

Vietnam's Carbon Curve: Impact of PDP VII and Forecast to 2030

2 Fast 2 Curious

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Presented by 2 Fast 2 Curious

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Vietnam

Vietnam is a rapidly developing country in Southeast Asia, known for its dynamic economy, growing industrial base, and increasing global integration.

The background image is a photograph of a traditional Vietnamese town, likely Hoi An, featuring a river with several boats and people wearing conical hats. The image is overlaid with a dark green semi-transparent filter. The word "Vietnam" is centered in a large, white, sans-serif font.

Vietnam

To meet this demand, the government launched Power Development Plans.

The background image is a dark, monochromatic photograph of a traditional Vietnamese street scene. It features a narrow waterway with a small boat in the center, flanked by traditional wooden buildings with tiled roofs. The scene is reflected in the water, and the overall tone is somber and historical.

Purpose

In this presentation, we will look at how Vietnam's carbon emissions have changed over time. Our goal is to examine how PDP VII shaped that curve and what this means for Vietnam's path to 2030.

Power Development Plan VII?

Power Development Plan VII (PDP VII) was implemented in 2011 as Vietnam's national roadmap to guide electricity planning from 2011 to 2020, with a vision to 2030.

Its main goals were to:

Ensure stable electricity supply.

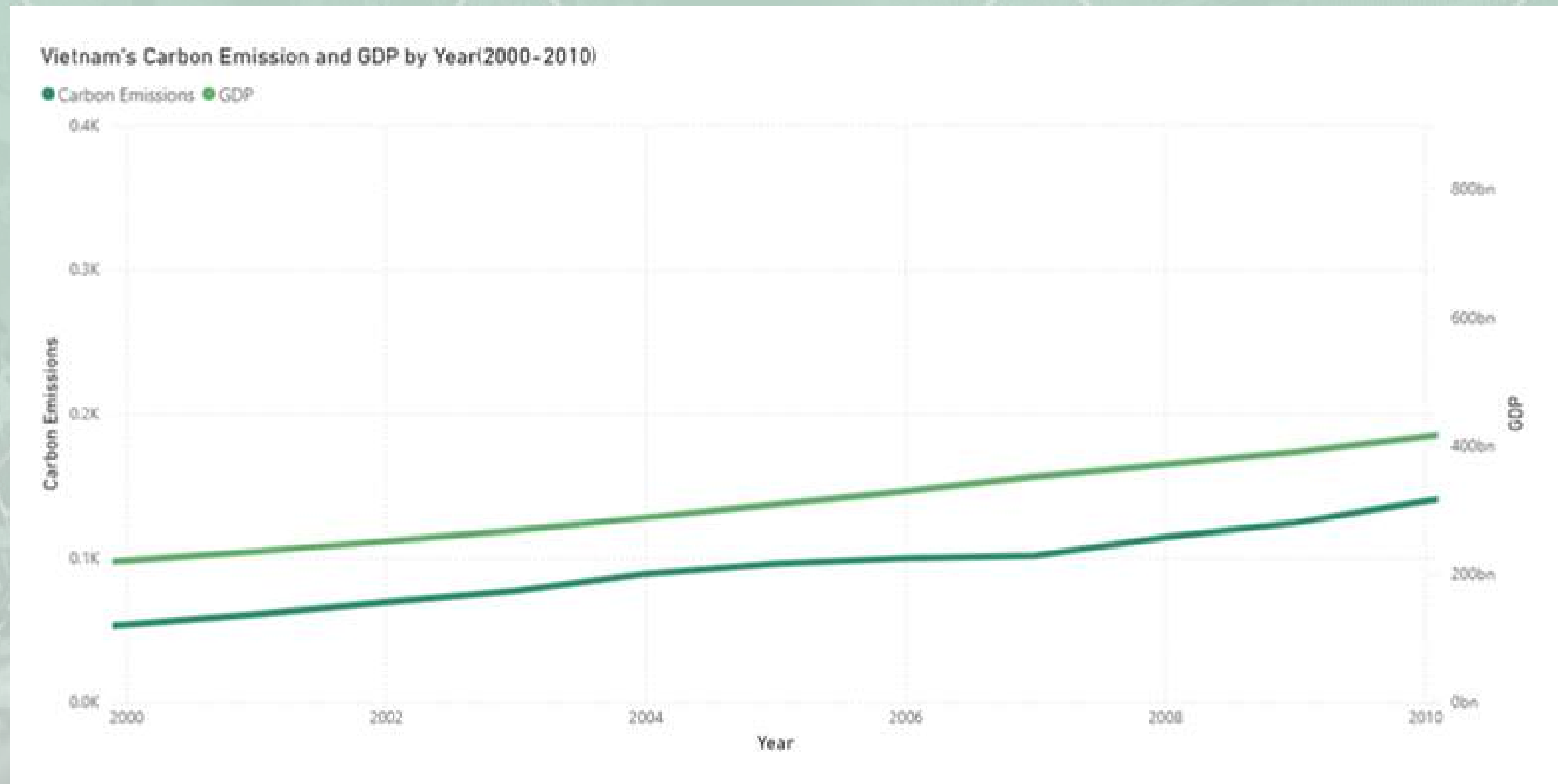
Expand coal-fired power plants.

