CLIMATE PUBLIC EXPENDITURE AND INVESTMENT REVIEW (CPEIR) – PERIOD 2016-2020 - GIA LAI PROVINCE

1. Climate change in Gia Lai

General introduction

Gia Lai is a highland province in the North of the Central Highlands.

In 2018, the population of Gia Lai was recorded as 1.5 million. The Gross Regional Domestic Product (GRDP) per capita reached VND 45.4 million (USD $1,970) as well. The GRDP growth rate in 2018 reached 8.0%, leading to a total GRDP value of the whole province was VND 66.2 trillion (USD 2.87 billion).

Agriculture, industry, trade and services are key sectors foundational to the economic development of the province.

In recent years, despite facing unpredictable weather events, the province has stepped up the transformation of the structure of its agricultural sector in accordance with market needs and climate change adaptation. As of 2020, the average annual economic growth rate is 7.9%, the average income per capita reached VND 54.4 million, representing an increase of 1.55 times compared to 2015.

For the 2021-2025 period, Gia Lai will orient the economy towards prioritizing the development of agriculture with high-end technology applications through economies of scale that enable a more modern and efficient production of agricultural goods. Innovations include scaling suitable to each agricultural product and market, to flexibly use land for agricultural crops, convert inefficient crops to fruit trees, and expanding the area of medicinal plants and animal husbandry.

The impact of climate change on Gia Lai [1]

Variable climatic changes have resulted in regional temperature increases, rain, as well as more frequent floods and drought. The once cool climate in the Central Highlands is now comparable to the Central Coast region. Floods in 2009 and 2014 in Gia Lai flooded the Ba River bridge in An Khe town, roads, and caused loss of life and property. In recent years, dry rivers and streams attributed to prolonged drought have also seriously affected the locals' livelihoods. A 2016 drought destroyed thousands of hectares of coffee, pepper, rice, and other crops while overall yields were down. Increasing water scarcity has also harmed people's welfare with experiencing water stress.

[1] According to: https://baogialai.com.vn/channel/1624/201710/tay-nguyen-doi-mat-voi-bien-doi-khi-hau-5552444/

Climate change is having a particularly acute impact in the East and Southeast of the province. Landslides have along the Ba River have affected districts and towns in the province. For example, Krong Pa district, situated on the Ba River and Ia Rsai stream, often faces landslides which endanger lives, causeloss of residential land and productive land, as well as property. On the same river nearby, the town of Ayun Pa town also falls prey to landslides. The west bank of the Ayun River (Ayun Pa town) from the Ia Hiao stream to the foot of the Ben Mong bridge is notably the most dangerous area. Similarly, some areas along the abnks of Ia Sol river in Phu Thien district face regular soil erosion.

Activities to respond to climate change [2]

Below are some of the Gia Lai's policy documents related to climate change adaptation:

- Issue and implement the Action Plan to respond to climate change of Gia Lai province for the period 2011-2020 with a vision to 2030[3].
- Issue and implement the Implementation Plan of the Prime Minister's Decision No. 2053/QD-TTG dated October 28, 2016 promulgating the plan to implement the Paris Agreement on Climate Change in Gia Lai province.[4]
- Plan No. 2212/KH-UBND dated October 29, 2020 of the Provincial People's Committee to implement Decision No. 1055/QD-TTg dated July 20, 2020 of the Prime Minister on the promulgation of the national plan on responding to climate change in Gia Lai.
- Decision No. 202/QD-STNMT dated December 29, 2020 of the Department of Natural Resources and Environment approving the summary report updating the action plan to respond to climate change for the period 2021-2030, with a vision to 2050 in Gia Lai.
- Decision No. 203/QD-STNMT dated December 29, 20202 of the Department of Natural Resources and Environment approving the General Report on Climate Assessment of Gia Lai Province.

In addition, Gia Lai conducted 3 projects under the Target Program to Respond to Climate Change and Green Growth for the period 2016-2020, namely:

- Plei Tho Ga irrigation reservoir system project (Chu Don commune, Chu Pu district, Gia Lai province), which has a capacity of 10.54 million m3, an earth dam length of 484.1 m, total canal length of 10 km, is expected to be completed and put into use in 2021 following delays. The project is expected to providewater for domestic use Chu Don, Ia Blu and Nhon Hoa town as well as regulate the harsh climate in the Chu Pu district, stabilize production for 620 hectares of rice and create irrigation sources for 1,000 hectares of industrial crops combined with aquaculture in the lakebed.
- Tau Dau 2 reservoir project (Dak Po district, Gia Lai district) will ensure water supply for 555 hectares of cultivated land in the project area (150 hectares of wet rice for two crops and 405 hectares for flowers) while creating a water supply for domestic use for roughly 7,500 people.
- Pilot project on theinstallation of a public lighting system using solar energy for roads in the Pleiku city.

