

煉鋼爐石應用於海洋牧場固碳之認證制度 與橋接溝通研究

執行單位

成功大學海洋科技與
事務研究所

計畫主持
人

劉大綱 教授

● 計畫介紹

針對日、韓對於轉爐石再利用技術與製成人工礁體(藻礁、魚礁)成為資源化商品的研發申請登記認證，以及最終獲得國家許可及人民信任之歷程與經驗及技術，進行國際交流合作與顧問諮詢，合作內容包含政策及法規、再利用技術標準規範與評估準則等推動與訂定，以及利害相關人之爭議處理溝通等。

● 計畫未來應用標的

本計畫以煉鋼爐石應用以營造海洋牧場可解決我國近岸沿海漁業資源匱乏和鋼鐵業爐石去化之問題。

本計畫各面向之關係與連結

3

- 煉鋼爐石
海洋應用

- 地方
- 民意
- 漁民
- 漁會
- 環團
- NGO



- 政策
- 法規



- 國外經驗
- 國際合作/顧問諮詢



- 標準
- 認證
- 申請
- 許可



Slag utilization in ocean farming: Study on the certification system and stakeholder communication

Execution Unit

Institute of Ocean Technology and Marine affair,
National Cheng Kung University

Project Director

PROF. TA-KANG LIU

- Basic oxygen furnace (BOF) slag in carbon fixation and ocean farming in in Japan and South Korea and other countries in practice has been highly valued. MOST Phase II national energy plan (NEP II) has also been working on the promotion of ocean farming, that the successful establishment of the mechanism and the use of technology will enable the promotion of recycling, carbon reduction, and to the conservation of declining near shore coastal fisheries resources.

“Using steel-making slag to create sea forest and marine ranch in Taiwan marine environment”

Consulting and Know-How Sharing

Consulting Services

- **Legislation:** Law, Regulation, Guideline

Collaboration with Government

- Preparation of Policy & System for Slag Reef
- Add Article to the Regulation on Artificial Reef for Slag Utilizing
- Certification of Slag Sea Forest Model

- **Evaluation:** Tools, Standard, Criteria, Environmental Impact Assessment

- Chemical composition & elution: Monitoring of adhered biology
 - **Laboratory test**
 - **Field test**
- Verification for food safety
- Assessment for ecological toxicity
- Evaluation of slag-reef forest for Registration to guideline of Government
- Evaluation of slag-reef forest for certification as an official artificial reef

- **Stakeholder-Communication and Dispute Resolution**
Communication, Conflict, and Dispute Resolution