



Challenging for global issues conducted by agricultural high school.

The Current Situation and Problems of Production Base in the Mekong Delta

Purpose

Making the production base in the Mekong Delta a more sustainable one



1 The current situation of water pollution in the Mekong Delta

2 The present irrigation system in the Mekong Delta

Methods

Topic 1

- ◆ Used simplified water analysis products.
 - * Sold by the Kyoritsu Chemical-Check Lab.
- ◆ Collected water at four different places: the floating market, the conservation forests, the seedling research center, and the water gate(fresh water).
- ◆ Measured the water at five different inspection values.



Simplified water analysis products

Topic 2

- ◆ Used water level indicator.
- ◆ Checked the water in the irrigation channel near the water gate (fresh water).
- ◆ Interviewed the local farmers.



Water level indicator



Setting the indicator into the channel

Results

Table1 The results of the research about water quality in the Mekong Delta

	COD	PO ₄ ³⁻ -P	NH ₄ ⁺ -N	NO ₂ ⁻ -N	NO ₃ ⁻ -N
Standard values of the rivers (Japan)	0~5	0~0.05	0~0.5	0~0.02	1~2
Standard values of the rivers (Vietnam)	10~50	0.04~0.20	0.1~1.0	0.005~0.01	2~15
At floating market	10	0.40	0.8	0.002	0.4
At conservation forests	26	0.20	1.0	0.040	0.4
At seedling research center	10	0.10	0.4	0.005	0.6
At water gates (fresh water)	21	0.14	1.0	0.050	0.6

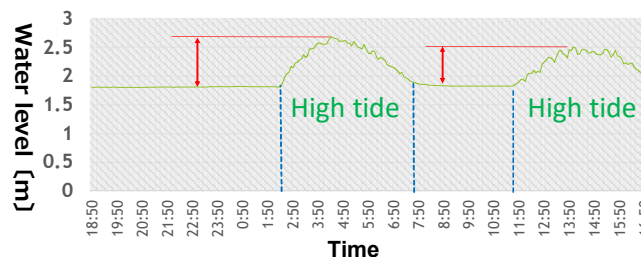


Figure1 Temporal changes of water level

- The data of 13 samples are much higher than the standard value in Japan.
- The standard value of the water quality in Vietnam is lower than that in Japan.

- Though the irrigation system in the Mekong Delta is simple, it can store enough fresh water for farming.
- To do double or triple cropping and shrimp cultivation ⇒ Fresh water shortage happens.

Examination Be sustainable

Topic 1

Improving the water quality
→ Determine the pollution source

Topic 2

Improving water shortage
→ Replicating the small reservoir in Shiroishi
= control water supplies effectively

Conclusion

Approaches

- ① Determine the pollution source
- ② Collecting the data about water income and outcome of agriculture



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