

Internship title: Building capacity for locally-led and participatory MPA development and monitoring.

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Executive summary

This internship is intended to facilitate building capacity for a locally-led and participatory Marine Protected Area (MPA) development and monitoring in Cambodia. To support the development and implementation of the capacity building for MPA managers, under the MPA project. This will further build the longevity of the MPA network in Cambodia, including in the Koh Rong Marine National Park (KRMNP) and a under development of Koh Sdach Archipelago (KSA) MPA. The key results of these activities are: 1) Training on coral reef monitoring network, including methodology and species identification, with the team of National Committee for Marine Security in the Koh Rong Archipelago were completed and the trainees were able to conduct data collection for coral reef monitoring and send to the data system of CCRMN¹. 2) Surveying sea turtle IWT²'s products was completed, the results show that sea turtle products, such as jewellery or souvenirs, do not exist in Cambodia. The process of development of a new Marine Fisheries Management Area (MFMA) at Koh Sdach, Koh Kong province was under way. During the one-year internship I improved my skills in diving, marine biophysical monitoring and consulting and facilitating with local stakeholders. In addition, I have understood regarding marine pollution by plastic, fishing nets and illegal fishing and finding solution to reduce all these plastic pollution in local community, collecting fishing net during diving and working with authority and community to do more patrols. All my knowledge that I have gained on marine conservation during my internship will contribute towards my future career in supporting marine conservation in Cambodia.

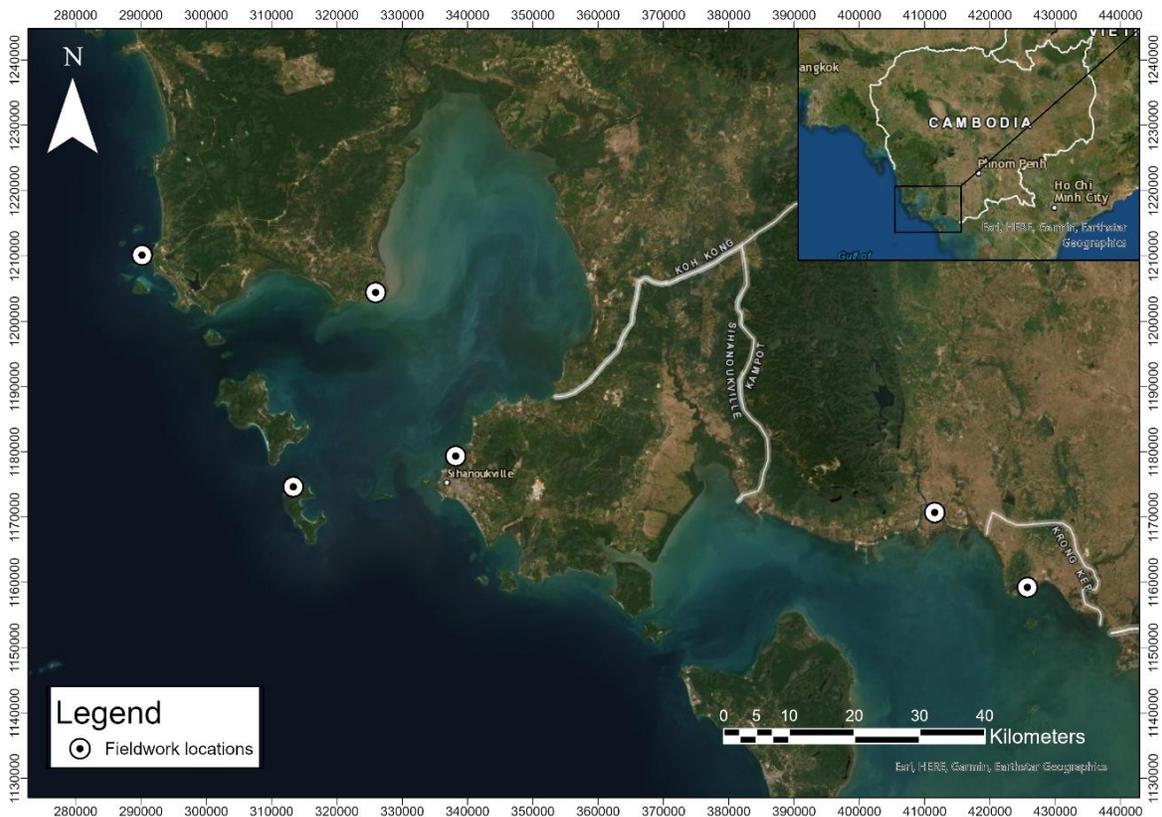
Introduction

¹ Cambodia Coral Reef Monitoring Network.