[2] for reference and integration into the analysis results of public investment in climate change in each locality
[3] Decision No. 836/QD-UBND dated December 16, 2011.
[4] Decision No. 738/QD-UBND, October 19, 2017.

2. Summary of Data on Climate Change Investment in Gia Lai

2.1 Budget sources for climate change investment

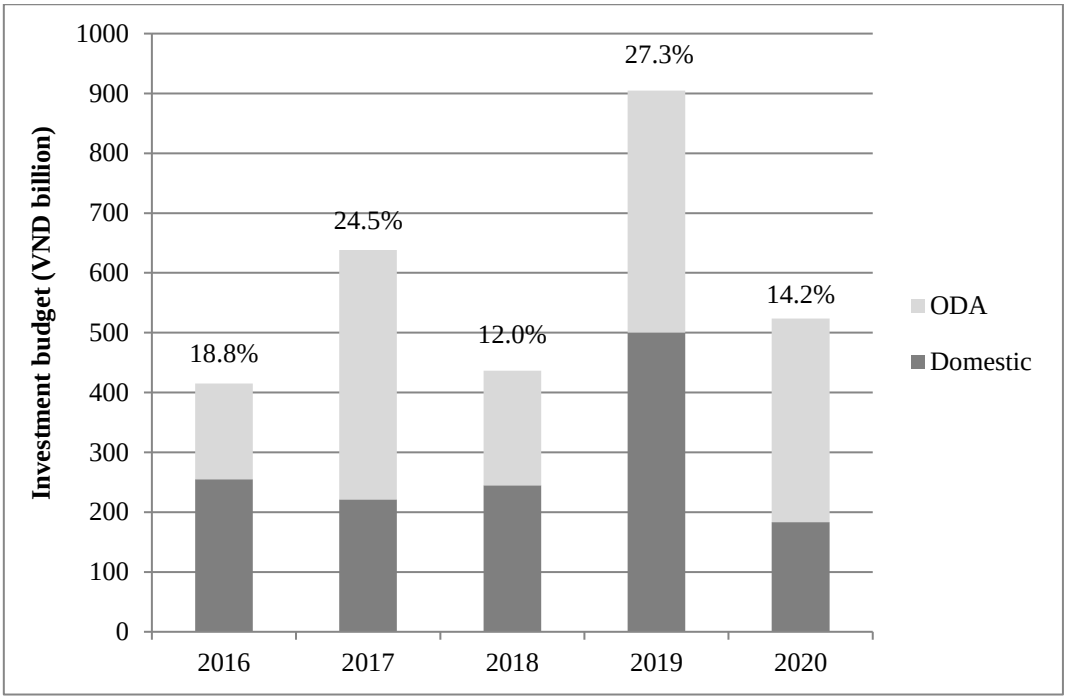


Figure 1: The total investment budget for climate change at Gia Lai *– the percentage that the climate change budget represents of the total Provincial development investment budget is shown as a % on the top of each bar.*

Table 1: Investment for climate change in Gia Lai 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	255.2	159.7	414.9	61.5	38.5	2,210.7	18.8
2017	221.2	417.1	638.3	34.7	65.3	2,603.8	24.5
2018	245.0	191.7	436.6	56.1	43.9	3,648.5	12.0
2019	500.2	404.6	904.7	55.3	44.7	3,312.5	27.3
2020	183.2	340.5	523.7	35.0	65.0	3,676.2	14.2

