development of Thua Thien - Hue province to 2030, with a vision to 2045[2].

The impact of climate change on Hue

Hue has a lagoon and coastal communes which are vulnerable to many climate change-related events and natural disasters, such as an increased intensity of storms and floods. According to statistics from 1999 to 2018, the total loss caused by natural calamities is estimated in the deaths of 518 people and economic

1 According to the report: https://thuathienhue.gov.vn/vi-vn/Thong-tin-kinh-te-xa-hoi/tid/Tinh-hinh-kinh-te-xa-hoi-nam-2020/newsid/0FA30FDD-3ADD-433D-AEB2-AC8E0106402A/cid/F44166B3-62DD-4F97-B4A1-AB5300B14AB0

2 According to: https://nld.com.vn/kinh-te/kinh-te-thua-thien-hue-se-phat-trien-nhu-the-nao-ke-tu-nam-2020-20200129121440074.htm

damages of VND 9,306 billion. In recent years, floods have been attributed to cause the most damage, followed by storms[3].

River and coastal landslide events have been troublesome in Thua Thin Hue as well. In the province, there are more than 64 km out of 1,056 km of riverbanks that are seriously eroded, concentrating mainly rivers such as Huong River, Bo River, O Lau River, Phu Bai River, Nong River and Truoi River. This directly affects thousands of households living close to the river banks, impacting agricultural production and affecting historic works, local technical infrastructure works, and traffic. More than 10 km out of the total 127 km of coastline suffered heavy landslides, namely: Phong Hai - Phong Dien district; Quang Cong, Quang Ngan - Quang Dien district; Hai Duong - Huong Tra town; Thuan An, Phu Thuan, Phu Hai, Phu Dien, Vinh Thanh towns - Phu Vang district; Vinh Hai and Vinh Hien - Phu Loc district. The landslides threaten the lives and property of more than 1,000 households as well as the public infrastructure of the coastal area of the province[4].

Activities to respond to climate change [5]

On May 13, 2014, the Provincial UNBD issued the Action Plan to proactively respond to climate change and strengthen the management of natural resources and environmental protection in Hue province until 2020. The Action Plan included a list of strategies, programmes, and pro jects to proactively respond to climate change, enhance natural resource management and environmental protection in Hue province until 2020.

Recently, the Provincial People's Committee has issued the Action Plan to respond to climate change of Thua Thien Hue province in the period of 2021-2030, with a vision to 2050 (Decision No. 1720/QD-UBND dated July 14, 2021), in which clearly indicated the objectives, tasks as well as key solutions, the list of priority programs and projects to implement the action plan. This plan has also stipulated the responsibilities of departments, agencies, People's Committees of districts, towns and Hue city, organizations to implement the Provincial Climate Change Action Plan for the 2021-2030 period, a vision to 2050.

In recent years, through funding from the central, local and other legal sources, the province has invested in building embankments and is reinforcing about 81 km of riverbank embankmentsto prevenet or mitigate coastal erosion with a length of 2.6 km. Some examples include embankments to prevent landslides of the Huong and Bo rivers as well as embankments to prevent coastal erosion from the An village Duong, Phu Thuan commune, Phu Vang district at a cost of some 50 billion VND. At the same time, the Province is preparing to deploy an embankment against coastal erosion in Vinh Hai at a cost of about 250 billion VND[6].

Integrating the implementation of investment projects on climate change adaptation and natural disaster prevention such as the National Target Program on Sustainable Poverty Reduction (NTPSP), the recently developed rural construction program, the target program of sustainable forestry development, people resettled in landslide and flooded areas; The program on solidification of schools, medical stations and public works in service of evacuation of people when storms and floods occur.