² Illegal Wildlife Trade

Since 2015, meta-analysis showed that biodiversity loss has reduced the efficiency by which ecological communities capture biologically essential resources, produce biomass decomposed, and recycle biologically essential nutrients(Cardinale et al., 2012). Currently, human resource on marine conservation in Cambodia is still limited. To ensure the work of marine conservation in Cambodia is sustainably operational, active participation is a key role to support this work.

The internship for conservation is very important for young people generations in order for them to know and learn more about conservation activities in the field including local authorities, community fisheries and fishermen for protecting natural resources. During the internship, I have improved my ability and skill in : working as part of a group on coral reef biophysical monitoring training with stakeholders in Koh Rong archipelago; working with Koh Sdach's community on patrol team and using SMART system; processing of MFMA consultation with local authorities and communities on the establishment of a new MFMA at Koh Sdach. I also worked with Kuda Divers in collecting lost or discarded fishing nets and plastic bottles and bags dropped in coral reef areas in Koh Sdach archipelago and completed diving skill practice with Kuda Divers. Finally, I took part in data collecting on sea turtle IWT's products along local markets and landing sites along the cost of Cambodia: Koh Kong, Preah Sihanouk, Kampot and Kep province.



Picture 1: Points of the locations that I worked during internship.

Aim and objectives

The intern will have a key role in developing and providing training for key local stakeholders to build capacity for future MPA development and monitoring. The intern will support the development and implementation of capacity building for MPA managers, under the MPA Project. Many activities for the establishment of the new Marine Fisheries Management Area (MFMA) at Koh Sdach were delayed because of Covid-19.

Activities and methodology

The most important internship activities were: 1) Supporting coral reef biophysical monitoring training, given to stakeholders, by doing translation the training documents and materials, as well as developing Khmer language training materials for MPA monitoring methodology (translating the name of fish, invertebrates and substrate on the slate for doing survey). 2) Translating communication materials for social media outreach (Facebook) about sea turtles, marine plastic and seagrass. 3) Supporting and participating in MFMA consultation meeting with local authorities and communities at Koh Sdach, Koh Kong. 4) Joining turtle surveys (data collection and data entry), identifying the trade of marine turtle products in Koh Kong, and then leading survey team in Preah Sihanouk, Kampot and Kep province. In regards to sea turtle survey trade, we facilitated and coordinated with chiefs CFis and fishermen who previously caught and sold sea turtles, and with vendors at the markets that sell seafood and souvenir, jewellery (made from sea turtle carapaces).

Outputs and result

To achieve our goal for conservation, awareness raising and training is a key role for stakeholder to understand more on marine conservation. I supported in developing Khmer language training materials of coral reef monitoring in order to provide training to stakeholders and authorities including National Committee for Maritime Border Security, officers of the Fisheries Administration and Ministry of Environment. It is really useful for them to clearly understand and apply their skills of such biophysical data collection for their participation in marine conservation.

Based on feedback on coral reef monitoring training, the trainees were really interested in the course and most of them got high score (10 of 11 people) after training for 5 days. All of them proposed to have more training courses and wanted to spend more time on these training courses, which were highlighting an increased commitment in future marine conservation. At the present day, the trainees could be able to do coral reef monitoring independently and in cooperation with us by sending data and information to the

database system of CCRMN. They learned methodology for fish, corals, invertebrate and substrate identification method and knew how to enter data into the data template system for analysis after doing surveys.