Introduce renewable energy, but only as a small portion of the energy mix.



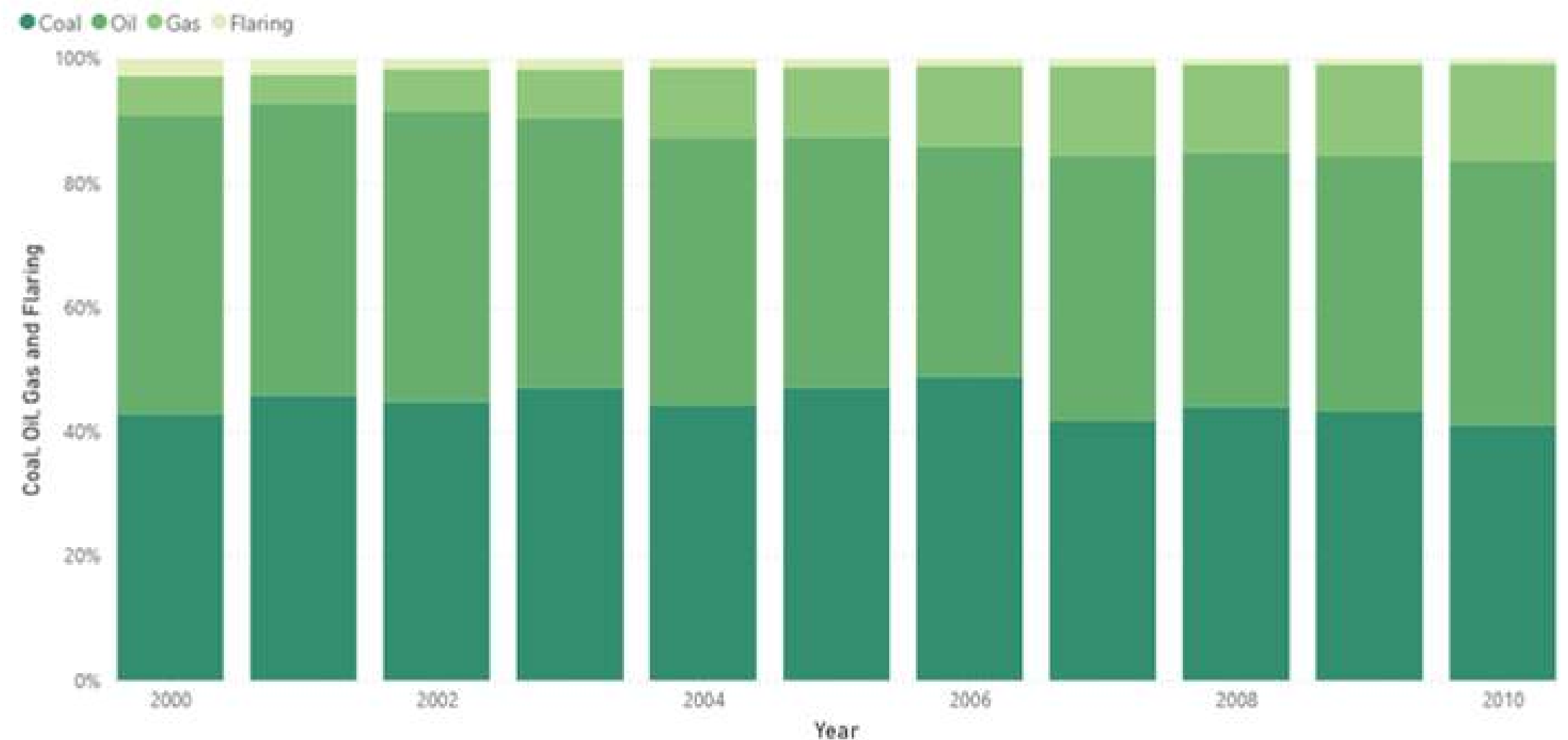
Setting the Baseline: Vietnam Before PDP VII

Carbon emission vs GDP (2000 to 2010)

