



University : Nakhon Ratchasima Rajabhat University
Country : Thailand
Web Address : Nakhon Ratchasima Rajabhat University (nrru.ac.th)

[2] Energy and Climate Change (EC)

[2.14] Impactful university program(s) on climate change

1. Low -carbon energy use

Total electrical energy used in the year 2022 of 5,439,960.00 kilowatt-hours.

Total energy used from low-carbon energy sources totals 28,966 kilowatt-hours.

Student Dormitory 2 has installed a battery-free solar power generation system with a capacity of not less than 17 kW to connect to the normal electrical system. In 2022, it can produce 24,236 kilowatt-hours of electricity.

30 W LED solar street lamps for walking paths at night in 2022 can produce 4,730 kilowatt-hours of electricity.

2. Local education programmed on climate.

The university offers courses related to environmental studies, such as bachelor's degrees. It contains courses in environmental science and technology. Environmental health course Geoinformatics course and the graduate level consists of Environmental management technology course. This course is a course that focuses on studying environmental impacts the local environmental management and national level in the past, students have done a lot of research related to the environment, such as studying the effects of the environment climate change carbon sequestration by forests and agriculture low carbon society, waste management, land use, etc. In addition, academic services are provided to local areas in training and transfer of technology related to the environment to local agencies both the public and private sectors. In 2022, there are research studies related to impacts and warnings from climate change, including:

1. THE IMPACT FROM ECOSYSTEM CHANGE, CHANGE THE WAY OF LIFE IN THE COMMUNITY LIFESTYLE AND MAKE USE OF BIODIVERSITY AT PAK MOON WETLANDS UBON RATCHATHANI PROVINCE

<https://doi.nrct.go.th//ListDoi/listDetail?Resolve DOI=10.14456/nrru-rdi.2021.31>

2. Effects of Nanoscale Zero-Valent Iron on Soil-Leaching of Trinitrotoluene Contaminated Soil in Acid Rain Conditions

[Effects of Nanoscale Zero-Valent Iron on Soil-Leaching of Trinitrotoluene Contaminated Soil in Acid Rain Conditions | Scientific.Net](#)

The environmental science and technology program and environmental management technology courses in 2022. University researchers received a research grant from the Science Promotion Fund. Research and Innovation (NRCT) Fundamental Fund types as follows:

1. Environmental management innovation to create added value from natural resources and local wisdom for the development of the grassroots economy in the Ban Nong Sakae community forest, Dan Chak Subdistrict, Non Thai District, Nakhon Ratchasima Province.

2. Biological diversity and its use for grassroots economic development In the Ban Nong Sakae Community Forest, Dan Chak Subdistrict, Non Thai District, Nakhon Ratchasima Province.



3. Analysis of the carbon storage potential in woody peach biomass to promote the development of clean development mechanism projects: a case study of Ban Nong Sakae community forest, Dan Chak Subdistrict, Non Thai District, Nakhon Ratchasima Province.

4. Innovation for restoring forests and creating food security for communities with mycorrhizal fungi and actinomycete bacteria in the Ban Nong Sakae community forest, Dan Chak Subdistrict, Non Thai District, Nakhon Ratchasima Province.

5. Evaluating the value of ecosystem services for the development of the grassroots economy in the Ban Nong Sakae Community Forest, Dan Chak Subdistrict, Non Thai District, Nakhon Ratchasima Province.

6. Eco-city development through the participation process of people in the area of Kutchik Subdistrict Municipality, Sung Noen District, Nakhon Ratchasima Province.

7. Potential for eco-city development in the area of Kutchik Subdistrict Municipality, Sung Noen District. Nakhon Ratchasima Province

8. Study of greenhouse gas emissions in the area of Kutchik Subdistrict Municipality, Sung Noen District, Nakhon Ratchasima Province.

9. Public participation in the development of eco-city in the area of Kutchik Subdistrict Municipality, Sung Noen District, Nakhon Ratchasima Province.

<https://drive.google.com/file/d/10eZCUucPjRtQKyv3jfEJXdeB7Cajzgg/view?usp=sharing>

The university has a climate action plan and distributes it to local government and local community groups. NRRU are involved in cooperation for climate change disasters with local authorities and Nakhon Ratchasima Province. Through research projects as follows:

1. Environmental management innovation to create added value from natural resources and local wisdom for the development of the grassroots economy in the Ban Nong Sakae community forest, Dan Chak Subdistrict, Non Thai District, Nakhon Ratchasima Province.

2. Biological diversity and its use for grassroots economic development in the Ban Nong Sakae Community Forest, Dan Chak Subdistrict, Non Thai District, Nakhon Ratchasima Province.

3. Analysis of the carbon storage potential in woody peach biomass to promote the development of clean development mechanism projects: a case study of Ban Nong Sakae community forest, Dan Chak Subdistrict, Non Thai District, Nakhon Ratchasima Province.

4. Innovation for restoring forests and creating food security for communities with mycorrhizal fungi and actinomycete bacteria in the Ban Nong Sakae community forest, Dan Chak Subdistrict, Non Thai District, Nakhon Ratchasima Province.

5. Evaluating the value of ecosystem services for the development of the grassroots economy in the Ban Nong Sakae Community Forest, Dan Chak Subdistrict, Non Thai District, Nakhon Ratchasima Province.

6. Eco-city development through the participation process of people in the area of Kutchik Subdistrict Municipality, Sung Noen District, Nakhon Ratchasima Province.

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8. Study of greenhouse gas emissions in the area of Kutchik Subdistrict Municipality, Sung Noen District, Nakhon Ratchasima Province.

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Academic services of the NRRU which has the Nakhon Ratchasima Provincial Education and Development Center, It is an agency driven by the period 2023-2024, which has carried out research projects in collaboration with local administrative organizations in the matter of the circular economy development to reduce social inequality in small local administrative organizations with a participatory learning process from the promotion and development of the network of organic agriculture 5 good ways of Korat people.

<https://thainews.prd.go.th/th/news/detail/TCATG230904230444795>

The university is committed to being a university that reduces net carbon dioxide emissions into the atmosphere. A memorandum of understanding was signed for the use of the building and premises of the data and information management center for the rehabilitation of the Northeastern watershed forests at the Pa Nong Teng-Chakkarat National Forest Reserve, Chaloem Phra Kriathi District Nakhon Ratchasima Province and Nakhon Ratchasima Forestry Center Under the Forest Resource Management Office No. 8, Nakhon Ratchasima, Royal Forest Department, for teaching and learning support knowledge transfer training develop the potential of conservationist networks and conducting research on forest ecology and the environment.

<https://drive.google.com/file/d/1IORv0qLIPYv0mbzWrFUul-ilyp8n8H6B/view?usp=sharing>