The SDG Accord

The University and College Sector's Collective Response to the Global Goals



國立成功力學 National Cheng Kung University



SDG Accord Case Study

Integration of SDGs in

- □ Institutional governance/strategic level
- \Box SDGs in research
- \Box SDGs in campus operations
- $\hfill\square$ SDGs in curriculum development
- \boxtimes SDGs in student engagement activities
- $\hfill\square$ SDGs into community activities
- $\hfill\square$ SDGs at a whole-institution level

Focus on

- □ Goal 1 No poverty
- □ Goal 2 Zero hunger
- \boxtimes Goal 3 Good health and wellbeing
- ⊠ Goal 4 Quality education
- □ Goal 5 Gender equality
- $\hfill\square$ Goal 6 Clean water and sanitation
- □ Goal 7 Affordable and clean energy
- □ Goal 8 Decent work and economic growth
- ☑ Goal 9 Industry, innovation and infrastructure
- □ Goal 10 Reduced inequalities
- ☑ Goal 11 Sustainable cities and communities
- $\hfill\square$ Goal 12 Responsible consumption and production
- □ Goal 13 Climate action
- □ Goal 14 Life below water
- $\hfill\square$ Goal 15 Life on land
- □ Goal 16 Peace, justice and strong institutions
- \boxtimes Goal 17 Partnerships for the goals

Summary:

The Safecast team of the Future Dynamic Program is a group composed of members from the international volunteer organization Safecast. The goal of this team is to create a database of air quality and radiation in Tainan City through citizen science methods and expand the local environmental monitoring community, contributing to global environmental monitoring. Since the end of the course, students have been actively establishing relevant clubs on campus and are looking forward to the participation of like-minded students to raise awareness of civic engagement among the students of Cheng Kung University.

Outline the 3 key benefits of integrating this theme:

1. **Public participation:** The Safecast team promotes public involvement and awareness of environmental issues through citizen science methods. The public can participate in data collection and monitoring, increase understanding of environmental quality, and collaborate and discuss with relevant stakeholders.

- 2. Data visualization: By visualizing the data, the Safecast team provides an easily understandable and accessible platform for the public to intuitively grasp the changing trends in air quality and radiation levels and take appropriate actions.
- 3. International cooperation: The Safecast team facilitated technical exchanges between Japan and Taiwan through online meetings during the course. The mentors emphasized the establishment of collaborative networks among students and the promotion of sustainable development goals.

Outline the barriers or challenges encountered in integrating this theme and how you overcame these:

1. Advocating for active participation: Due to the lack of awareness of the citizen science among Cheng Kung University students, there were some obstacles in advocating for more participation from faculty, students, and administrative units. However, the team members collaborated with the university in various ways, such as, the campus security squad division and the bicycle club can utilize patrols and devices attached to bicycles to promote civic participation. Eventually, they obtained relevant data to build an open data map.

2. Data accuracy and reliability: Ensuring the accuracy and reliability of the collected data is a challenge. The Safecast team improved data accuracy and credibility through rigorous data collection and verification processes, as well as collaborations with professional organizations and the academic community, such as Software is licensed under the MIT license unless otherwise specified.

3. Involvement and recognition from local government: During the course implementation, the mentors expected team members to collaborate with local government for exploration. However, direct contact with the local government has not been established yet. However, we have already taken the first step and started exploring potential collaborations with commercial entities to jointly research and transform the hardware and software of the devices. This would allow more people, including students, to carry the devices with them and upload data anytime, anywhere. We will continue to study the feasibility of such collaborations in the future.

Please outline your conclusions and recommendations to others (Max 200 words):

Arranging short-term intensive courses on campus and collaborating with international organizations is indeed an element that encourages student participation. The citizen science engagement issue is deeply ingrained in the hearts of students in every course, to the extent that when we were thinking about finding stakeholders, we immediately reached out to the campus security squad duvusion and the NCKU bicycle club, effectively implementing civic participation in every individual. However, promoting practical action-based courses on citizen participation within formal campus curriculum is not an easy task. Therefore, students have spontaneously established relevant on-campus clubs, seeking participation from students with relevant backgrounds, hoping to engage the campus community by promoting the current achievements. In addition, students are actively seeking collaborations with external commercial entities to secure sufficient funding for the

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subsequent project implementation. This will be beneficial for the transformation of monitoring device's hardware and software equipment, allowing Safecast's mission to be recognized by a wider audience.