

Outline of Kagoshima University: Potential Fields of Research and Education

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Abstract

The paper looks at the outline of Kagoshima University and proposes the potential fields of research and education that the university eagers to develop international collaboration in the form of students exchange and academic research. The advantage of Kagoshima University for the researchers is in its geographical location blessed with diverse nature and culture. Especially the islands in Kagoshima provide them with attractive and challenging research fields for tackling the local and global issues such as community development, conservation of biodiversity, and disaster management etc. In these areas, what kinds of research and educational programme have been conducted in the university is discussed.

Keywords: biodiversity, community development, disaster management, island studies, tourism

Kagoshima University is a leading university in the region with 12,000 students and 2,500 staffs. The university is located in the southern end of Japan and it has a unique geography, which includes lots of islands and covers two climate zones from temperate to subtropical. The islands of Kagoshima, with their diverse nature and culture, give us attractive and challenging research fields.

The university strategically promotes research in islands especially focusing on environment, water, energy, and food and health (Fig. 1). Climate changes affect the local environment. Food and health are critical issues under the globalization. Local communities are shrinking under the aging and depopulation. Islands in Kagoshima Prefecture provide ideal research fields for tackling these twenty-first century issues. How to cope with environmental changes and the globalization, how people live with nature, how to keep local communities alive, how to build a sustainable society? We aim to develop a regional model for solving these local and global issues through the research in Yakushima Island and

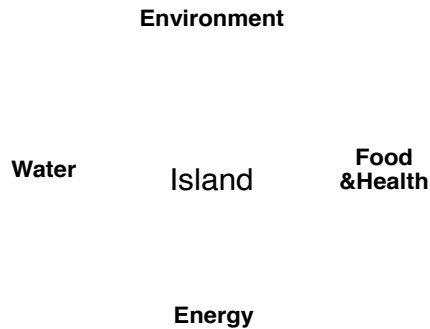


Fig. 1. Research projects promoted by Kagoshima University in islands.

the Amami Islands. In the following, I will explain research projects and education courses focusing on islands in Kagoshima University, and propose potential fields that we would like to develop an international collaboration in the form of student exchange and academic research.

Let me start a discussion from Yakushima Island that was registered as the World Natural Heritage in 1994. The island is some 135 km south of Kagoshima City and is 130 km around and 500 km² in area. From coast to peak, it reaches almost 2,000 m. With the differences in temperature, a wide variety of vegetation and plants can be found in vertical distribution up the island, from the banyan trees and strangler figs in the sub-tropical forests, to the laurels and oaks in the warm-temperate evergreen forests, to the fir trees in the cool-temperate coniferous forests, and finally the low scrub of dwarf-bamboo and rhododendrons in the sub-alpine areas. The island is also blessed with 4,000-10,000 mm of annual rainfall giving it unique forest vegetation including Japanese cedar trees which grow to several thousand years old. The island is also home to endemic species such as the Yakushima macaque and a variety of sika deer. It also has the largest sea turtle nesting site in Japan. It was the fact that people live side by side with this unique ecosystem that enabled the island to be registered as the Natural Heritage site.

The current issue in Yakushima Island is how to conserve the island's forest under the pressure caused by the increasing numbers of tourists. The damage is also caused by increasing numbers of Yaku sika deer. Then, there is growing friction between the local community and tourism industries. Successful community development through the eco-tourism is expected and desired. Biodiversity management will be a crucial issue to be tackled.

The same question is also applied to a group of islands called Amami, which is on the tentative list of the World Natural Heritage site. Recently the local community is getting to be active for the registration. Kagoshima University supports the movement and interacts with the local government in the field of environment studies.

In order to promote island studies and to contribute to local society, Kagoshima University boasts the Research Center for the Pacific Islands (KURCPI). The center is a very unique institution and conducts interdisciplinary research. Researchers from different faculties with varieties of disciplines work together for comprehensive understanding on islands. Projects are mainly conducted by three study groups as follows: Environment, Society, and Adaptation. The Environment group focuses on interaction between nature and people in islands for maintaining biological diversity. The Society group investigates the dynamics of social changes and the courses of development. Adaptation group studies on industries of agriculture, livestock, and fisheries in order to find out adaptive measures to the environmental and social changes. The center takes in visiting professors from overseas universities for building international networks of island studies, and it has also collaborations with the local government and NGOs.

A recent publication titled “The Islands of Kagoshima” is the fruits of projects conducted by the KURCPI. Twenty three papers are contributed to discuss island issues from different perspectives. Another project of “Autonomous development of islands” discussed the effective use of islands resources from nature to culture and communities. The KURCPI also has carried out research on islands in abroad. For example, influences of globalization and global warming on the lives of pacific islands have been studied in several islands of Micronesia. “Evaluation of ecology-economy system in Fijian marine resources” is a joint research by professors of marine science and economics. In a project of dengue fever vector mosquitoes, medical scientists, ecologists, ethnobotanists, and social scientists are working together for prevention of a dengue fever outbreak. In this way, islands with isolated environment, autonomous society, and distinctive insular culture provide challenging and interesting fields for research. Studies of islands need comparisons and corroborations locally and globally.

In education, Kagoshima University has special courses focusing on islands. Community Health Nursing in a remote island is a course in the Department of Health Science. This is a study about the role of nurses and the other health care workers in islands with no doctor. International Islands and Community Medicine Course is provided by the Graduate School of Medical and Dental Sciences. The prevention of lifestyle related diseases such as diabetes and cancer is one of the most important research subjects because islands’ population has unique life style and food habits. Amami Islands Research Course is provided by the graduate school of Humanities and Social Sciences. Kagoshima University has two satellites in the Amami Islands, where island related subjects are offered for graduates students.

So far I have discussed research and education focused on islands, then I propose the following themes to be explored for the future collaboration with Pattimura University, based on the geographical characteristics both universities have in common.

1. Community development based on tourism industries
2. Biodiversity and its management
3. Functional effects of locally produced food on life-related diseases and geriatric syndrome
4. Disaster management of small island

References

- KAWAI, K., TERADA, R. and KUWAHARA, S. (eds.) 2013. *The Islands of Kagoshima*, 158 pp., Kagoshima University Research Center for the Pacific Islands, Kagoshima, Japan.
- KITOLELEI, J., NISHIMURA, S., TORII, T. and KAWAI, K. 2014. Multilayer Rules and Governance in Fiji Coastal Communities: A Case Study of Veivatuloa Village. *Evolutionary and Institutional Economic Review*, 11(1): 53-66.
- NODA, S., YAMAMOTO, S. and TOMA, T. 2013. Mosquitoes Collected on Pohnpei Island, Mokil Atoll and Pingelap Atoll, Pohnpei State, the Federated States of Micronesia (Diptera: Culicidae). *Medical Entomology and Zoology*, 64(4): 197-201.
- NODA, S., YAMAMOTO S. and TOMA, T. 2014. Mosquitoes Collected on Weno Island, Romanum Island and Piis-Paneu Island, Chuuk State, the Federated States of Micronesia (Diptera: Culicidae). *Medical Entomology and Zoology*, 65(1): 23-27.
- NODA, S., YAMAMOTO, S., TOMA, S. and TAULUNG, L. 2013. Distribution of Mosquito Larvae on Kosrae Island, Kosrae State, the Federated States of Micronesia. *Tropical Medicine and Health*, 41(4): 157-161.