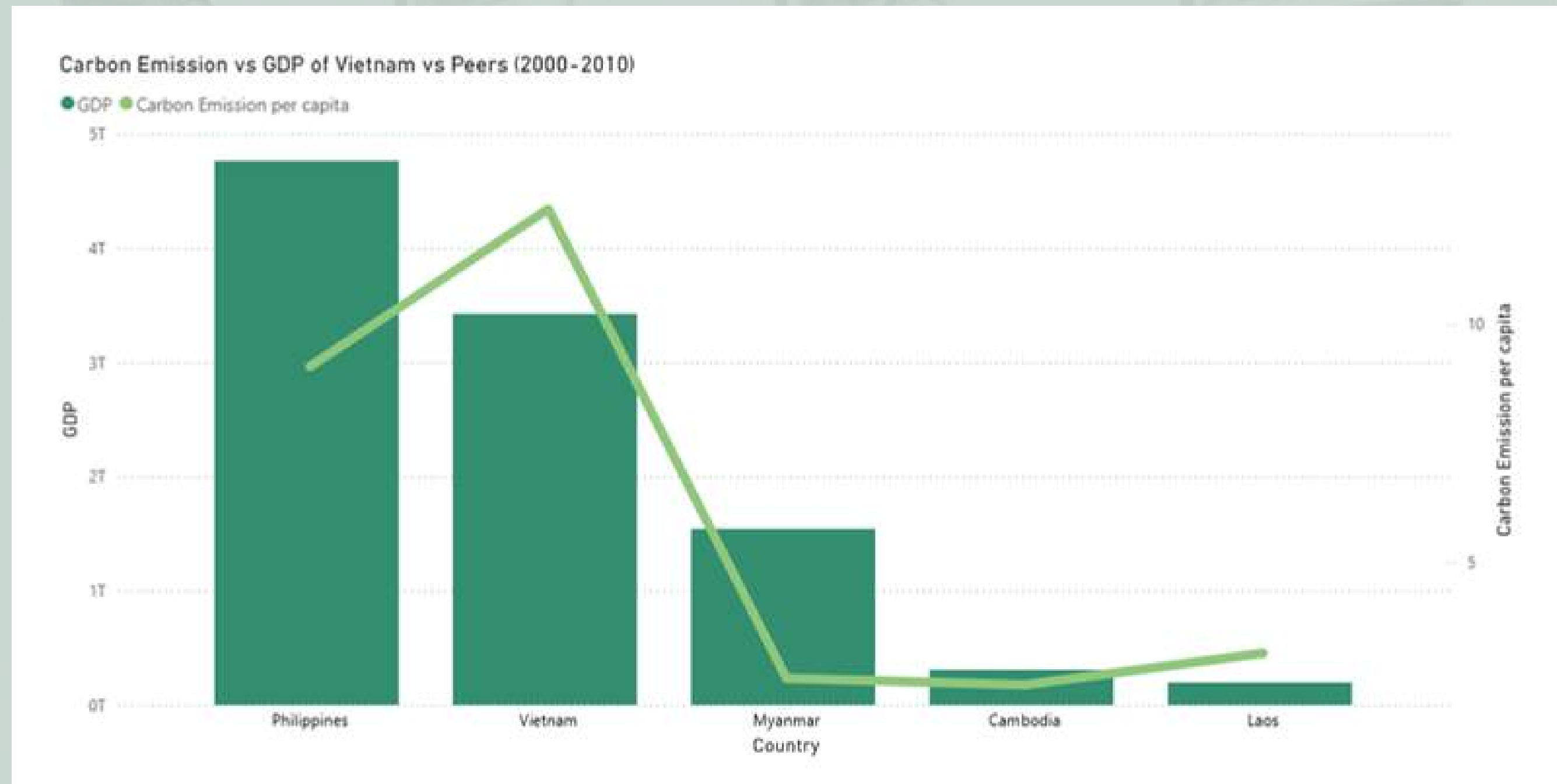


What was Vietnam's energy mix before PDP VII?

