

Long-Term Biophysical and Socio-Economic Monitoring of Floating Rice-Based and Intensive Rice Farming Systems in Mekong Delta

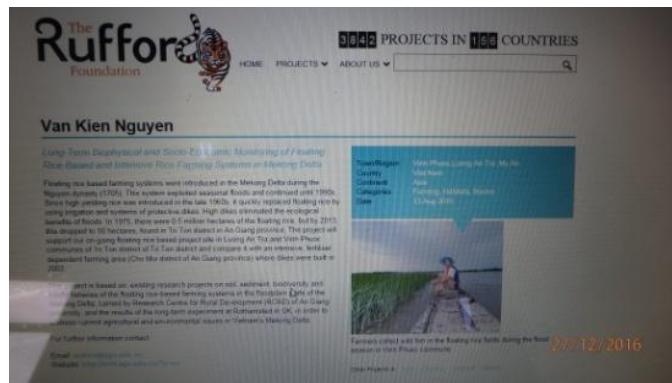
[Quan trắc dài hạn các chỉ tiêu kinh tế xã hội-ly sinh giữa vùng trồng lúa mùa nổi – vùng 3 vụ ở ĐBSCL]

Project: RSG reference: 17610-1

Policy Brief: RCRD-AGU001

Website: http://www.rufford.org/projects/van_kien_nguyen

Research team: Dr. Nguyen Van Kien* et al.: Dr. Pham Van Quang, Mr. Huynh Ngoc Duc, Dr. Nguyen Trung Thanh, Mr. Le Cong Quyen, Mr. Trinh Hoai Vu, Mr. Vo Van Oc, Mrs. Tran Thi Thuan, Mr. Vo Phu Qui Mr. Le Tri Thich & Mr. Dang Minh Man.



Project Website



Soil and water survey



Socio-economic survey



Biodiversity studies

SOILS
We found that nitrate (NO₃⁻) content was greater in the floating rice than in the triple rice while ammonium (NH₄⁺) concentration was almost opposite situation. The exchangeable cations Ca²⁺, Mg²⁺, K⁺ and Na⁺ in the floating rice were at low level, except some sites in Cho Moi site ranked as medium. The organic matter in Tri Ton site ranked from medium to high level for the observed sites in the floating rice; while it was ranked low level in the triple rice crops. The exchangeable cations Ca²⁺, Mg²⁺, K⁺ and Na⁺ in the floating rice were at low level, except some sites in Cho Moi ranked as medium. The available phosphorous was ranked as medium level for the floating rice, and as low level for the triple rice crops.

WATER
Six values of pH in Vinh Phuoc tended to have low pH levels (below 3.0) in comparison to other sampling locations. Some values of DO have low dissolved oxygen levels in comparison to other sampling locations. The observed TP value ranging from 0.01mg/l to 1,8 mg/l. Especially, the highest TP levels were found at ML1 sample point with a TP of 1,8 mg/l. Some sampling points had the highest TN levels, especially ML1 sample point with 4.8 mg/l of TN. However, some locations, total sulfate in water is more than 4 mg/l, especially, sampling point ML12 had the highest total sulfate levels, 20.1 mg/l.

SOCIO-ECONOMICS
We documented local knowledge of rice farmers for both floating rice and intensive high yielding rice in both sites. We also analysed the farming system between three crops of rice in comparison with floating rice rotated by dry season crops such as leeks, pumpkin, cassava, chilly and corns. We found that the economic returns of triple rice crops were less than that of floating rice rotated by other dry season vegetables crops.

BIODIVERSITY			
Indicators	Vinh Phuoc	My An	
	Floating rice	Floating rice	Triple rice crops
Fresh Water Fish	8 (families) 20 (species)		4 (families) 5 (species)
Plants	37 (families) 68 (species)	25 (families) 56 (species)	20 (families) 30 (species)
Birds	34 (species)		12 (species)
Reptiles	13 (species)		11 (species)

