

Second year evaluation



The Cambodian Marine Mammal Conservation Project

Organisation Name	Marine Conservation Cambodia
Programme Name	The Cambodian Marine Mammal Conservation Project
Programme Branch	Capacity building: training an all-Cambodian research team
Branch duration	February 2021 – February 2022
Brief presentation of the project	<p>The project aims to bring about active protection of Kep and Kampot’s population of Irrawaddy dolphins, leading to an increase in population and ecosystem health. With the financial support of the Lighthouse Foundation, we had the opportunity to engage with six universities bringing marine conservation to curriculums of departments such as Fisheries, hydrology and conservation related courses.</p> <p>Additionally we were able to make our marine mammal survey vessel operational offering the possibility to collect more data on endangered marine mammals in Cambodia including for the first time sightings of dugongs with calves within our protected area. Sang Sarong, a 4th year student of the Royal University of Agriculture will conduct her bachelor thesis on regrowth potential of seagrass meadows since it is the main food source of dugongs (<i>Halophila spp.</i>).</p> <p>“My name is SANG SARONG. I’m studying year 4 at Royal University of Agriculture in Phnom Penh. I am currently studying seagrass on Koh Ach Seh with MCC. Seagrass is an important plant in the marine ecosystem as well as a forage and habitat ground for marine life. And in my future, I want to be an expert in marine ecosystem research. Thank you, Lighthouse Foundation, for enabling me to become a marine conservationist in my country”</p> <p>-Sang Sarong, next generation of research assistants at Marine Conservation Cambodia</p>
Supporting Partners	<p>Fisheries Administration (FiA) Ministry of Agriculture, Forestry and Fisheries (MAFF) Ministry of Environment Royal University of Phnom Penh, Royal University of Agriculture, Institute of Technology of Cambodia Prek Leap National School of Agriculture Paññāsāstra University of Cambodia</p>
Other Funders	<p>Marine Conservation Cambodia, The International Conservation Fund of Canada, The Heinrich Böll Foundation, Idea Wild, The Rufford Foundation, Fondation Ensemble, The Mohammed bin Ziyad Foundation</p>

Project activities and results achieved

- More than 10 guest lectures have been conducted at five universities in 2022
- It was also possible to supervise the first guest lectures of a Khmer graduate of 2021 creating the path for the transfer to a fully Khmer-led academic teaching entity.
- 8 interested students from Royal University of Agriculture has been participating in marine science practical training (week of science) at Koh Ach Seh, of which one will conduct her bachelor thesis with us in 2023
- Through land and boat-based observations, the Khmer research team collected essential baseline data on Irrawaddy dolphin and dugong abundance, distribution, behaviour and ecology within the archipelago enabling the first ever aerial video footage of dugongs in Cambodia. These data are collated and disseminated into government reports, peer-reviewed articles and educational materials presented to schools, local communities and since this year in universities.
- The already established Khmer marine mammal team (thanks to last years funding) got the chance to built on their knowledge enabling them to become drone pilots and scuba-divers

The Lighthouse Foundation Funding

- The Lighthouse Foundation funding has made an incredible contribution to the self-confidence and pride of the Khmer research unit. Having directed support for explicitly them has shown them again that their work is valued. This continuous to be a strong motivator for our Khmer staff but also enables more passionate Khmer to join the MCC family while being trained in all fields of marine conservation.
- Direct contribution:
 - Salaries: The international researchers were able to train the Khmer staff of MCC to become even more self-sustaining leaving them in charge of additional aspects such as drone flying, alternative livelihood approaches and fishing community work. With the additional funding for a research assistant and development of research and fieldwork it was possible to include more Khmer into the MCC family since it would not be possible without salaries for them to join MCC as they need to provide support to their families. By facilitating them on the island with the combined efforts of the Lighthouse Foundation and Marine Conservation Cambodia it was possible to invite as many enthusiastic students and locals as we were able to find and it is of our great joy to conclude with the success stories of these inspiring people.
 - Equipment: Laptops enables our students to be trained and work on complex software such as QGIS and RStudio to enable them to conduct their own research in the future while also making them understand the value of knowledge transfer through guest lectures and published articles even if they cannot afford a laptop themselves. With the new equipment CMMCP is fully set up and will continue to collect scientific data to address conservation issues in Cambodia to a broad audience including the national government through the ministries of environment and fisheries (MoE, MAFF)
- Challenges: The fundraising campaign suggested by the Lighthouse Foundation with the aim to enable pier extension as well as buying a very needed drone has not yet been published so MCC is currently missing funding for the drone that had already been purchased. Please let us know if we can be of any further assistance to speed up the process since we do not have “own money” to compensate for this purchase.

