

SDG REPORT

Rajamangala University of Technology

Phra Nakhon **2024**

6 CLEAN WATER AND SANITATION



– The Role of Rajamangala University of Technology Phra Nakhon in Advancing the Goal of Clean Water and Sanitation



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In an era where the world is committed to sustainable development, higher education institutions play a crucial role as mechanisms for driving these goals through their core missions: producing graduates, conducting research, providing academic services to the community, and preserving arts and culture. Rajamangala University of Technology Phra Nakhon (RMUTP) is one such institution that has demonstrated its commitment to supporting Sustainable Development Goal 6 (SDG 6: Clean Water and Sanitation for All) through concrete and integrated operations across multiple dimensions.

1. Teaching and Instruction: Creating Experts to Protect Water Resources

The most critical foundation for supporting SDG 6 is the creation of knowledgeable and skilled personnel to manage the nation's water resources. RMUTP entrusts this mission to the Faculty of Science and Technology as the primary body.

- The Environmental Science and Technology program not only teaches theory but also emphasizes intensive practical application. In the "Water Pollution Laboratory" course, students acquire essential skills, from planning and conducting water sample collection in the field to using fundamental quality testing instruments (e.g., for pH and dissolved oxygen) and analyzing complex parameters in the lab. The "Water Pollution Prevention" course teaches principles of controlling pollution at its source, from both industrial and community sectors. This ensures that graduates are well-equipped to work effectively as wastewater treatment system supervisors in factories or as environmental academics in public agencies.

2. Research and Innovation: From the Laboratory to Real-World Application

RMUTP ensures that academic knowledge does not remain static in textbooks but is transformed into tangible innovations that solve real-world problems.

- A prominent example is the "Floating Buoy for Wastewater Monitoring in Aquaculture" from the Faculty of Engineering. This innovation masterfully integrates local wisdom, inspired by the Chaipattana Aerator, with modern digital technology. The device not only aerates the water but is also equipped with sensors for real-time quality monitoring, sending data directly to farmers' smartphones. This allows for immediate intervention, supporting the grassroots economy while protecting the environment.

- Additionally, policy and management research is conducted to improve the efficiency of the university's resource use. This includes studies on recycling treated water for landscaping or finding ways to reduce water loss in the campus plumbing system. This knowledge can then serve as a model for other organizations.

3. Policy and Operations: Creating a Model for an Environmentally Conscious Organization

The university has earnestly applied the principles of SDG 6 to its internal management through the Green University policy, formally announced in 2024.

- The "Water Management" component of this policy involves more than just awareness campaigns; it includes concrete actions such as progressively installing water-saving fixtures in buildings and implementing a regular leak detection and repair program. Crucially, this transforms the university into a "living laboratory" where students and staff see and participate in water conservation in their daily lives, thereby fostering a sustainable organizational culture.

4. Student Activities: Instilling Consciousness through Direct Experience

To complete the learning process, RMUTP encourages students to experience the real world and contribute to society.

- Field trips to institutions like the Environmental and Pollution Control Office offer a golden opportunity for students to witness the actual work processes of environmental protectors, interact with officers, and understand the challenges of enforcing environmental laws—an invaluable experience that cannot be found in the classroom.
- Volunteer activities, such as the "RMUTP CNE-Clean & Clear" project, are hands-on initiatives that create an immediate impact. Collecting trash in public areas and along canals is a direct intervention that breaks the cycle of waste flowing into rivers and oceans. This is a fundamental way of solving the problem at its source and truly instilling a sense of public responsibility in students. In summary, RMUTP has systematically and comprehensively advanced its SDG 6-related work by creating skilled individuals (through its curriculum), developing practical innovations (through research), leading by example (through internal policies), and fostering a conscious mindset (through student activities). This reflects the role of a higher education institution that is deeply committed to not only imparting academic knowledge but also to being a vital force in building a sustainable future for Thai society and the global community.