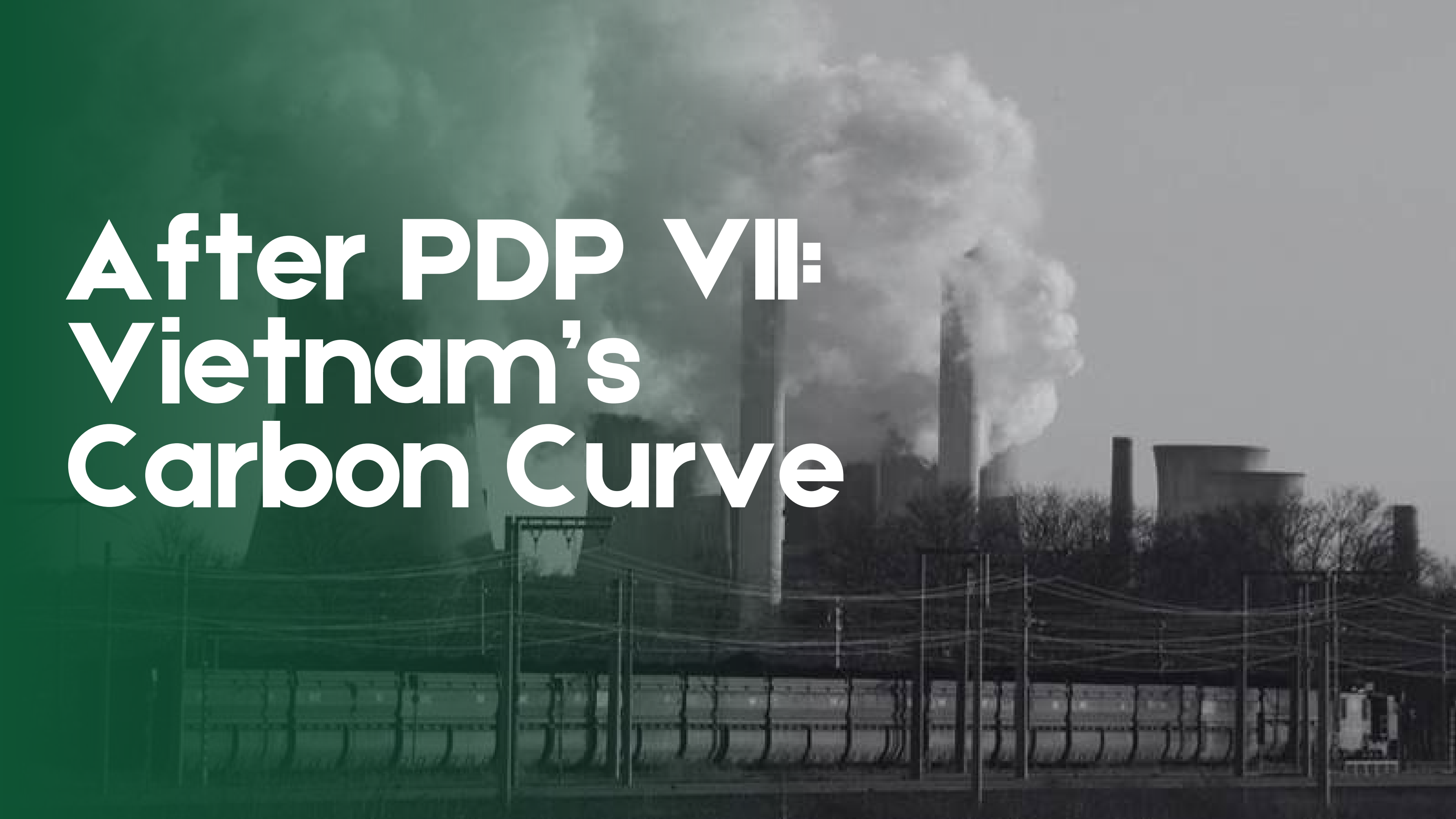
Vietnam's Energy Mix (2000-2010)



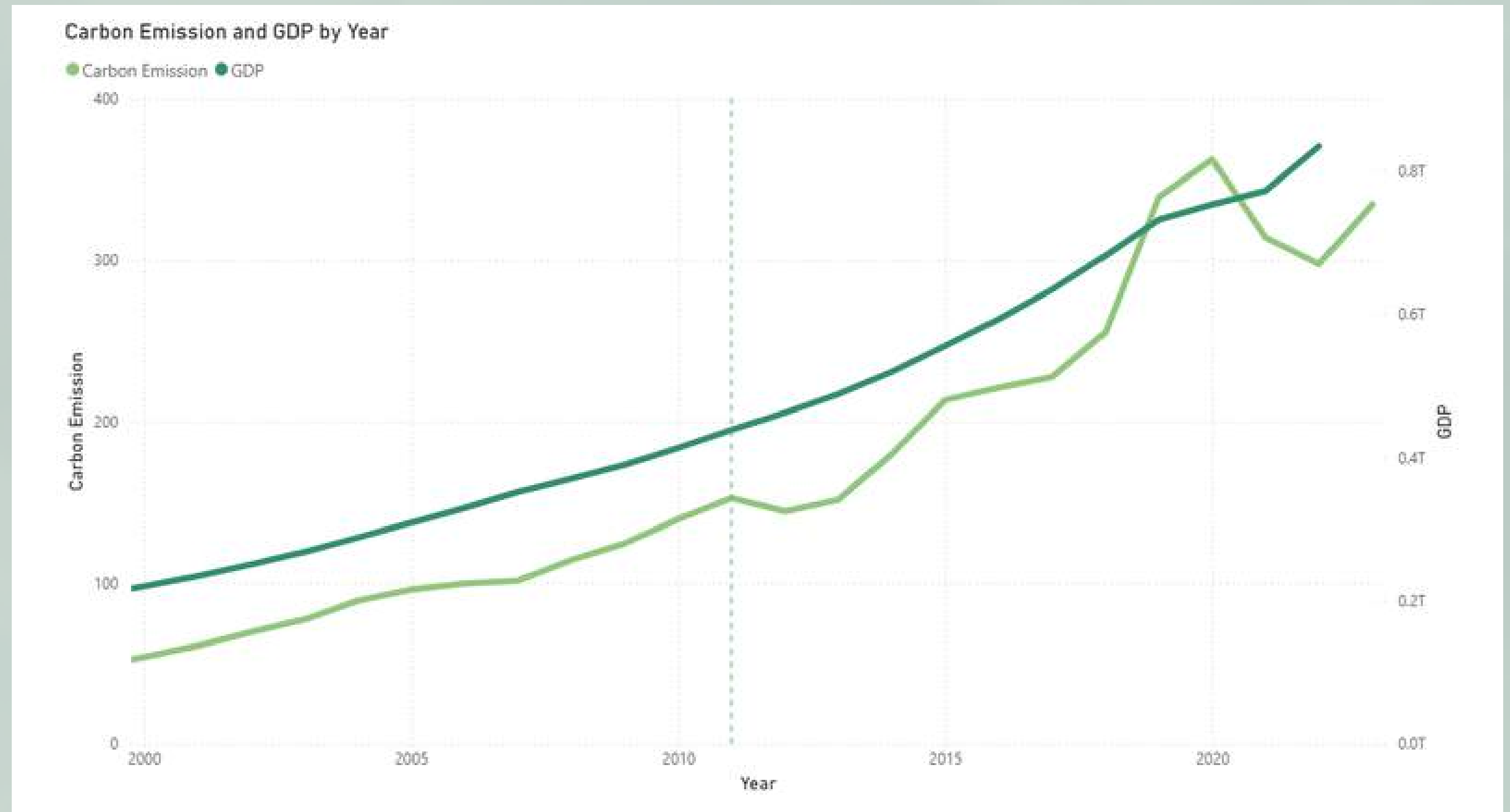
Economic Output and Emissions of Vietnam vs Regional Peers : Pre PDP VII



