

## Improvement of Irrigation Efficiency on Paddy Fields in the Lower Mekong (IIEPF) Project

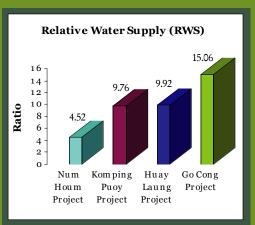


The IIEPF project aims to contribute to efficient irrigation water use through providing good institutional, managerial and technical guidance for the operation of irrigation facilities. In order to achieve this project objective, the IIEPF project is now conducting intensive field observation at four selected pilot irrigation schemes. (Fig 1.)

As an initial assessment an overview of the performance of irrigation schemes was undertaken in July and August 2006. The results of some typical indicators are shown in Figs 2 (a) and (b). A more detailed report will be published soon.

Following the initial assessment, the IIEPF commenced fieldwork in cooperation with Line Agencies of the member countries during the 2006-2007 dry season crop planting season. Fieldwork included intensive observation of irrigation water use, identifying irrigation efficiency and water productivity and documentation of water management rules and practices. This fieldwork will continue during the coming wet season crop (see workplan in Fig 3). A technical report is to be prepared after each crop season.

## Fig 2. (b) Productivity



## Fig 2. (a) Relative Water Supply

Fig 2 (a) shows the ratio of total external water supplied to the scheme to water required by crops in command areas. Under the tidal irrigation circumstance, a huge amount of water is introduced into the Go Cong project and this is used not only for crop production but also for navigation, salinity control etc. This leads to the high value of this indicator. In other words there is low performance of water management, but a vast amount of water being released and returned to the river. There needs to be more consideration of how to deal with this phenomenon throughout the project life.





Pumping water into the field



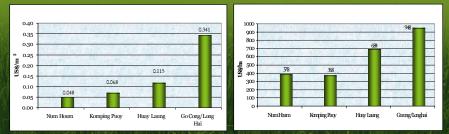
Percolation measurement



Explaining the flow meter system



Conducting flow measurements



The figures in Fig 2 (b) show irrigation productivity per irrigated area (left) and per delivered water (right). High values are observed at the schemes in Thailand and Viet Nam. The very intensive (three crops a year) cropping pattern at Go Cong project is one reason this area is so productive, and the high price of rice in the Mekong delta would also be another. However, scarce water resources under tidal irrigation in the Mekong delta requires stricter water management and results in high water productivity in the Go Cong project. Thanks to crop diversification in the Huay Luang project, various cash crops are planted in the dry season and this contributes to this site's higher productivity.

## Fig 3. Detailed work plan

|                                       | 20  | 006 |   |   | Ш |        |    |    | Ye | ar 2 | 007 |   |   |   |        |    | Ш  |
|---------------------------------------|-----|-----|---|---|---|--------|----|----|----|------|-----|---|---|---|--------|----|----|
|                                       | 17  | N   | D | J |   | F      | М  | А  | М  | J    | J   | Α | S | 0 | Ν      | D  | Π. |
| Crop calender and irrigation schedule |     |     | П |   |   |        | П  |    |    |      |     |   |   |   |        | П  | Π  |
| Komping Pouy (Cambodia)               |     |     |   |   | 4 | $\sim$ |    | -  | ~  |      | _   |   | _ |   | $\sim$ |    | Ц  |
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| Nam Houm (Laos)                       |     |     | / |   |   | -      | -  | >  |    |      | 2   | _ |   |   | ~      | Ħ  | Ħ  |
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| Huay Luang (Thailand)                 |     | +   |   |   | - | -      |    | -  | ~  |      | _   | ~ |   |   |        | 7  | Ħ  |
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| Go Cong (Vietnam)                     |     | 4   | - |   |   |        | -  |    | _  | _    | _   |   | ~ |   | /      | -  | t  |
|                                       |     |     |   |   | - |        | ÷. |    | _  | _    | _   |   |   |   | -      |    | Ц  |
| Monitering plan                       |     |     |   |   |   |        |    |    |    |      |     |   |   |   |        |    | Ħ  |
| Komping Pouy (Cambodia)               |     |     |   |   | F |        |    | F  |    | 0    | F   |   |   | F |        |    | 0  |
| Nam Houm (Laos)                       |     |     | F | F |   |        |    | F  |    |      | 1   | F |   |   | F      |    | 0  |
| Huay Luang (Thailand)                 |     |     |   | F |   |        | F  |    |    |      |     | F |   |   | F      |    | Π  |
| Go Cong (Vietnam)                     |     |     | П |   |   | F      |    |    |    | 1    | 7   |   |   | F |        | ТГ | П  |
| F:Field, O:Off                        | ice |     | П | П |   |        | Π  |    |    |      |     |   |   |   |        | TT | Π  |
|                                       |     |     |   |   |   |        | Π  |    |    |      |     |   |   |   |        | T  | П  |
|                                       |     |     |   |   |   |        | ΠT | 11 |    |      |     |   |   |   |        |    | П  |

