



Commit Fully to Achieving the Goal of Net-zero Greenhouse Gas Emissions

13 CLIMATE
ACTION



OVERVIEW

NIDA is committed to achieving its goal of net-zero greenhouse gas emissions through its energy conservation policy and net-zero greenhouse gas emission policy, operated by an appointed working committee who also communicates these initiatives to the community. NIDA has set its target to achieve net-zero emissions by 2027. To reach this goal, it is promoting cooperation in addressing the impacts of climate change resulting from the institute's own activities. It is also encouraging the reduction of greenhouse gas emissions by limiting fuel use under Scope 1 to 17.93 tCO₂eq, electricity uses under Scope 2 to 4,105.18 tCO₂eq, and tap water use under Scope 3 to 45.72 tCO₂eq.

OPERATION

NIDA Smart Compact City Excellence Center



The NIDA Smart Compact City Center (NIDA S2C^o) is the driving force behind the “NIDA Smart City” initiative, promoting sustainable development at organizational, community, and national levels. It integrates technology to optimize resource management across eight key areas: Smart Energy, Smart Mobility, Smart Community, Smart Environment, Smart Building, Smart Governance, Smart Economy, and Smart Innovation. For example, Smart Energy initiatives include the installation of LED lighting to reduce energy consumption in classrooms and offices, and the promotion of low-carbon energy by installing solar panels on the Ratchaphruek and Malai Huawanan buildings with plans to install solar panels in all buildings in the future. Moreover, small wind turbines have been installed at the Malai Huawanan building.

Under Smart Mobility, NIDA has partnered with Metropolitan Energy Co., Ltd. to establish an EV Charging Station named “EV Anywhere,” with four service points located in front of the Navamindradhiraj building. The institute also plans to implement a Smart Parking System to monitor parking spaces and enhance security on campus. In terms of Smart Building, systems such as Face Recognition, Visitor Management, CO₂ detection, and PM 2.5 monitoring have been installed to improve building safety and management.



ENGAGEMENTS

Co-creating sustainable urban development & raising environmental awareness

NIDA has actively engaged in projects to develop area-specific smart city plans and sustainable management approaches. One initiative is “Co-create Better Bangkok #1,” which aims to present progress on the urban development of the Bang Kapi area. It includes architectural designs for improving Klong Chan Botanical Gardens, creating networks to restore accessible public spaces across six districts, and presenting draft plans for the development of a smart city in the Bang Kapi area. In the meantime, feedback on these drafted plans is welcome to facilitate continuous improvement and community-driven development.

Furthermore, NIDA is working on creating sustainable smart city plans for mid-sized cities in Bangkok, specifically focusing on a 4-square-kilometer area of Bang Kapi city center. This initiative involves the Quadruple Helix Model, including government, business, citizens, and academia, to expand BangKapi's urban landscape, making it accessible for everyone, including vulnerable groups, thereby transforming the city into a sustainable urban community.

NIDA has also developed projects to promote environmental awareness in collaboration with local communities, organizations, and NGOs. An example is the “Environmental Policy and Disaster Management in the 2023 Election” forum, organized on April 20, 2023, in cooperation with Future Earth THAILAND. The forum aimed to enhance knowledge about disaster management within communities, raise awareness about political party policies on disaster preparedness, and increase the accountability of political institutions towards community disaster management.

TEACHING & LEARNING

Climate change education

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COMMUNITY OUTREACH/ ENGAGEMENT

Advancing net-zero, circular economy & sustainable urban development

NIDA has been advising on the “**Provincial Greenhouse Gas Reduction Approaches to Achieve Net Zero GHG Emissions**” project, supporting 12 provinces in setting goals for carbon neutrality or net-zero greenhouse gas emission. This project involves developing measures to reduce emissions and creating plans to achieve carbon neutrality or net-zero goals, along with preparing business models to support these measures. Another initiative is promoting circular economy practices for used packaging through the “Green Coffee Shop” initiative, encouraging eco-friendly production, service, and consumption. This initiative also involves partnerships with businesses to foster a shift towards sustainable resource use, in alignment with Thailand's Net Zero 2065 target.

Furthermore, the “**Green Hotel Business under Carbon Neutrality**” project examines the potential, limitations, and gaps in green hotel business practices under carbon neutrality via studies conducted in Koh Samui and Phuket. The aim is to promote environmental education measures through training programs to enhance the knowledge and skills of hotel staff, enabling them to perform environmentally friendly tasks across all service departments. The Climate Action Plan, shared with local governments and communities, involves training personnel to support the development of green hotel businesses under carbon neutrality.

In the industrial sector, NIDA supports the **Climate Action Plan** by advising on eco-industrial town development. This involves creating integrative development plans for Thailand's urban eco-industrial sector, with support from the United Nations Industrial Development Organization (UNIDO) under the Global Environment Facility fund. The plan titled “Provision of Services for Developing an Action Plan for Selected Alternatives to Integrate the Mobilization of Eco- Industrial Development (Eco-Industrial Town)” is a collaboration among the Global Environment Facility, UNIDO, and Thailand's Department of Industrial Works under the Ministry of Industry.

The institute is also involved in projects like **improving bicycle paths** around the Lat Phrao 71 MRT station, as part of the Bangkok Master Plan for Walking and Cycling. NIDA collaborates with the Foundation for Sustainable Urban and Community Development, the Thai Walking and Cycling Institute, and the Bangkok Metropolitan Traffic and Transportation Department to study issues and design non-motorized travel routes, promoting public participation and refining the city's master plan.

Academic discussion “**Learning from the U.S. Clean Air Act**” at the NIDA Academic Forum in which issues and suggestions were presented regarding the drafting of the Clean Air Act for Thailand. The discussion raised awareness of the root causes of air pollution problems and guidelines for Thailand's air quality management.



NIDA's Alumni Association has initiated projects to restore natural balance and reduce natural disasters, such as the “**Proud to be NIDA**” project, which encourages over 80,000 alumni across the country to participate in planting at least 99,999 Cassia fistula trees nationwide, in collaboration with government agencies and local communities.