Green Fins-Thailand: Coral Reef Conservation in the Face of a Tourism Epidemic

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Abstract. In Thailand, reefs along Andaman and Thai Gulf coast cover 160 square kilometers. Only sixteen sites are designated National Parks. Over 670 dive, snorkel tour and boat operators bring an estimated million guests to visit primary dive sites during the six month high season each year. Currently, there are many problems contributing to reef destruction. The Government lacks infrastructure planning for the growing tourism industry and promotes reef tourism without conservation and resource management. National Parks possess insufficient human resources. Dive and tour operators lack an understanding of reef ecology and use the natural resource for business only. The popularity of reef tourism is ever increasing and this lack of management is causing devastation on the reefs of Thailand. The Green Fins mission is to protect and conserve coral reefs by establishing and implementing environmental-friendly guidelines for divers. We actively seek out dive operators, introduce our program, educate and encourage operators to become members. We also arrange for individual members to participate in activities such as cleanups, reef monitoring, or exhibitions. Members receive certificates and materials to promote good diving practice. To renew membership, operators are assessed yearly based on Green Fins Code of Conduct criteria which consist of environmentally friendly standards for dive operator. We use this network to promote sustainable dive and snorkel tourism industry.

Introduction
Currently, there are many causes that contribute to coral reef destruction. The rapidly growing tourism industry has a negative impact on the reefs. That is why the Green Fins Program has been established in four countries, namely Thailand, Indonesia, Malaysia and the Philippines by the Coordinating Body on the Seas of East Asia (COBSEA). COBSEA is one of UNEP's Regional Seas Programs. In Thailand, Green Fins is implemented by the Phuket Marine Biological Center (PMBC), Department of Marine and Coastal Resources.

Methods
The Green Fins mission is to protect and conserve coral reefs by establishing and implementing environmental-friendly guidelines for divers. We actively seek out dive operators, introduce our program, educate and encourage operators to become members. Members receive certificates and materials to promote good diving practice. To renew membership, operators are assessed yearly based on Green Fins Code of Conduct criteria which consist of environmentally friendly standards for dive operator. We use this network to promote sustainable dive and snorkel tourism industry.

Green Fins Thailand has also developed a Reef Watch method to encourage divers and operators to help monitor their reefs. It is a one-dive-one survey method to record the health of coral reef that even snorkelers are able to practice. In addition, dive operators may provide this program to customers as a form of educational awareness as opposed to purely leisure. Data can be uploaded online via the website www.greenfins-thailand.org which will be input into a National Database. We promote IYOR activities by encouraging Tour Operator Members to adopt a reef in which members can choose different dive sites to monitor with a minimum of 2 data entry per year. We aim to have members attend these activities in all areas nationwide so that reefs and dive sites are monitored as much as possible.
Results
Currently we have 90 Operator Members and 302 Individual Members mainly from 6 provinces along Andaman Coast without recruiting for new members. We also have 211 Reef Watch data forms submitted by members. We try to work closely with them to actively promote Green Fins for sustainable diving tourism industry. We also arrange for operator members and individual members to participate in activities and encourage Operator Members to organize their own activities with tourist and local communities. Activities that Green Fins organize to raise awareness are

- Exhibition at Thailand Travel & Dive Expo
- Adopt-A-Reef, Adopt-A-Beach program
- Photo Contest topic on “Marine Litter the Sea and the Coast”
- Recycle Art Workshop from garbage washed ashore
- Organize International Coastal Clean Up
- Organize the IYOR meeting with Dive Operators, and divers

Discussion
We primarily work in management, monitoring and education areas. Assessment method could help select the green dive operator through the continued close contact with members. In the long run, Green Fins will become recognized as a standard to certify green dive operators. Raising awareness and education is also essential for people to understand why the guideline are applicable. By doing so, Green Fins needs more funding to support volunteers, to help coordinate with existing members, and to continue to recruit new members and expand into other dive location sites. Green Fins-Thailand can also be further developed for snorkel tour operators, and for raising the awareness of local people. All dive sites need full time attendance from coordinator, with a long term establishment of voluntary programs in order to see satisfactory results.

Conclusion
For sustainability of the Green Fins program, we are in a process of registering Green Fins to become an Association in order to expand already existing projects within the area, and raise funds from private sector groups to support a full time coordinator. We hope that in the future, tourists will begin to ask operators whether they are Green Fins members and choose to dive with Green Fins’ friendly operators. In this way, the Green Fins Program will establish a network of active conservationist divers and snorkels, spreading the word quickly and being an effective voice for positive change in the dive and snorkel tourism industry. We hope that someday, our methods will be applicable to other highly toured nations facing similar problems.

Acknowledgement
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