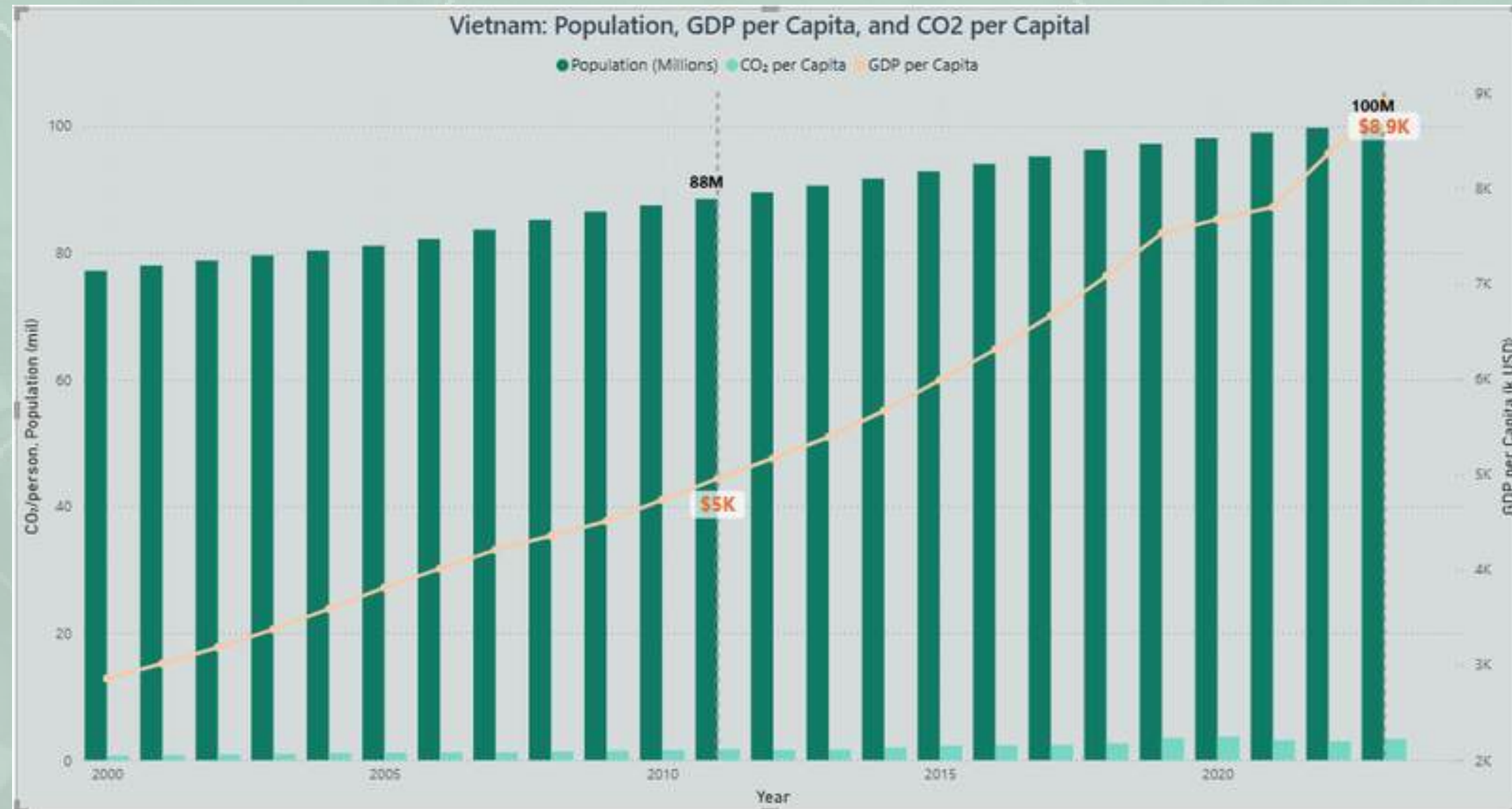
After PDP VII: Vietnam's Carbon Curve



How has
Vietnam's
emissions
efficiency
changed
over time
relative to
economic
growth?



