

# Hawksbill Turtle Recovery Partnership Prospectus

A blueprint to recover hawksbill turtle populations in the Asia-Pacific region

## Hawksbills on the edge

Sea turtles have survived and thrived in the Earth's oceans for more than 200 million years, but over the last 200 years populations have declined globally to dangerously low levels. Six of the world's seven species of marine turtle are still found in Australia and the Asia-Pacific region but all face serious threats to their survival.

The hawksbill turtle (*Eretmochelys imbricata*), so named for their hawk-like bill, are famous for the colour and quality of their speckled shell, which has been used for centuries for ornamental purposes. Despite being listed internationally on the International Union for the Conservation of Nature (IUCN) Red List (2008) as critically endangered, hawksbill turtles are the most poorly studied species of marine turtle.

In the Pacific Ocean, nesting female hawksbill turtles have declined by more than 75% in the past century (IUCN Red List, 2008), with numbers still falling. Australia's best-studied hawksbill turtle population is in the Great Barrier Reef and is regarded as one of the largest and most important populations globally but this population also continues to decline (Limpus & Miller 2008; Dobbs et al., 1999; Limpus 2009). While more science is required, some researchers fear our regional hawksbill turtle populations may be on the verge of collapse and that maintaining the status quo is no longer an option.

Like rhinos and sharks, and other species that are traded extensively across global markets, hawksbill turtles are intrinsically valuable. No one community, island, state or nation owns them – we all share responsibility for their survival. They are an icon for marine conservation and a flagship for conserving habitats such as coral and rocky reefs which benefit thousands of species.

## Four steps to recover hawksbill turtle populations

### The problems

**The decline in hawksbill turtle populations is primarily caused by:**

- ✘ **Loss or impact to critical nesting and foraging habitats** (e.g. from climate change, marine debris, coastal development, predators).
- ✘ **Illegal & unsustainable take** (e.g. market and trade of shell, fishing bycatch, egg and meat harvest).
- ✘ **Insufficient community awareness & support at all levels** (e.g. lack of involvement, ongoing consumer demand for banned turtle shell ornaments).
- ✘ **Inadequate national & international conservation management** (including scientific knowledge, compliance with international agreements, national laws and implementation of conservation programs).

### The solutions

**To help stop the decline, turn this crisis around and recover hawksbill populations, urgent action across four overlapping**

- 1. Strengthening national & international conservation management.**
- 2. Building community awareness, involvement and support**
- 3. Reducing demand & supply so all take is legal and sustainable.**
- 4. Restoring the resilience of critical habitats.**

**HAWKSBILL  
DECLINE**



**HAWKSBILL  
RECOVERY**

## Life cycle threats

Some hawksbill turtles migrate long distances between feeding grounds and nesting sites and often cross international borders. They face different threats at each life phase (Figure 3) and in each region, with only about 1 in 1,000 hawksbill turtle hatchlings surviving to maturity.

So, every hawksbill turtle death is significant. Population recovery actions are best focussed on critical nesting beaches and foraging grounds and are most effective when coordinated with all partners across the region over the long-term.

**Harvesting of eggs, hatchlings and nesting females** (by humans – legal and illegal)

**Predation of eggs, hatchlings and nesting females** (by native and exotic animals)

**Coastal development** (including changes to beach habitat, access barriers, light pollution, vehicle strikes, human disturbance)

**Hostile natural beach conditions** (sand erosion, entrapment / stranding hazards, elevated temperatures, nest inundation or collapse)

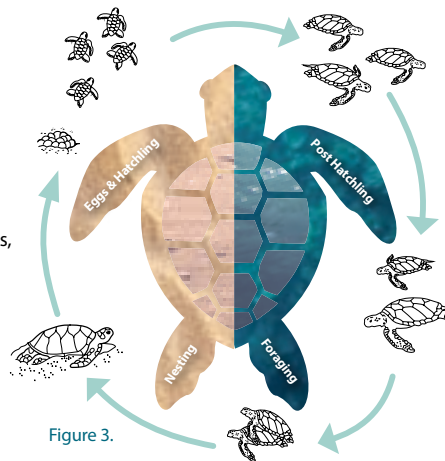


Figure 3.