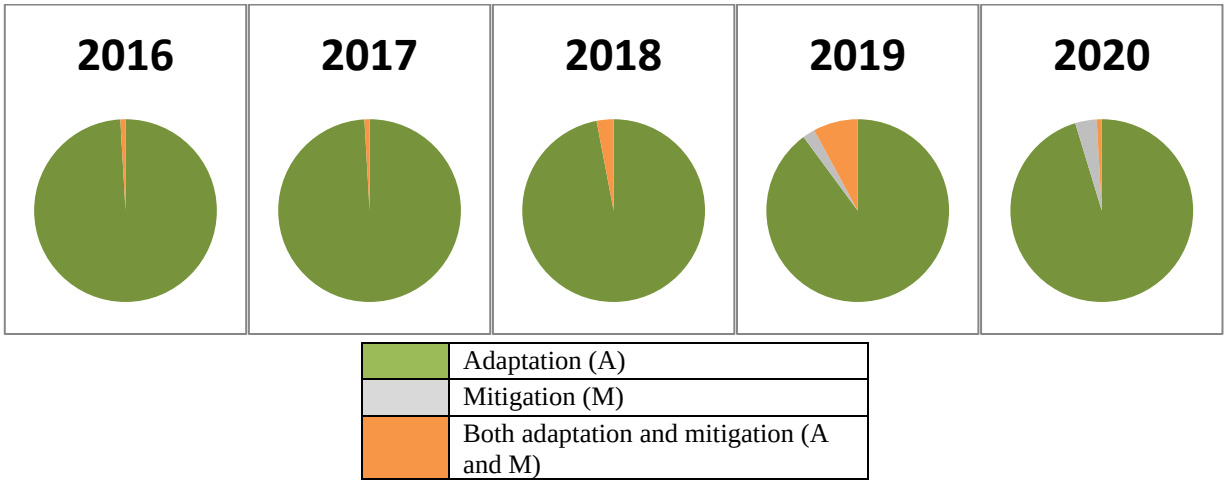
In Gia Lai province, the average investment for climate change period 2016-2020 is estimated at VND 584 billion/year. The climate investment budget was highest in 2019 (VND 904.7 billion) and lowest in 2016, the year when the medium-term plan starts (VND 414.9 billion).

In the 2016-2020 period, the average annual domestic expenditure on climate change was VND 281 billion, accounting for 48.1% of the total investment expenditure, ODA contributed about VND 303 billion, accounting for 51.9%. The proportion of ODA investment has been variable, with 38.5% in 2016 and 65.0% in 2020.

The ratio of investment spending on climate change to total development investment expenditures of the whole province varied from 12% to 27%, or an average of 19% for the whole study period.

