

East Melanesian Islands Ecosystem Profile Summary



About CEPF

Established in 2000, the Critical Ecosystem Partnership Fund (CEPF) is a global leader in enabling civil society to participate in and influence the conservation of some of the world's most critical ecosystems. CEPF is a joint initiative of l'Agence Française de Développement (AFD), Conservation International, the European Union, the Global Environment Facility (GEF), the Government of Japan, the John D. and Catherine T. MacArthur Foundation and the World Bank. CEPF is unique among funding mechanisms in that it focuses on high-priority biological areas rather than political boundaries and examines conservation threats on a landscape scale. From this perspective, CEPF seeks to identify and support a regional, rather than a national, approach to achieving conservation outcomes and engages a wide range of public and private institutions to address conservation needs through coordinated regional efforts.

Cover photo left to right:

Biodiversity reserves in the Solomon Islands boast a stunning variety of endemic plants. © AMNH/Michael Esbach
Solomon Islands. © Tom Gruber

The Hotspot

The East Melanesian Islands, which include the island nations of Vanuatu and the Solomon Islands plus the islands region of Papua New Guinea (PNG), qualify as a hotspot due to their high levels of plant and animal endemism and accelerating levels of habitat loss. The chief causes include widespread commercial logging and mining, expansion of subsistence and plantation agriculture, population increase and the impacts of climate change and variability.

As well as being a biodiversity hotspot, the East Melanesian Islands also hold exceptional cultural and linguistic diversity. Vanuatu, for example, has 108 living languages: more per unit area than any other country. Because many languages are spoken by only a few hundred people, they are disappearing, leading to a rapid erosion of traditional knowledge and practice. This is highly significant in a region where most land and resources are under customary ownership and local people are true stewards of biodiversity.

CEPF's investment in the East Melanesian Islands will be guided by an investment strategy, known as an 'ecosystem profile.' The ecosystem profile presents a situational analysis of the context for biodiversity conservation in the East Melanesian Islands, framing an investment strategy for CEPF and other funders interested in strengthening and engaging civil society in conservation efforts in the hotspot. In this way, the ecosystem profile offers a blueprint for coordinated conservation efforts in the hotspot and cooperation within the donor community.



Rennell Island, Solomon Islands.
© Conservation International/photo by Russell A. Mittermeier

Development of the Ecosystem Profile

The ecosystem profile for the East Melanesian Islands Hotspot was developed through a process of consultation and desk study led by the University of the South Pacific, in partnership with the University of PNG and Conservation International's Pacific Islands Program. Initial research and analysis at the regional level provided draft biodiversity and thematic (or contextual) priorities, which were subsequently reviewed by experts within the hotspot. The year-long consultation process involved an expert roundtable meeting and nine stakeholder consultation workshops, and also engaged more than 150 stakeholders from local communities, government institutions and donor agencies.

The ecosystem profile defines a suite of measurable conservation outcomes at the species, site and corridor scales as the scientific basis for guiding CEPF's grant making. These are framed by a situational analysis, including an assessment of the predicted impacts of climate change in the region, as well as reviews of the policy, socioeconomic and civil society contexts for biodiversity conservation. It also includes an assessment of patterns and trends in current conservation investment, which captures lessons learned from past investments in the hotspot, as well as an overview of threats and drivers of biodiversity loss. The conservation outcomes and situational analysis provide the justification for an investment strategy for CEPF in the hotspot.

The investment strategy comprises a set of strategic funding opportunities—termed strategic directions—broken down into investment priorities outlining the types of activities that will be eligible for CEPF funding. Civil society actors may propose projects that will help implement the strategy by fitting into at least one of the strategic directions. The ecosystem profile does not include specific project concepts, as civil society groups will develop these as part of their applications for CEPF grant funding.



Cloud forests of Kolombangara, Solomon Islands.
© AMNH/Christopher E. Filardi

Biological Importance of the East Melanesian Islands Hotspot

The East Melanesian Islands Hotspot is one of the most geographically complex areas on Earth, with diverse islands of varying age and geology. Isolation and adaptive radiation have led to very high levels of endemism, both within the hotspot as a whole and on single islands. Because most of the islands have never been in land contact with New Guinea, their fauna and flora are a mix of recent long-distance immigrants and indigenous lineages derived from ancient Pacific-Gondwanaland species.