Some localities and branches also actively guide the restructuring, plant varieties, livestock, crop adjustment, agricultural production techniques to adapt to climate change: research, transfer and application of science. Learning technologies in agriculture for restructuring, plant varieties, animals, crop adjustment, agricultural production techniques are fundamental to adapt to climate change. Applying and transferring

[3] Thua Thien Hue intensified response to natural disasters and climate change: https://thuathienhue.gov.vn/desktopmodules/DNNTinBai/PrintTinBai.aspx?newsid=21F9BDDD-5349-4CDA-BE7F-AAF601160D92

[4] Thua Thien Hue: The agricultural sector actively copes with climate change

[5] for reference and integration into the analysis results of public investment in climate change in each province.

[6] According to: https://baotainguyenmoitruong.vn/thua-thien-hue-nganh-nong-nghiep-chu-dong-ung-pho-voi-bien-doi-khi-hau-297164.html

technology in the fields of production and processing of agricultural, forestry and aquatic products, contributing to restructuring of plants and animals, increasing the competitiveness of agricultural products.

Proposed mitigation strategies include expanding the use of clean energy, renewable energy, restore protective forests, coastal forests, plan for conservation of coastal dunes, lagoons, and strengthen capacity to adapt to climate change of humans and other systems. Other proactive measures can include improving the capacity of natural disaster monitoring and warning in order to proactively prevent, prepare for, and mitigate natural disasters; closely monitor weather developments, direct the safe operation of irrigation and hydroelectric reservoirs, take measures to ensure safety of water reservoirs, and take measures to ensure safety of dikes,lakes, anddams during the rainy season.

2. Summary of Data on Climate Change Investment in Hue

2.1 Budget sources for climate change investment

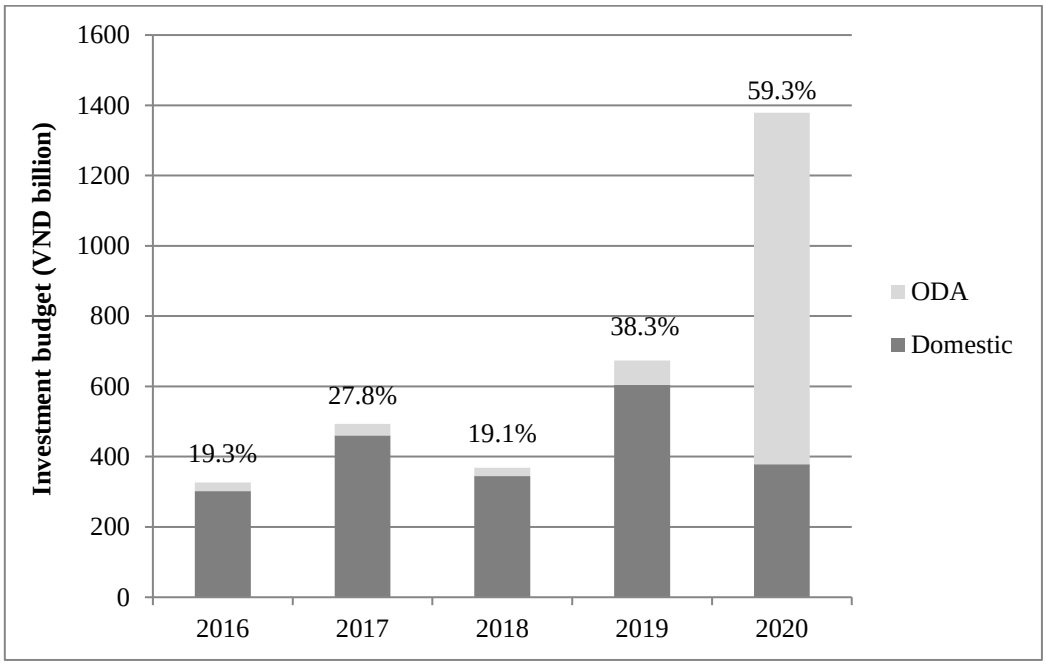


Figure 1: The total investment budget for climate change at Hue *– the percentage that the climate change budget represents of the total Provincial development investment budget is shown as a % on the top of each bar.*

