## Island University of Social Responsibilities-The linkage between Penghu Islands and National Penghu University of Science & Technology (NPU)

Ueng Jinn-pyng, President of NPU

## **Overviews in Geographic and Historical Penghu Islands**

Penghu, so called Penghu archipelago, locates in the Taiwan Strait with distances of 50 kilometers from Taiwan and 140 kilometers from Eurasia. Penghu composes 90 island, and total land area is around 128 square kilometers. The population in Penghu is around 104 thousands.

Original geomorphology of Penghu formed before 17 million years ago. With ocean abrasion and weathering erosion over millions years, various topographies have been developed, such as basalt cliffs, wave-cut platforms, sand dunes and shell sand beaches.

There three major currents flow together close to Penghu, including the Kuroshio Branch Current, China Longshore Current, and South China Sea Current. These confluxes maintain seawater to be warmer, and results in abundant fisheries around Penghu area. Because of rich in fisheries, Penghu is called as Pescadores by Portugal colonists in the 16 century.

## The Crisis and Impacts toward Penghu

Penghu economic values are mainly contributed by fishery and tourism. However, two jeopardies, including marine resource depletion and tourism seasons imbalance, are strongly affecting livings and activities in Penghu.

First, over fishing by improper seizing both large and small fishes results in lacking of recovery capability in most marine creatures. Some fishermen intense to have more severe capture activity for their revenue, and marine ecology turns into unstoppable and undesirable cycles. At the same times, many neighboring countries catch fishes cross-border illegally. Marine resources exhaustion is getting worse days by days.

Second, tourist season in Penghu mostly tighten from late April to middle October. As Northeast Monsoon blowing in cold seasons, most tourists stop visiting Penghu. During tourist season, Penghu is overloaded, and quality of tourism is difficult to maintain. On the other hand, environmental pollution and trashes are arisen.

Third, floating waste is ruining ecotype in Penghu. Kuroshio Branch Current, China Longshore Current, and South China Sea Current could bring rich fishery, but also tons of abandoned fishing nets and floating trashes. Those marine abandons negatively affect nearshore creature habitats and tourism in islands.

## University Social Responsibilities on NPU

University not only function as talent cultivation in academic and research, but also shall take responsibilities on social and communities improvement along with national and local governments. Under the missions of university social responsibility, the NPU has some marvelous compliments.

<u>Marine Conservation Education</u>: NPU holds marine conservation workshops for Grade 1-9 students and community civils every year. Averaging around three thousands individuals attend these workshops annually. All participants shall learn outcomes of resource exhaustion brought by over fishing and catching, and workshops establish conservation perception in their minds.

<u>Re-habitation of Original Marine Species:</u> Students and faculties of NPU work on restoration of local marine species in classrooms. We successfully reproduce and release urchins, corals, grouper, crabs and shellfishes every year in order to recover marine resource.

<u>Marine Conservation Area Establishment:</u> National government of Taiwan conjoined with NPU for developing the Penghu Marine Conservation Region in 2014. It located on the south of Penghu consisted of four islands with 358 square kilometers. NPU inspects biodiversity in the conservation zone. NPU united with research teams from Portugal and Netherland for biodiversity investigation in pass few years. Many new marine species, especially in some spongia, were documented. These founding could bring numerous benefits to nature research basis, in-depth tourism development, and marine species conservation.

<u>Professional Tourism Practice Training:</u> Penghu is off-shore islands from Taiwan. Around 95% of tourists comes from Taiwan. Most of bachelor degree professionals that work in tourism and hospitality are graduated from NPU. Even now, high ranked tourism facilities and hotels were built one after another. NPU provide well designed training programs and talents to improve the quality of tourism in Penghu.

Local Culture Inheriting: Penghu were civilized about hundreds years earlier than that of Taiwan. Penghu has raised unique ocean culture and life styles. Such a native Penghu ballad so-called "Bao songs" is using innate tones and vocal to express many affections, sincerities and feelings. NPU opens the native ballad as a general course to pass down this local culture years after years.

Stone Weir Investigations: Stone weirs function as fish traps and the first stone weir was built at hundred years ago in Penghu. The distribution of stone weirs in Penghu are largest quantity around the world. NPU faculty contributes comprehensive studying in stone weirs and provide historical and traveling guidelines for tourists and the local government.

<u>Innovation in Intelligent Tourism</u>: There is tourism imbalance between tourist seasons in Penghu. Tourists are obvious declined during winter times. NPU combine technologies of intelligent information and operation to build smart tourism infrastructure. NPU faculties form basic tourism systems and services by means of IT and IoT to deal with imbalance tourist attendance between seasons.

There is a firm linkage between NPU and Penghu islands. NPU act as a strong partnership to Penghu, and provides positive contributions including ecological, economic, and cultural levels. Penghu is off-shore islands from Taiwan, and NPU become an indispensable companion to Penghu islands.