

**1. Plan: The Second (year 2020–2022) University Social Responsibility Project :
‘Deeply Cultivate Fangyuan, be Hand-in-Hand with Dacheng: The Industrial and Environmental Sustainability of Changhua Twin Cities’**

Haha Fishery is the model field of this project, and the project expands to the Changhua County Breeding Association and Youth Breeding Association. The project aims to expand its areas of consideration. The core members of this association have rich breeding experience, and the project continues to recruit more of these core members as teachers. These teachers help educate college students to broaden and deepen their understanding of the local industry and allow more local fishers breed aquatic products in an environmentally friendly way. In addition, the project promotes products and sales experience and assists our school’s professional teachers in product marketing and packaging.

The aim is to assist local fish farmers to help students understand, love, use, and cherish the sea. Furthermore, the project can recruit enthusiastic students who want to give back to the village to form a water quality team. These students can propose solutions to local problems in Changhua’s coastal area and solve various issues pertaining to mariculturists. They can regularly check the water quality of local coasts and fish farms to prevent fishermen from introducing poor quality marine aquaculture. They can also actively prevent and control exotic mussels and reduce the chance of death caused by the adsorption of foreign mussels into the clamshell. Furthermore, they can cooperate with Changhua County Farming Association to promote photosynthetic bacteria and help breeding ponds increase the proportion of beneficial bacteria and improve environmental quality. Finally, they can use the bacteria control method to cultivate local *Budovibrosis*, improve the control rate of bacteria in clam ponds, and improve the water quality of fish farms.

2. Achievements :

(I) In response to the sudden death of clams and ageing population of the breeding industry, we cooperated with the Changhua County Aquaculture Association. Furthermore, we signed a letter of intent with the Department of Aquaculture of Ocean University, inviting the in-depth guidance of experts from the department of clam farming. We also invited Chiayi University’s Aquatic Biological Sciences Professor Hongzhi Lai (Vice President of the Taiwan Branch of the Asian Fisheries Association), who specialises in water quality and sediment analysis, to assist in finding a solution to the sudden death of clams. Our project involved students in solving local issues, which promotes the return of young people to local employment and place-making.

- (II) We assisted more local fishermen in breeding their aquatic products in an environmentally friendly way; promoted production and marketing experiences; united the professional teachers and students of the school in assisting in the marketing and packaging of clam products; and invited academic experts such as those from the Water Testing Institute, Ocean University, Chiayi University, and other scholars to jointly counsel local fishermen. If the project can incorporate more green energy in the future, it will be more aligned with environmentally friendly fish farming.
- (III) We actively cultivated local environmental education personnel, including providing 24-hour courses for local teachers to ensure they recognise the importance of environmental education to enable children in rural and coastal areas to obtain such education. We also provided 33-hour and 120-hour environmental education personnel training. It is hoped that training local teachers will enable them to identify and solve local problems. In addition, we united cross-field experts and scholars from our school and others to establish a professional project team to address the problems of the clam breeding industry, clean beach and wetland conservation, environmentally friendly breeding, food safety, green energy, and community rebuilding for sustainable environment promotion. We cooperated with local associations to promote green energy, energy saving, carbon reduction, and environmentally friendly activities, and worked with locals to renovate fishing villages, educate and promote a good breeding environment, introduce environmentally friendly breeding technology, and find talent for community regeneration and reengineering. Such projects can improve the quality of the environment and fishing industry, creating sustainable environmental management and utilisation.
- (IV) We actively cooperated with primary and secondary schools to handle food and agriculture education and train local teacher environmental education personnel. In addition, we actively cooperated with communities to assist in the implementation and application of related programs including the educational programs on food and agriculture of Wanggong Elementary School, Yuhua Elementary School, Houliao Elementary School, Cao Liao Elementary School, and Caohu Junior High School. We also participated in the implementation and application of relevant projects in Xinsheng Community, Jianping Community, Fangyuan Township Office, and Hanbao Village Office regarding the renovation of fishing villages, finding talent for transforming and recreating communities, and sustainable environmental management and utilisation.
- (V) We invited our school's green energy experts and consultants of the Environmental Education Centre, Professor Zhongbi Wei and Liangrui Chen of

the Department of Electrical Engineering, to participate in this project and organise multiple green energy sustainability strategies including solar photovoltaic and green energy-related environmental education courses, and workshops to promote energy conservation, carbon reduction, green energy, and environmental protection. These efforts assisted in conducting a complete assessment.