Table 1: Investment for climate change in Hue by year from 2016 to 2020 and by capital source

Year	Domes. Invest. in climate change (billion VND)	Foreign investment in climate change (billion VND)	Total invest. in climate change (domes. + foreign capital) (billion VND)	Rate of domest. Invest. in climate change (%)	Rate of ODA Invest. in climate change (%)	Total public invest. of the province (billion VND)	Ratio of investment in climate change to total public investment of the province (%)
2016	301,7	25,0	326,7	92,3	7,7	1.695,3	19,3
2017	460,1	33,0	493,1	93,3	6,7	1.771,2	27,8
2018	345,2	22,9	368,2	93,8	6,2	1.930,4	19,1
2019	604,2	69,9	674,0	89,6	10,4	1.761,9	38,3
2020	378,7	1,000,7	1,379,4	27,5	72,5	2.325,9	59,3

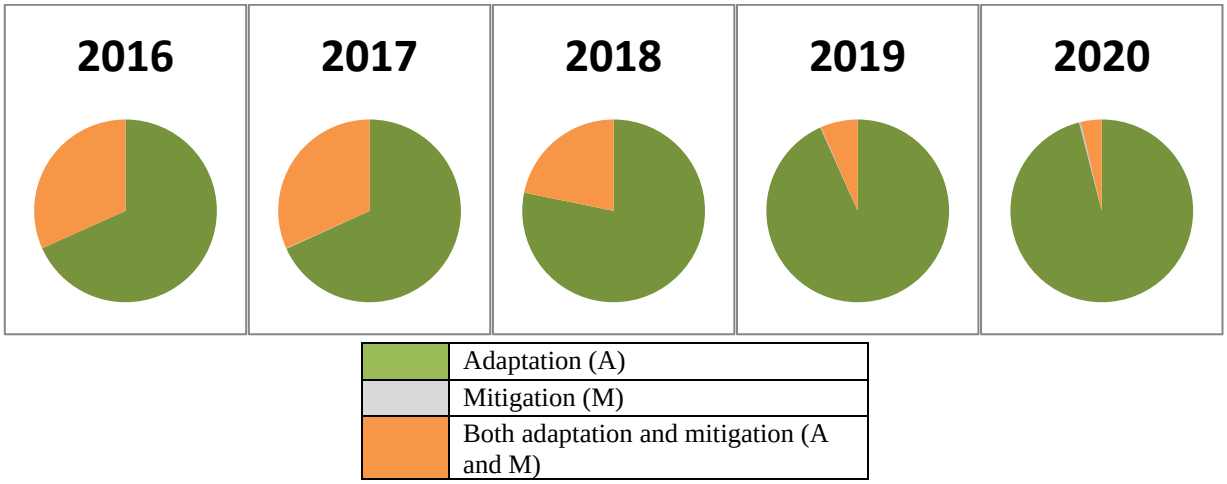
Average investment spending on climate change for the 2016-2020 period of Hue province is about VND 648 billion/year. The investment budget for climate spending was the highest in 2020 (VND 1,379 billion) and the lowest in 2016 (VND 327 billion), indicating a growing appetite for climate spending.

In the 2016-2020 period, the annual average annual domestic expenditure on climate change investment was VND 418 billion, accounting for 65% of the total climate investment expenditure. ODA contributed about 230 billion VND, or 35%, of climate related investments. The proportion of ODA investment varies by year, the lowest is 7.7% in 2016 and the highest is up to 72.5% in 2020. The trend of increasing climate investment budget is mainly supported by the high amount of ODA in 2020, as domestic climate investment drops in 2020.

The proportion of investment spending on climate change when compared to the total development investment expenditures of the whole province shifts from year to year, averaging 34.2% for the whole study period. However, the proportion is volatile ranging from 19% to 59% across the 5-year period.