Financial Plan – Please find the final accounting in the provided financial report

December 2021 (Received)	Unit	Number of unit	Cost per unit	Total cost in €
1. Salaries				6,250.00 €
Development of research & fieldwork	per month	12	300	3,600.00 €
Research assistant salary	per month	10	265	2,650.00 €
2. Equipment				2,900.00 €
Student laptop 2nd hand Asus K84L	per item	1	185	185.00 €
Research laptop	per item	1	890	890.00 €
GPS device Garmin	per item	2	250	500.00 €
Speedboat adjustments to a marine mammal research boat	per item	1	1325	1,325.00 €
3. Outreach				850.00 €
Marine Mammal Science guest lectures	per lecture	5	170	850.00 €
Total cost in €				10,000.00 €

July 2022 (Received)	Unit	Number of unit	Cost per unit	Total cost in USD
1. Salaries				
Lead Scientist	per month	12	300	\$3,600.00
2. Operational costs				
Boat fuel	per month	12	175	\$1,400.00
Radar tower (on the big boat)	per unit	1	700	\$700.00
Total cost in \$				\$5,700.00
Total cost in €				5,000.00 €

Fundraising (Not received yet)	Unit	Number of unit	Cost per unit	Total cost in USD
1. Equipment				
DJI Mavic 2 enterprise dual	per item	1	3500	\$3,500.00
2. Operational costs				
Pier extension	per meter	20	100	\$2,000.00
Total cost in \$				\$5,500.00
Total cost in €				4,900.00 €

Photos – Please find new photos as separate attachments including the UNICEF outreach video

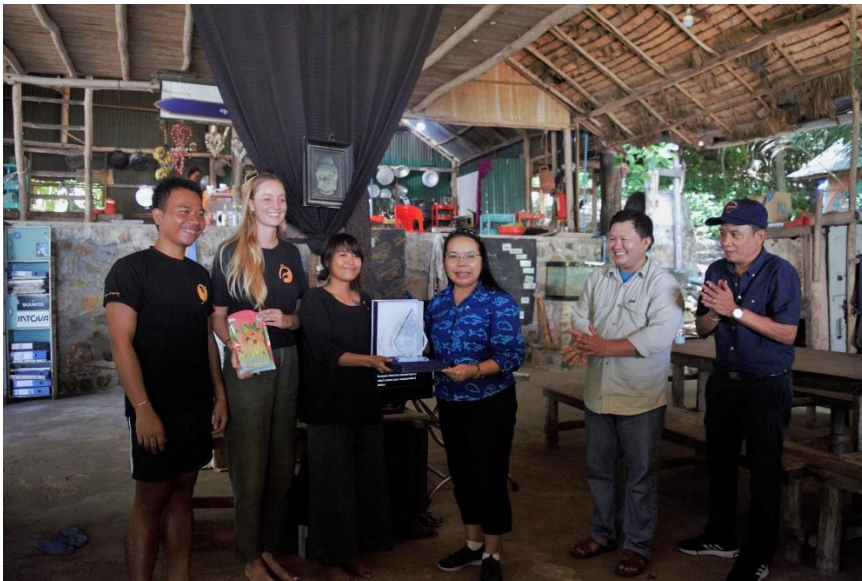


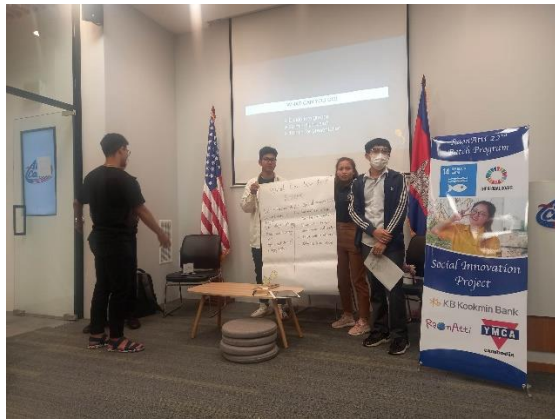












CMMCP Publications (updated)

- Tubbs, S., Akkaya, A., Cote, G., Jones, A. and Notman, G. (2019) 'Sighting and stranding reports of Irrawaddy dolphins (*Orcaella brevirostris*) and Dugongs (*Dugong dugon*) in Kep and Kampot, Cambodia. *Aquatic Mammals*. 45.5.
- Tubbs, S., Keen, E., Jones, A. and Thap, R. (2020) 'On the distribution, behaviour and seasonal variation of Irrawaddy dolphins (*Orcaella brevirostris*) in the Kep Archipelago, Cambodia'. *The Raffles Bulletin of Zoology*. 68.
- Chan, R., Tep, T. and Tubbs, S. (2020) 'Cetacean monitoring methods: using Irrawaddy dolphins to compare land-based surveys and acoustic sampling in Kep, Cambodia'. *Cambodian Journal of Natural History*. 2020(2).
- Jones, A L., Tubbs, S.E. and Thap, R. (2022) Irrawaddy dolphin (*Orcaella brevirostris*) strandings between 2017 and 2020 in Kep Province, Cambodia. *Cambodian Journal of Natural History*, 2022, pp.5-17.
- Jones, A L., Tubbs, S.E. and Croxford, E.M. (2021) Behavioural responses of Irrawaddy dolphins (*Orcaella brevirostris*) to a dead conspecific. *International Journal of Comparative Psychology*, 2021(34).
- Verutes, G., Tubbs, S., Selmes, N., Clark, D., Walkers, P. and Clements, O. (2021) 'Modelling seasonal distribution of Irrawaddy dolphins (*Orcaella brevirostris*) in a transnational Important Marine Mammal Area'. *Frontiers in Marine Science*. 8(617921).