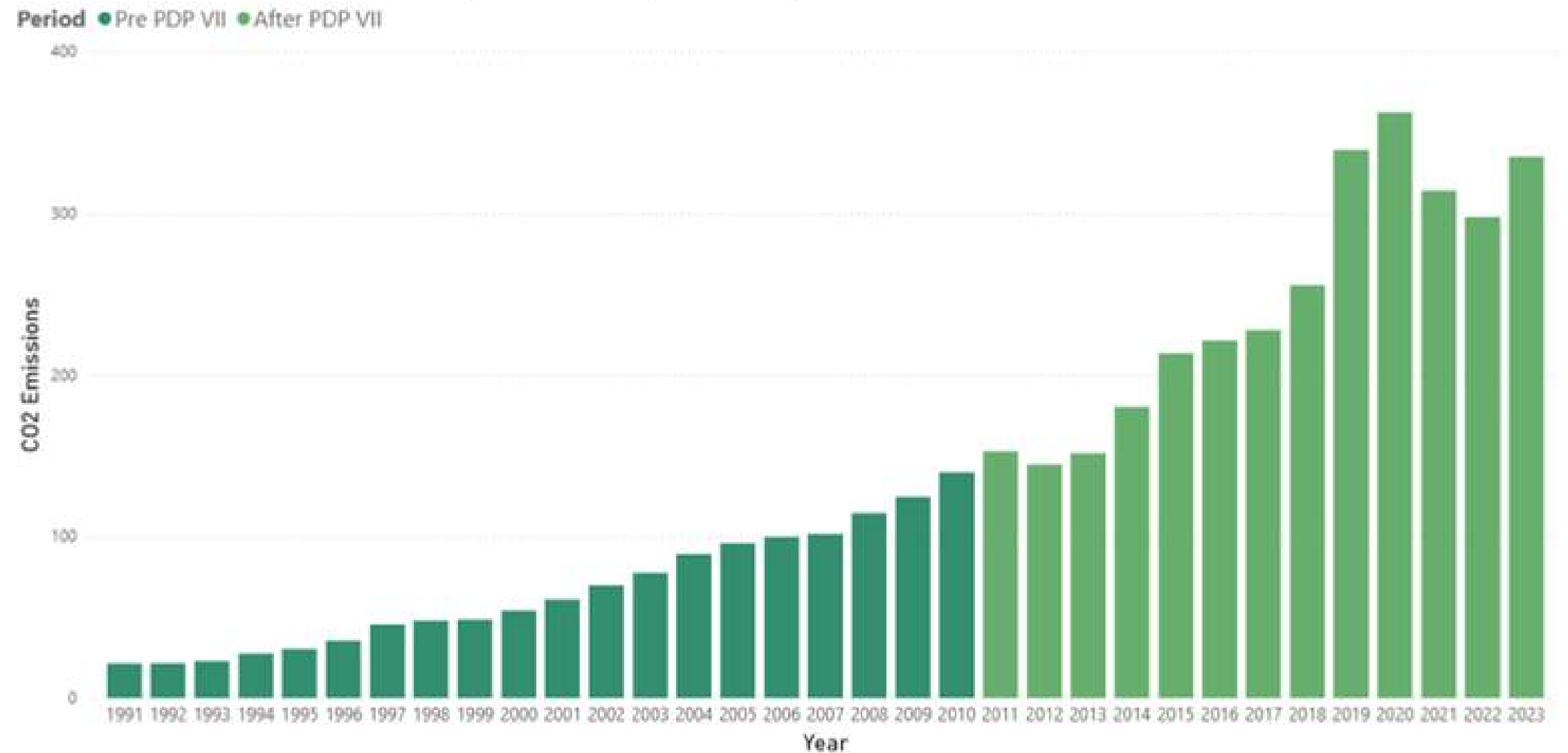
How are population growth, GDP per capita, and CO₂ emissions per capita interconnected in Vietnam?



Population grew from ~78M to ~100M, reflecting steady demographic expansion. GDP per capita rose from ~\$4,9K to ~\$8,9K signaling rapid economic development. CO₂ emissions per capita increased, highlighting the environmental cost of growth

How did Vietnam's carbon emission patterns change following the introduction of PDP VII?