2.2 Purpose of the investment budget for climate change

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

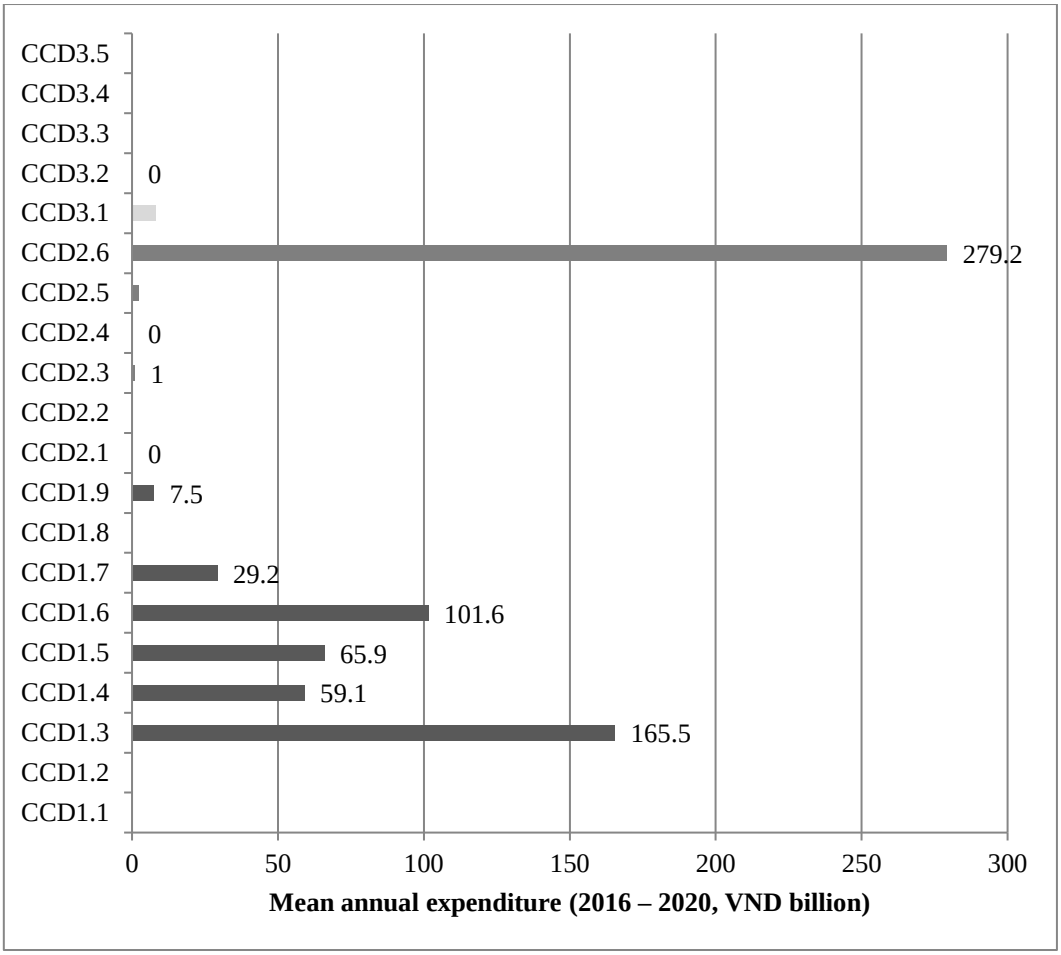


Detailed investment data for climate change adaptation and mitigation

Billion Dongs/%	2016		2017		2018		2019		2020	
Adaptation (A)	411.2	99.1%	632.3	99.1%	423.3	97.0%	812.0	89.9%	498.8	95.3%
Mitigation (M)	-	0.0%	-	0.0%	-	0.0%	20.0	2.2%	20.0	3.8%
Both adaptation and mitigation (A and M)	3.7	0.9%	6.0	0.9%	13.3	3.0%	71.7	7.9%	4.9	0.9%

In Gia Lai, more than 95% of investment projects related to climate change are dedicated toadaptation.Both in 2019 and 2020, there were few mitigation projects with a total investment of about VND 40 billion. iSeveral multi-purpose projects, both contributing to mitigation and climate change adaptation, were implemented in the research period, with a total investment of nearly VND 100 billion. One notable example is the development of forest management boards in South Song Ba, Ha Na, Bac Bien Ho, and Northeast Chu Pah as well as forest protection. Mentioned above, another mitigation project is a pilot project to install a solar light system for roads in Pleiku city, Gia Lai province under the Green Growth program.

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



Investment projects to respond to climate change locally, most notably the CCD 2.6 ((Enhancing disaster risk reduction) attained investments of over VND 279 billion/year, accounting for nearly 40% of investment expenditures. The project objectives mainly focused on settling and stabilizing the population, limiting free migration, or poverty reduction projects for people in the Central Highlands. In addition, other related investment sectors included:

- CCD 1.3 (Irrigation: investment VND 165.5 billion/year, accounting for 23.0%),
- CCD 1.6 (Rural development and food security: VND 101.6 billion/year, accounting for 14.1%),
- CCD 1.5 (Water quality and supply: VND 65.9 billion/year, accounting for 9.2%),
- CCD 1.4 (Dyke and river protection embankment: VND 59.1 billion/year; accounting for 8.2%)
- CCD 1.7 (Forest development: VND 29.2 billion, accounting for 4.1%) and
- The remaining fields are scattered locally with small investment, from 1 billion to 8 billion / year, see the table below for details.

Regarding policies for responding to climate change and green growth, the Provincial People's Committee issued and implemented: National target program to respond to climate change (NTP-RCC), the Action Plan to respond to climate change (CCAP), and the Plan for Implementation of Paris Agreement (PIPA). Several fields indicated above were mentioned in PIPA, in accordance with local policy. However, there is no localized Climate Change Action Plan (CCAP) and Green Growth Action Plan (GGAP) available to check whether that was also clear after issuing of the National Climate Change Strategy (NCCS) and Vietnam Green Growth Strategy (VGGS).

2.3 Budget expenditure from ODA

Here are the 5 (five) biggest ODA projects for climate change (Project name, funding source, investment period, share of total ODA investment):

1. Irrigation System Plei Tho Ga Reservoir, Chu Pu District (NTP for Climate Change and Green Growth) (2016-2021, 7.4%)
2. Construction of Tau Dau 2 water reservoir in Dak Po district (NTP to respond to climate change and Green Growth) (2016-2021, 6.7%)
3. 14 Programs on Outcome-based Rural Water Supply and Sanitation Scaling in 21 provinces in the mountainous regions (2016-2023, 5.7%)
4. Project to develop rural infrastructure for production in Central Highlands provinces (2016-2020, 5.5%)
5. Project of sustainable agricultural transformation in Gia Lai province (VNSAT) (2016-2020, 5.2%)

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	X
Plan for Implementation of Paris Agreement	√
Others: none	