2.2 Purpose of the investment budget for climate change

a) The "adaptation" or/and "mitigation" project type distribution:

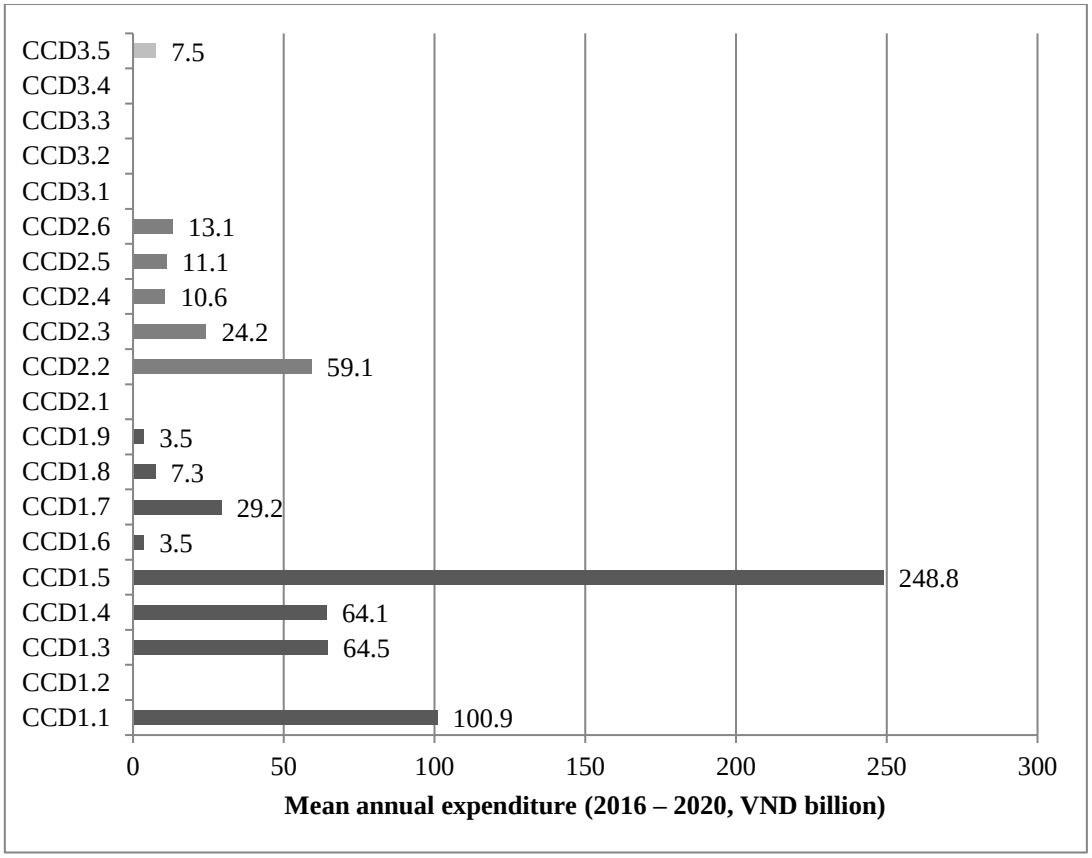


Detailed investment data for climate change adaptation and mitigation

Billion Dongs/%	2016		2017		2018		2019		2020	
Adaptation (A)	223,2	68,3%	336,3	68,2%	288,0	78,2%	628,8	93,3%	1.324,8	96,0%
Mitigation (M)	-	0,0%	0,6	0,1%	-	0,0%	0,4	0,1%	3,0	0,3%
Both adaptation and mitigation (A and M)	103,5	31,7%	156,2	31,7%	80,2	21,8%	44,8	6,6%	51,5	3,7%

In Hue province, investment projects related to climate change are in the field of adaptation, accounting for about 86.4%, projects to reduce greenhouse gas emissions account for a negligible proportion of total investment. However, Hue has multi-purpose projects, both contributing to mitigation and climate change adaptation, implemented with a total investment of about VND 436 billion. Projects combining both mitigation and adaptation include tropical rain forest investment projects, protection forest restoration and sustainable management projects, forestry sector development projects, projects on collection, treatment of wastewater, waste at industrial zones, medical centers, as well as projects to modernize the forestry sector and strengthen resilience in coastal areas.