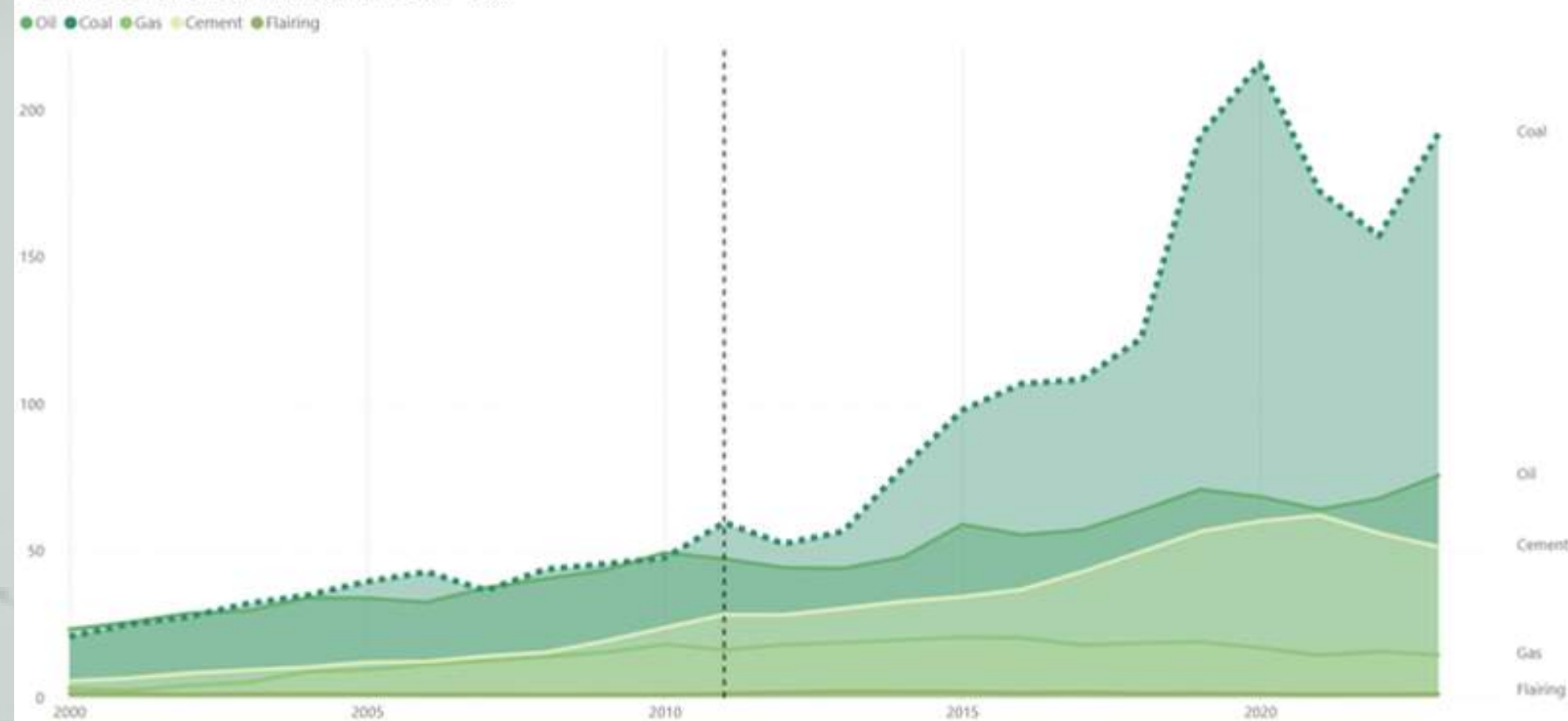
How did Vietnam's carbon emission patterns change following the introduction of PDP VII?



Vietnam's carbon emissions rose sharply following the introduction of PDP VII in 2011, coinciding with the country's increased reliance on fossil fuels, particularly coal, as part of its energy development strategy.

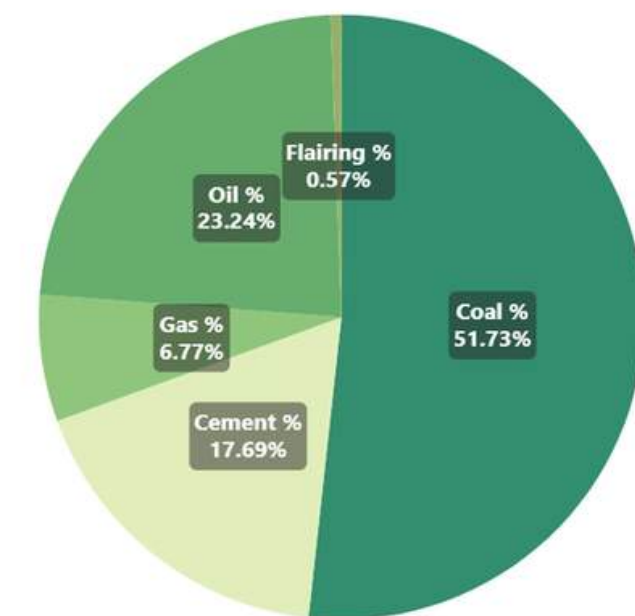
How Vietnam's CO₂ Emission Sources Changed Before and After PDP VII?