The East Melanesian Islands harbor a diverse and unique group of flora and fauna including: 3,000 endemic vascular plants, 41 endemic mammals, 148 endemic birds, 54 endemic reptiles and 45 endemic amphibians. Notable endemic species include the majestic Solomons sea-eagle, several species of flying-fox and the giant, prehensile-tailed Solomon Islands skink.

The hotspot is a terrestrial conservation priority, and habitats include coastal vegetation, mangrove forests, freshwater swamp forests, lowland rainforests, seasonally dry forests and grasslands, and montane rainforests. Continua of natural habitats extend from mountain ridge to reef, albeit fragmented by agricultural conversion and logging in many places. These “ridge-to-reef” ecosystems are notable for their resilience to the effects of climate change and for delivering a wide range of ecosystem services to human communities.

In addition to their terrestrial biodiversity values, the East Melanesian Islands lie partly within the Coral Triangle, whose ecosystems support 75 percent of known coral species and an estimated 3,000 species of reef fishes. Thus, the geographic scope of the hotspot is considered to include nearshore marine habitats, such as coral reefs and seagrass beds, in addition to terrestrial habitats.



Community leadership includes the voices of women in conservation.
© AMNH/Michael Esbach

Conservation Outcomes

CEPF uses conservation outcomes, or biological targets against which the success of conservation investments can be measured, as the scientific underpinning for determining its geographic and taxonomic focus for investment. Conservation outcomes can be defined at three scales—species, site and corridor (or ‘islandscape’)—that interlock geographically through the presence of species at sites and sites in corridors. They are also logically connected: if species are to be conserved, the sites at which they occur must be protected; if these sites are to provide vital ecosystem services, ecological integrity must be maintained at the islandscape scale.

Defining conservation outcomes is a bottom-up process, with species-level targets being set first. The process requires detailed knowledge of the conservation status of individual species. According to the IUCN Red List, 308 species in the East Melanesian Islands Hotspot are threatened with extinction globally. These include 113 terrestrial species, 187 marine species and eight species found in both terrestrial and marine habitats. Recognizing that most species are best conserved through the protection of networks of sites at which they occur, the next step is to define site-level targets, termed Key Biodiversity Areas (KBAs). Ninety-five KBAs have been defined, covering a combined land area of 29,623 square kilometers or 30 percent of the total land area of the hotspot. Only a handful of these sites are included within conventional protected areas, highlighting the unsuitability of government-managed protected areas in a region where 90 percent of the land is under customary ownership.

KBAs are the starting point for defining islandscape-level targets, called conservation corridors. These are defined where it is necessary to maintain or establish ecological connectivity, in order to maintain evolutionary and ecological processes or meet the long-term needs of islandscape species. Four islandsapes have been defined, covering a total land area of 55,662 square kilometers or 56 percent of the total area of the hotspot.



Protecting green turtle (*Chelonia mydas*) nests from predators.
© AMNH/Michael Esbach

Threats

The mainly rural population of the East Melanesian Islands relies heavily on biodiversity for food security and livelihoods. Customary land ownership and resource tenure are constitutionally guaranteed, but boundaries are often in dispute. Rural populations have long been isolated by barriers of geography and language, resulting in a high level of self-reliance but also cultural differences among groups.

Threats to biodiversity have increased in recent decades through expansion of subsistence agriculture and commercial plantations as well as the growth of the logging and mining industries. The underlying drivers of these threats include population growth, urbanization, lack of awareness, unsustainable economic development models and weak governance.

There exist a number of constraints to effective protection of the environment in East Melanesia, including lack of information on biodiversity, capacity limitations among government and civil society, poor understanding of environmental issues among the general population and poor integration of environmental issues into national development planning. Addressing these constraints would go a long way towards providing solutions to the root causes of biodiversity loss within the East Melanesian Islands Hotspot.

Current Investments

Over the last two decades, the hotspot countries have developed National Biodiversity Strategies and Action Plans, and international civil society organizations have established conservation programs there. Significant investments in conservation have been made over this period but have not always delivered the expected results or left a legacy in terms of local capacity and appreciation of conservation objectives.