**Loss or damage to critical habitats** (coral reefs, foraging grounds, migratory passages)

**Natural attrition through predation, disease and failure to thrive** (1:1000 survival rate)

**Poor water quality and marine pollution** (e.g. ingesting litter, increased nutrients, sediments and pesticides)

**Fishing bycatch, entanglement or accidental drowning** in ghost nets, fishing gear (line, net, and pot) and boat collision

**Harvesting of juvenile and adult turtles** for shell and meat (by humans – legal and illegal)



### Theme 1 – Strengthening national and international conservation management

Effective international agreements, national laws, and integrated conservation management programs together with good science on population trends, threats and management needs, provide the safety net to secure marine turtle populations across the Australia and Asia-Pacific region. Priority projects to further strengthen existing arrangements include:

- Flying the flag.** Raising awareness among key regional stakeholders on the need to stop illegal and unsustainable marine turtle trade (e.g. through campaigns and at stakeholder forums). 🌿🌿
- Extending the safety net.** Advocating for stronger ratification, implementation, harmony, and compliance with existing international and national protection mechanisms. Plus, strengthening the regional turtle trade enforcement network to share intelligence and detect and prevent illegal trade and use. 🌿🌿🌿
- Action planing.** Developing new action plans and mechanisms as required at the local, national and international scale to mitigate identified threats. 🌿🌿
- Profiling populations and pin pointing pressures.** Gathering essential scientific knowledge about changes in the size, significance, health, movements, threats and management needs of regional hawksbill populations to fill the gaps and guide recovery efforts. 🌿🌿🌿



### Theme 2 – Building community awareness, involvement and support

Many communities have a strong cultural connection and social dependency on marine turtles. Developing community awareness, promoting involvement and providing support at the local scale are critical to *Bring Back the Hawksbills*. Priority projects to educate and foster community stewardship and capacity include:

- Making the invisible visible.** Evaluating the environmental, economic, social and cultural value of hawksbill turtles to communities, governments, and the private sector and identifying the drivers of poaching to reduce reliance on turtle trade. 🌿
- Don't take my turtle!** Establishing long-term local community-based 'turtle tagging' population monitoring programs that increase ownership and sovereignty (including the development of consistent monitoring guides, on-line data collection tools, and a tag return reward scheme, youth-friendly educational information). 🌿🌿🌿
- Prosperity through protection.** Upskilling local communities to develop poverty reduction or alternative livelihood projects (e.g. ecotourism, mariculture, art) near key hawksbill turtle nesting or foraging sites to reduce the demand for hawksbill turtle shell, meat and eggs and increase sustainable food security (e.g. using microfinancing mechanisms). 🌿🌿🌿
- Rangers to the rescue.** Expanding Indigenous ranger or establishing community-led turtle monitor programs in priority or remote communities to enhance the exchange of cultural/scientific knowledge and empower community management action. 🌿🌿🌿🌿

## Partnership and recovery opportunities

Working with international research and management experts, a range of projects (or actions) to address these life cycle threats, clustered around the four themes, have been identified to *Bring Back the Hawksbills* in the Asia-Pacific region (Figure 4). The region includes Australia, Papua New Guinea, Solomon Islands, New Caledonia and Vanuatu, Timor Leste, Indonesia and Malaysia, Fiji, Philippines, Vietnam, Thailand, Cambodia, China, Japan, and Hong Kong. Investment in the Asia-Pacific region can deliver global benefits, as the region contains many internationally significant hawksbill turtle populations.

While focussed on hawksbill turtles, the suggested projects will benefit many other marine species and habitats. The four high-level themes are mutually supportive and all partnership opportunities can contribute to these outcomes. Because all projects can be delivered at one or many locations, they can be tailored to include elements of several suggested projects to match partner interests and resources. Detailed project plans will be developed with interested partners and additional projects will be identified over time.

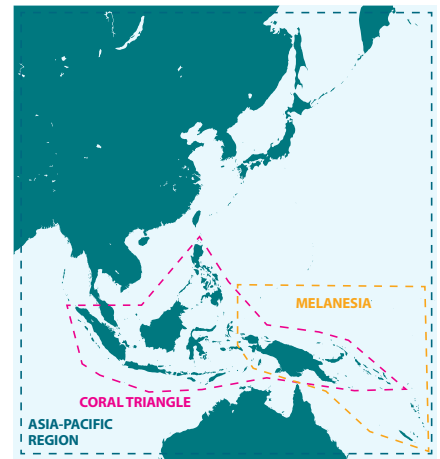


Figure 4.