Vietnam's CO₂ emissions Mix trend from 2000 - 2023



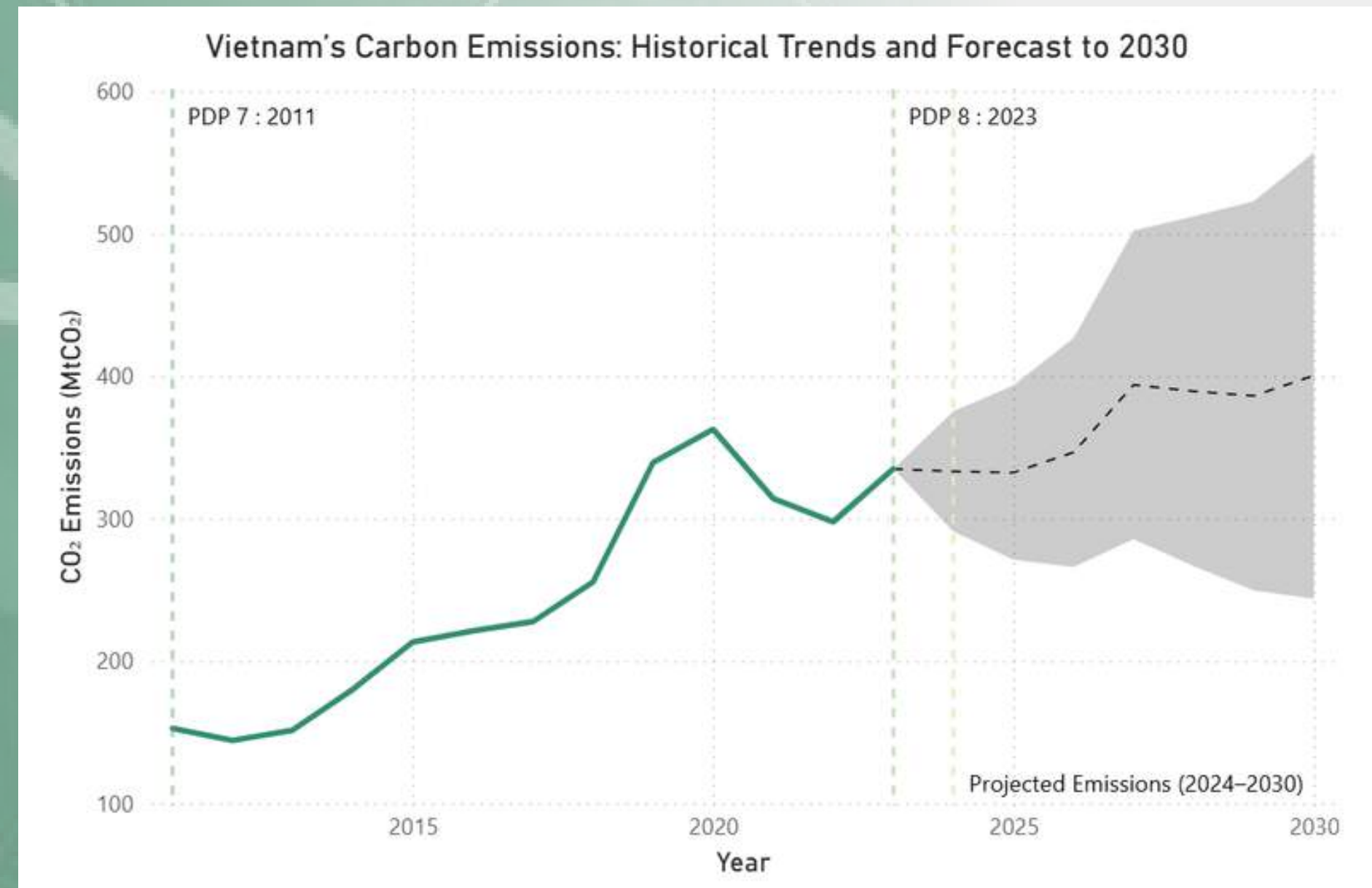
Vietnam's rapid Co2 emission growth after the PDP VII.

Vietnam's Co2 Emission Mix Contribution (2013-2023)



Coal is the dominant source of emissions, accounting for 51.73 % of CO₂ emissions. After the implementation of PDP VII, coal emissions have continued to rise over the years.

What are the projected carbon emission levels for Vietnam by 2030 under current energy plans?



Emissions rose sharply after PDP VII, driven by coal. Without stronger intervention, emissions may continue to grow under PDP VIII.

CONCLUSION

- Emissions rose sharply after PDP VII due to coal expansion
- GDP grew, but carbon efficiency lagged behind
- Per capita emissions increased, driven by industrial growth
- Coal became the top emission source
- Emissions may exceed 500 million metric tons by 2030
- Vietnam must shift to cleaner energy to meet climate goals

How Can Vietnam Cut Carbon Without Slowing Growth?

- Limit New Coal Plant Approvals
- Set a 30% Renewable Energy Target
- Mandate Energy Audits in Industry
- Launch a National EV Program
- Enforce PDP VIII with Clear Targets
- Total Emission Reduction Impact

The background is a photograph of a traditional Chinese building with a person walking in the foreground. The building has a grey, textured wall and a wooden door. Above the door is a decorative lintel with Chinese characters. To the right of the door is a vertical decorative element. The person in the foreground is wearing a light-colored shirt, dark pants, and a traditional conical hat. The entire image is overlaid with a semi-transparent green filter.

Thank You!