Youth Connect

Youth Community Resilience to Climate Change in the Mekong Delta (Y-CoRe)

Urban Heat

Project background

The project was conducted to assess the impact of extreme heat on specific population groups (the elderly, outdoor workers, and indoor workers) in Can Tho City, between July and August 2023. A total of 240 people from the three target groups living in areas affected by urban heat islands were interviewed.

Project objectives

The project aimed to evaluate the effects of extreme heat on each specific group. Additionally, it sought to collect data on people's acceptance of and interest in implementing household urban agriculture models.

Through surveys, residents could become more aware of the impact of extreme heat, providing a foundation for future projects to introduce models that help reduce temperatures in areas affected by urban heat islands.

Project overview

The research involved calculating the Land Surface Temperature (LST) of Can Tho City to estimate the Urban Heat Island (UHI) effect and identify affected areas for interviews. Once these areas were determined, interviews were conducted with participants on the following topics:

- personal information of survey participants (especially their living area and occupation)
- whether the interviewees have pre-existing health conditions
- whether they are aware of the urban heat island issue and urban agriculture
- how heatwaves affect their health
- whether they view extreme heat as an urgent problem needing immediate attention

- the role and perceived benefits of greenery in their neighbourhoods
- the feasibility of the proposed heat mitigation measures suggested by the research team.

Outstanding outcomes

Based on the interviews, 61.3 per cent of respondents stated that heatwaves have become a pressing issue that needs to be addressed. Most people reported health impacts from extreme heat, including dehydration, heatstroke, mental stress, fatigue, and discomfort. Other common symptoms included increased heart rate and respiration, skin swelling and irritation, and a risk of fainting. Among the three groups studied, indoor workers were the least affected by heat, primarily because most of them were between 20 and 50 years old and did not have underlying health conditions. Moreover, they were not directly exposed to heat.

Most participants agreed that planting trees benefits both the environment and their personal health. Encouragingly, some individuals were already managing greenery around their homes. However, many areas still had low or even no tree coverage.

The study also explored public opinion on implementing green measures to reduce the impact of heat. Among the suggested actions, indoor tree planting was rated the most feasible, with 45.23 per cent of respondents indicating a willingness to plant trees at home. The majority of these respondents were indoor workers. Those who disagreed mainly cited limited living space or lack of time for plant care. This study offers deeper insights into the current impact of heatwaves on residents and their acceptance of green solutions.

Team member's information

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