

## 農民參與棲地營造行動—以南安水稻田區為例

詹于諄<sup>1,\*</sup>、林泳滄<sup>2</sup>、吳海音<sup>3</sup>、劉寶華<sup>1</sup>

<sup>1</sup> 慈心有機農業發展基金會專員

<sup>2</sup> 南安有機農友

<sup>3</sup> 東華大學環境學院副教授

\*e-mail: [yc.chan@toaf.org.tw](mailto:yc.chan@toaf.org.tw)

### 摘要

過去在南安水稻田區所進行的昆蟲生態調查研究發現，生物多樣性支撐更穩定的食物網，對於病蟲害防治和農田土壤改良都會產生正面效果。而南安水田及周邊農田水路系統也發現瀕危魚類「菊池氏細鯽」。以下將介紹如何透過多方參與及棲地營造生態給付等措施，引動農民積極營造富含生物多樣性的田區。

棲地營造標的鎖定三項農民可以容易操作，對於改善整體田區生態關聯性比較高的面向，包括「田埂」、「土溝」及「生態池」，並訂出「達標」與「加碼」兩個給付級別。輔導團隊除引入花蓮農改場推薦之原生開花植物，並鼓勵農民運用花蓮林管處計畫所調查盤點之在地布農傳統作物與民俗植物，打造多元田埂草相，提供包括天敵、有益微生物及其他物種生存的環境。此外，也鼓勵農友保留或開挖田間終年蓄水的土溝及生態池，除了提供包括菊池氏細鯽等各種水生動植物生存利用的環境，透過穩定供應水源，對於當農民在曬田或收割，田區必須斷水保持乾燥時，能夠做為各類需要水源生物的庇護場域。

並在田區生態逐步改善後，辦理生態解說活動。除了導入喜愛生態的遊客，也於每月辦理在地學童的田區生態觀察活動。由農民擔任講師，介紹田區棲地營造的經驗與成果，鼓勵農民主動觀察田區生態變化情形，並藉由參與者的鼓勵，增強農民對棲地營造的榮譽感與自信心。

**關鍵詞：**農田棲地營造、水稻田、生物多樣性、生態給付

# Participation of Farmers in Habitat Creation Operations: A Case Study of the Paddy Fields of Nan-an Indigenous Community

Yu-Chun Chan<sup>1</sup>, Bubukun Vilian Takiludun<sup>2</sup>, Hai-Yin Wu<sup>3</sup> and Pao-Hua Liu<sup>1</sup>

<sup>1</sup>Project Researcher, Tse-Xin Organic Agriculture Foundation

<sup>2</sup>Organic Farmer, Nan-an Indigenous Community

<sup>3</sup>Associate Professor, National Dong Hwa University

## Abstract

Previous study on insect fauna in the paddy fields of Nan-an, a Bunun indigenous community, indicated that biodiversity provides support for a more stable food web by enhancing pest control and soil amelioration. The endangered fish species, *Aphyocypris kikuchii*, was also sighted in the paddy fields and surrounding water system. An attempt is being made through multiparty participation and payment for ecosystem services to prime the farmers to proactively adopt habitat improvement practices. Three feasible targets were identified, namely grassy ridges and earth ditches between paddy fields, and mini ponds within fields. These targets are relevant to habitat quality for diverse organisms in the farming system. Farmers who maintain grasses on ridges, retain or excavate earth ditches and mini ponds can receive basic payment. Those who pay extra efforts on the targets, such as planting native species of wildflowers recommended by Hualien District Agricultural Research and Extension Station, growing traditional crops or ethnic plants of the Bunun community, which were surveyed and inventoried by Hualien Forest District Office of the Forest Bureau, keeping water in ditches and ponds throughout the year, or devising modifications to the farming and habitat management practices, will win additional reward. Monthly eco-tours guided by one farmer at a time and assisted by a nature instructor are held to the younger generation of the local communities plus some participants from other areas. Farmers are encouraged to share their knowledge and explain the farming and habitat management practices to the participants. Hopefully, the mutual exchange of experience and knowledge between the farmers and the instructor and the responses from participants help to build responsibility, honor and confidence of the farmers. The effectiveness of the habitat improvement practices is being assessed.

**Keywords:** farmland habitat creation, paddy fields, biodiversity, ecological payment