(VI) We promoted pollution-free, environmentally friendly aquaculture, which does not use underground freshwater, and the transformation and development of the tourism industry to fundamentally improve the problems of drug abuse and groundwater over-extraction caused by overdose and stratum subsidence. Only then can we maintain the security of our homeland and improve the breeding environment, produce safe and non-toxic food materials that create new opportunities for fishing villages, increase employment, convince young people to return to their hometowns, create places for living, and sustain the environment.

(VII) To make our school a promoter of local regional development and local creation, the school established an industrial sustainable management care team. For Fangyuan Township, Changhua County, we care about renovating local fishing villages, guiding various environmental education and biological fields, finding talent for transforming and recreating communities, and sustainable environmental management and utilisation. In year 109, we organised 24 workshops related to the breeding industry and local cooperation with 767 participants, and 12 local-related expert preparatory meetings with 214 participants. We also assisted in the Hanbao sunset concert with 80 participants. This event was attended by the governor of Changhua County, county and city councillors, legislators, supervisory committees, the principals of the two schools, and local development associations. These activities achieved the purpose of promoting local characteristics, social enterprise entrepreneurship, and local agricultural and fishery products. Ultimately, they created more high-quality job opportunities and promoted local renovation.

Course/Activity Theme	Frequency	No. of Participants	Event Expense
Changhua West Coast Development Promotion Committee Preparatory Meeting	4	112	0
Meeting of Village Chiefs and Expert Consultants in Fangyuan Area	3	45	0

Hanbao Music and Food Festival Executive Meeting	2	20	0
Changhua County Environmental Protection Bureau Advisory Meeting	1	7	0
Wang Gong and Fangyuan DMO Alliance Meeting	1	23	0
Fangyuan Marine Debris Beach Cleaning Strengthening Conference	1	7	0
Hanbao Music and Food Festival	1	80	8,000
Changhua District Fishermen's Association Youth Skill Inheritance Workshop	1	49	6,000
Embedding Specimens with Crystal Gel Workshop	1	42	18,000
'Green Energy Comes to My Home' Workshop	4	101	26,880
Workshop on Common Farmed Fish Diseases and Prevention	1	39	20,680
Caohu Junior High School Food and Fishery Education Workshop	2	56	12,000
Workshop on Improving the Environment of Aquaculture Ponds	1	35	20,200
Fengming Junior High School Food and Fishery Education Workshop	1	30	60,00
Production and Sales History and Wetland of Importance Workshop	1	42	6,000
Green Energy and Fishery Workshop	1	26	9,120
Coastal Wetland Ecological Workshop	2	84	20,000
'Female Home Repair and Life Experts' Workshop	4	92	36,480
Wang Gong Ox Cart Coastal Industry Experience Workshop	1	42	31,346
Workshop on Sustainable Coastal Ecological Resources	1	55	68,081
24-Hour education for teachers and environmental personnel	10	150	139,161
24-Hour education for teachers and	10	230	87,600

environmental personnel			
120-Hour education for teachers and environmental personnel	32	608	363,847
Taiwan White Dolphin Conservation Workshop	1	44	91,20
Green Energy Multi-learning Workshop	2	30	13,440
Total	88	2,049	886,835

Index corresponding to SDGs

SDG01 SDG02 SDG03 SDG04 SDG05 SDG06 SDG07
SDG08 SDG09 SDG10 SDG11 SDG12 SDG13 SDG14
SDG15 SDG16 SDG017

Supporting photos



Caption: The water quality team conducts fish farm interviews with local fish farmers.



Caption: Workshop on common farmed fish diseases and prevention.



Caption: Expert advisory meeting on improving aquaculture in Fangyuan area.



Caption: Environmental Education Course–Green Energy Education with Trainees: From brain-winding power to wind power



Caption: Changhua District Fishermen's Association Youth Skill Inheritance Workshop.



Caption: Workshop on Sustainable Coastal Ecological Resources.



Caption: Wang Gong and Fangyuan DMO Alliance Meeting.



Caption: Hanbao Music and Food Festival Promotion Event.

Related links

- TaiwanHo-Changhua Light Travel: Huimei Wang as a fisherman for a day <https://reurl.cc/NrMK4Q>
- Tech News: Offshore wind power companies strive for 5.8 TWD bulk purchase rate and issued a joint statement <https://reurl.cc/qgA7zn>
- Nationwide recruitment of people to adopt beach cleaning (FB Fan Page): <https://reurl.cc/EnlxKm>
- Fun entertainment planet (FB fan page) <https://reurl.cc/4azVr3>
- Changhua County Government: Hanbao Music and Food Festival Presentation: Turning a crisis into an opportunity, innovating and creating value, and finding a new label for the place <https://reurl.cc/9rNeXY>