For the first MFMA consultation meeting in Koh Sdach, it was really great to share information and theoretical concept of MFMA with local people, communities and other stakeholders, in order to let them know about the benefits of the MPA development and zoning. We also joint with communities and local authorities to do patrols and follow-up activities with them through consultation in order to improve the effectiveness and efficiency of the conservation work.

During the internship, I have improved skills on coral reef monitoring methodology, diving, sea horse survey and technical language translation on seagrass, sea turtle and marine plastic pollution. More importantly, after the internship I have officially recruited by the host organization (FFI) to be project officer for the CMCP³ of FFI where my work and responsibilities are supporting field data collection marine biophysical monitoring, marine species survey; and supporting MPA development.

During the internship, I worked with Kampot, Kep and Preah Sihanouk Fisheries officers and CFi⁴'s chiefs for marine turtle data. I also worked with Kuda Divers for practising diving skills and conducting seahorse surveys with Roger, Dom and Jess. I completed surveys on marine turtle IWT's products in Cambodia: Koh Kong, Preah Sihanouk, Kampot and Kep province. Detailed results of this survey will be used to update the workplan for marine turtle conservation and protection in Cambodia.

Finally, through the translation of marine plastic pollution reports, I understood more about this plastic pollution and I personally committed myself to reduce the use plastic as much as I possibly can.

Achievements and impact

The internship is a great opportunity for the young generation. Although, it is only a year, I have improved my skills and understood more about conservation work in Cambodia. I brought my skills to support the marine team on coral reef monitoring, consultation meeting to develop the new MFMA in Koh Sdach archipelago, sea turtle survey IWT's products in Cambodia, and translation about sea turtle training and awareness materials, seagrass, marine plastic pollution on social media. The translation of materials and documents into Khmer language helps educate Cambodian people on marine conservation and inspire them to take part in saving marine biodiversity. By posting about marine conservation in Cambodia in the future, they will be changing their behaviour towards marine conservation. The results of the sea turtle survey will

³ Coastal and Marine Conservation Programme

⁴ Community Fisheries

be used to update workplan and other policy and legal framework on protecting sea turtle and other marine endangered species. The results of coral reef monitoring will be translating into a report reflecting the situation of coral reefs in that particular areas for influencing government policy development including putting more effort on MPA development. All of the activities which I have supported is to contribute to long-term impacts of marine conservation in Cambodia. In addition, to give a chance to the young generation through such internship programme is a key factor for increasing human resource of marine conservation in Cambodia. During the internship, the marine team at FFI always supported and encouraged me. They always gave me the chances to join activities in marine activity implementation in order to support the team. Then, they gave opportunity to me to lead the group for sea turtle surveying, writing activity reports and entering the data into the datasheet. Moreover, after the internship I have been officially employed with FFI and now working in the marine conservation team. Currently, I am part of the coral reef monitoring survey team with FFI and Kuda Divers to contribute towards the new MPA development in Koh Sdach Archipelago and to strengthen the capacity of other existing MPAs like Peam Krasop Wildlife Sanctuary and Koh Kapik Ramsar Site.

Conclusion

This internship programme is a great opportunity for me to further learn and gain more knowledge and skills surrounding marine conservation in Cambodia, and to build my ability for the current career at FFI through applying and improving skills in marine conservation. After the internship, I particularly improved my skill in coral reef biophysical monitoring and marine species ID. Moreover, I improved my skill in social science by communicating with fishermen and CFIs in order to get accurate data, in coordinating by working as group with many partners and stakeholders. My technical language and translation have also been improved. All the knowledge I gained through the internship programme is really useful for my current job with Coastal & Marine Conservation Programme, FFI Cambodia. All my skills and knowledge from the internship are and will be applied to marine conservation in Cambodia.

Acknowledge

The opportunity of this internship programme was provided by the Conservation Leadership Programme provide budget for FFI to support me for working on marine conservation in Cambodia. I would like to say thank you to the Conservation Leadership Programme for their financial support and for giving me the best chances to gain knowledge and experiences on such as particular subject, therefore I could able to get the job. I would like to say thank you to my hosting organization (FFI) who always support me in this position. Especially, Marianne Teoh, Marine Manager, and supervisor, Sour Kim, Senior Research Coordinator and

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absolutely depend on what we do now”