b) Allocate investments in response to climate change (CCD) according to specific tasks (Average annual spending in the 2016-2020 period; Unit: billion dong)



Regarding the tasksof investment projects to respond to climate change in the province, the five main investment areas related are as follows:

- Water quality and supply, investment of VND 248.8 billion/year, accounting for 38.4%
- Coastal and coastal protection: investment of VND 100.9 billion/year, 15.6%
- Irrigation, investment of VND 64.5 billion/year, 10%
- River dykes and embankments, investment of VND 64.1 billion/year, 9.9% and
- Resilience of urban and residential areas, investment of 59.1 billion/year, accounting for 9.1%.

Other sectors have smaller investment from VND of 3.5 billion to 29.2 billion/year.

Regarding the local policies on responding to climate change and green growth, the provincial People Committee has issued and implemented: Climate Change Action Plan (CCAP), Green Growth Action Plan (GGAP). And, the Provincial People's Committee has issued Decision No. 3283/QD-UBND dated 25/12/2020 promulgating a plan to implement the Paris Agreement on climate change in Thua Thien Hue province, here are some comments when comparing public investment activities above with local available policies:

- Dykes, coastal protection, water quality are highlighted in the local CCAP.
- Green urban development is a core part of the GG action plan, however that does not stress “resilience” but includes a focus on e.g. energy efficiency and green/clean production, i.e. mitigation measures.
- Mitigation measures in the pie charts above are however almost completely absent in expenditure pie charts. Transport expenditure is modest but in the GGAP it is about mitigation, not adaptation.

- What is there as both mitigation and adaptation appears related to category 1.7 (forestry), which does get a mention in the local GGAP. It could also be that urban development is not only seen as green but also about adaptation (resilience – CCD 2.2), whereas the GGAP stresses “green” instead of resilience.

2.3 Budget expenditure from ODA

Here are the five (five) biggest ODA projects for climate change (Project name, capital source, investment period, share of total ODA investment):

1. Hue city water environment improvement project (2016-2020, 67.5%)
2. Project "Development Program of Grade II Cities (Green Cities) - Hue Subproject (2016-2020, 17.7%)
3. Investment Project for Forest Protection and Development in coastal and lagoon areas in Hue province (2016-2020, 6.0%)
4. Dam safety improvement and repair project (WB8) - Hue subproject (2016-2020, 3.0%)
5. Tourism Infrastructure Development Project to Support Comprehensive Growth in Greater Mekong Subregion - Phase 2, Component Project of TTH Province (2016-2020, 2.6%)

In addition to the above list, there are 02 ODA projects using the non-refundable ODA capital of the Luxembourg Energy and Climate Fund, Ministry of Environment, Climate and Sustainable Development for the period 2018-2020 including: (i) Projects Adaptation and resilience to climate change in Thua Thien Hue province-VIE/433 (ii) NAMA Pilot project - energy efficient for lighting system in Hue city-VIE/401. Although the total funding of these two projects is not large scale (4.0 million Euro), but are the typical projects in the field of climate change adaptation and mitigation. In particular, the VIE/401 project is aimed to identify and pilot an appropriate NAMA framework, contributing to the realization of Vietnam's national emission reduction targets. The Luxembourg Development Cooperation Agency (LuxDev), a member of the Working Group on Energy Efficiency under the Vietnam Energy Partnership Group (VEPG) under the Ministry of Industry and Trade, will connect and share with partners on construction building a measurement, reporting and appraisal (MRV) system and the project's results in Thua Thien Hue.

2.4 Policy and planning instruments

Instrument	Yes (√) or No (X)
Local NTP-RCC, report period to 2015	√
Climate Change Action Plan	√
Green Growth Action Plan	√
Plan for Implementation of Paris Agreement	√
Others: none	