

CAMBODIA

Project Title: Benefits of seaweed farming for improvement of livelihoods of coastal population and biodiversity enrichment in Cambodia

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The Kingdom of Cambodia, which has a total area of 181,035 km², is located in the Indochina peninsula of Southeast Asia. It lies between 10°-15° N latitudes and 102°-108° E longitudes, and is bounded by three countries: Vietnam in the east and the southeast, Laos in the north and Thailand in the West and the Northwest. The topography of Cambodia is generally flat and some lowland plains in the interior of the country, but surrounded by highlands and mountains along the border. In the southwestern part of the country, there are 435 km of coastlines along the Gulf of Thailand, stretching between the Vietnamese borders in the South to the Thai border in the West. Furthermore, the Kingdom of Cambodia has her own Exclusive Economic Zone (EEZ), the area extending from the shoreline to 200 nautical miles, which covers 55,600 Km² (World Resource Institute, 1994).

The fisheries sector plays a vital function in the people's food supply, particularly for poorer members of the population. It is also important to Cambodia's national economy because most national incomes come from this sector through extraction as well as exportation. The latest official data recorded by the Department of Fisheries (DoF) in terms of total commercial fisheries production in 2002 was 424,400 tons, which included small scale and family scale freshwater fisheries and aquaculture production, except crocodile culture (DoF, 2003). In this case, freshwater fish capture was the dominant category, and accounted for 85% of the total production in 2002; marine capture fisheries was 11%, while total aquaculture represented only more than 4%. Even fish production increased based on fish capture fisheries data. The trend in fish production has led many to assume that fishery resources are overexploited. Therefore, to allow fishery resources to recover, alternative jobs for local fishers are the best option to enhance fishermen's

livelihood and stop them from fishing, especially their destructive fishing practices. One option is aquaculture, which, in Cambodia, includes not just fish and shrimp culture but seaweed culture as well. Total aquaculture production has increased since 1984. Seaweed culture, which was introduced in 1999 in Cambodia, is considered to be one of the best employment opportunities for local people who live along the coastline of Cambodia.

Cottonii was first introduced to Cambodia in 1999. More than 500 kilograms of *Euचेuma alvarezii* or *Euचेuma cottonii* was brought from Malaysia by a Malaysian company called 'Star Private Enterprise Limited', which started cultivating this seaweed close to the Prek Treng bridge of Sihanoukville, and then moved to Ream. Due to some problems with the Royal Navy in the area, production was again moved to Stung Hav. After that, the office was moved and finally settled

in Koh Tunsay in Kep Municipality. In Kep, there were more challenges with illegal competitors and an uncooperative governor, so again the project was forced to move office to Prek Ampil Commune of Kampot province by the end of 2000. From 1999 to 2000, the company completely lost any profit because only 16 tons of seaweed were exported to Malaysia. In 2001, the company ex-



Euचेuma cottonii

ported about 303 tons of seaweed and got more benefits, but in 2002 the production decreased to 241 tons due to the poor quality of the seaweed. The company plans to increase the production to 345 tons of export by the middle of May 2003.

The study has focused on reviews of literatures, socio-economic surveys and direct observations in the site to evaluate the socio-economic benefits of seaweed farming and the impacts of seaweed farming on the environment.

Many fieldwork activities were carried out in the site including direct observation, and many stakeholders, especially two groups of fishers and seaweed farmers, have been randomly selected for interview. Data were analysed and interpreted and incorporated into the report. The report also included farming history and techniques, problems encountered, social and environmental impacts, and policy guidelines. Conclusions and recommendations were also mentioned.

The study was strongly anchored on both social and economic surveys. Future plans include a scientific study on the project's biological and ecological impacts. ■