**🐢 The level of financial investment and in-kind support to recover hawksbill populations is multiple millions of dollars. To reach this ambitious goal, the funding required for each project will vary depending on the nature, scope and time frames. The number of turtle symbols indicates the estimated level of investment required to commence each project (each turtle represents approximately US\$100k). Ongoing funding requirements will be determined in individual project plans. The four themes and 16 potential projects are not in priority order.**



### Theme 3 – Reducing demand and supply so all take is legal and sustainable

Illegal, unreported and unregulated (IUU) take of hawksbill turtles and legal or illegal demand (for meat, eggs and shell) are placing unsustainable pressure on regional populations. Priorities to reduce demand include:

- Fading the trading.** Delivering educational and awareness campaigns at key localities where hawksbill turtle shell, meat and egg product is sold or marketed, and at that country's entry/exit ports to make the purchase of turtle products socially unacceptable. 🐢
- Breaking the supply chain.** Investigating the market supply chain and extent of turtle shell trade (legal and illegal) and working with industry partners to help reduce demand. 🐢🐢🐢
- Picking on poachers.** Expanding community eyes and ears programs (e.g. surveys, online identification and data collection tools) and strengthening mainstream compliance capacity at priority nesting beaches and foraging sites to prevent poaching. 🐢🐢🐢
- Cracking the code.** Using innovative technologies (e.g. satellite transmitters, genetic DNA sampling, tagging, photo identification and new survey methodologies) to profile poorly understood regional hawksbill turtle populations and to trace the origin of legal and illegal shell products. 🐢🐢🐢🐢

### Theme 4 – Restoring the resilience of critical habitats

Hawksbill turtles rely on many critical habitats including coral reefs, nesting beaches, and migratory passages. Priorities to restore the health and resilience of these habitats include:

- Turning the tide.** Restoring habitat resilience by identifying and safeguarding critical beaches, reefs, and migratory passages in well managed marine or Indigenous protected areas. 🐢🐢🐢
- Safer beaches.** Improving access and nesting success at priority nesting beaches by cutting the glow (minimum light standards for coastal development), removing logs and marine debris, and turning down the heat (mitigating temperature rise on key nesting beaches to maintain viable gender ratios e.g. nest shading and relocation). 🐢🐢🐢
- Nest watch and pest off.** Introducing observer and predator control programs at key beaches to reduce mortality and increase nesting success and hatchling production (e.g. visitor management and nest protection). 🐢🐢🐢🐢
- Bye-bye to bycatch and ghost nets.** Expanding the ghost net prevention and recovery program and reducing bycatch through observer programs and fishing gear adjustments (including widespread use of Turtle Excluder Devices (TEDs), and enforcing net attendance. 🐢🐢

## Partnership benefits

*Bring Back the Hawksbills* has been initiated by WWF-Australia in collaboration with supporting organisations following the 2016 Regional Hawksbill Crisis Workshop held in Darwin (see supporting organisations in footnote). This prospectus provides a blueprint to broker partnerships and drive national and regional hawksbill recovery through direct action and investment. It builds on a range of projects and plans operating across the region (see supporting information section for details) and provides an open invitation for potential partners to identify their best possible contribution. While current recovery efforts are important they need to be significantly strengthened and integrated to reduce threats, restore resilience and *Bring Back the Hawksbills*.

Apart from the obvious conservation benefits for hawksbill turtles, with your support the partnership opportunities in this prospectus can:

- Leverage new and emerging technology to resolve hawksbill turtle knowledge gaps.
- Empower local communities, support economic prosperity and strengthen relationships across the region.
- Improve governance, international trade, customs and biosecurity arrangements.
- Enhance ecosystem resilience for the benefit of other marine species and dependent human and ecological communities.

The initiative will attract growing global media interest as the significance of hawksbill turtle recovery is increasingly recognised.

## Contact details

To find out how you can help *Bring Back the Hawksbills* contact:

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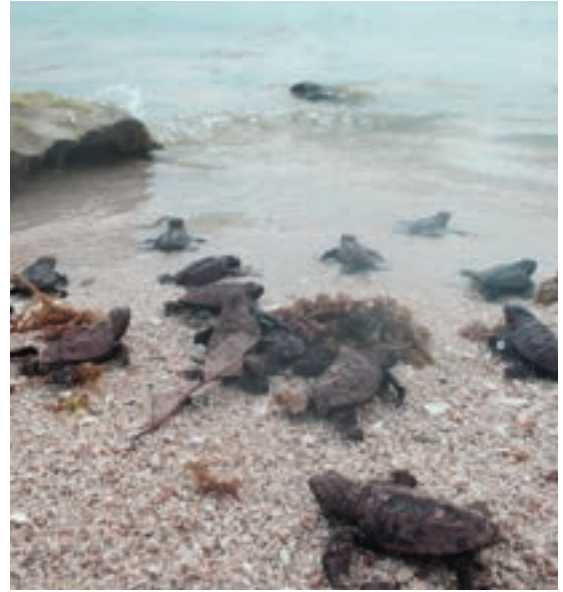
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The Nature Conservancy



**TRAFFIC**  
the wildlife trade monitoring network

### Supporting information

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