Two Solomon Islanders carry a green turtle up the beach for tagging on Tetapare.
© Robin Moore

Nevertheless, domestic civil society organizations focusing on biodiversity conservation have begun to emerge in all three countries. In addition, local communities—sometimes with outside support and sometimes independently—have responded to the conservation issues facing them with a range of strategies, often founded on traditional customs and governance arrangements.

The conservation approach to have shown greatest promise in recent years has been community-managed conservation areas, especially locally managed marine areas. However, this requires significant capacity to be built among both community-based organizations and the groups that give them technical support, as well as clear communication and monitoring to ensure that these areas deliver on the overlapping but different goals of communities and conservation organizations. Moreover, there is a need to integrate the goals of conservation areas into plans and policies of other sectors so that they are not undermined by incompatible developments.

The ecosystem profile presents a detailed analysis of conservation investment in the hotspot between 2007 and 2012. At least \$53 million was invested in biodiversity conservation by international donors over this period, plus an estimated \$11 million by national governments. This is equivalent to an annual investment of around \$13 million in biodiversity conservation across the hotspot, which is a very small amount considering the scale of threats to biodiversity. In addition, most major investments were in marine conservation, leaving terrestrial conservation conspicuously underfunded.

Of the conservation investments made by international donors during 2007-2012, bilateral agencies, including the governments of the United States, Japan and France, provided around half of the total. Multilateral agencies—including the GEF, the European Union and the United Nations Development Programme (UNDP)—provided a further two-fifths. Investment from private foundations and funds was relatively less but this is considered to be a particularly important source of funding for civil society organizations, especially local and grassroots groups, as it is flexible and relatively accessible. Similar characteristics are credited to the GEF Small Grants Programme, managed by UNDP.



Solomon Island eyelash frog (*Ceratobatrachus guentheri*).
© Piotr Naskrecki

CEPF Niche

The niche for CEPF investment in the hotspot was defined through an extensive process of stakeholder consultation, supported by a detailed analysis of gaps and trends in conservation investment. The CEPF niche recognizes local communities and their organizations as the ultimate custodians of the biodiversity of the East Melanesian Islands Hotspot, with support from national and international NGOs, universities and private companies, and within an enabling regulatory and institutional context established by government.

The complementary capacities of different sections of civil society will be leveraged in support of local communities by catalyzing partnerships. Through these partnerships, communities and civil society organizations at different levels will develop and implement conservation actions that are led by and relevant to local communities. To respond to threats originating outside of the community, such as commercial logging and plantations, civil society will be supported to integrate biodiversity conservation into local land-use and development planning.

Drawing on lessons learned from past conservation programs in the region, conservation interventions will be developed gradually. This will allow sufficient time for trust and understanding to be built among partners, for capacity and knowledge to be transferred, and for long-term funding to be secured. There will also be an explicit focus on capacity building for local and national civil society through partnerships, networks and mentoring. To allow sufficient time for the development of effective partnerships, enduring capacity and sustained on-the-ground results, the CEPF investment period will be for eight years rather than the usual five.



Coastal forest and tropical reef.
© Jeff Yonover

CEPF Strategic Directions and Investment Priorities



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STRATEGIC DIRECTION

Safeguard priority globally threatened species by addressing major threats and information gaps.



INVESTMENT PRIORITIES

- Conduct research on six globally threatened species for which there is a need for greatly improved information on their status and distribution.
- Develop, implement and monitor species recovery plans for species most at risk, where their status and distribution are known.
- Introduce science-based harvest management of priority species important to local food security.

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STRATEGIC DIRECTION

Increase local, national and regional capacity to conserve biodiversity through catalyzing civil society partnerships.



INVESTMENT PRIORITIES

- Strengthen the capacity of local and national civil society organizations in financial management, project management and organizational governance.
- Provide core support for the development of civil society organizations into national and regional conservation leaders.
- Strengthen civil society capacity in conservation management, science and leadership through short-term training courses at domestic academic institutions.

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STRATEGIC DIRECTION

Provide strategic leadership and effective coordination of conservation investment through a Regional Implementation Team.



INVESTMENT PRIORITIES

- Operationalize and coordinate CEPF's grant-making processes and procedures to ensure effective implementation of the investment strategy throughout the hotspot.
- Build a broad constituency of civil society groups working across institutional and political boundaries towards achieving the shared conservation goals described in the ecosystem profile.

CEPF Investments

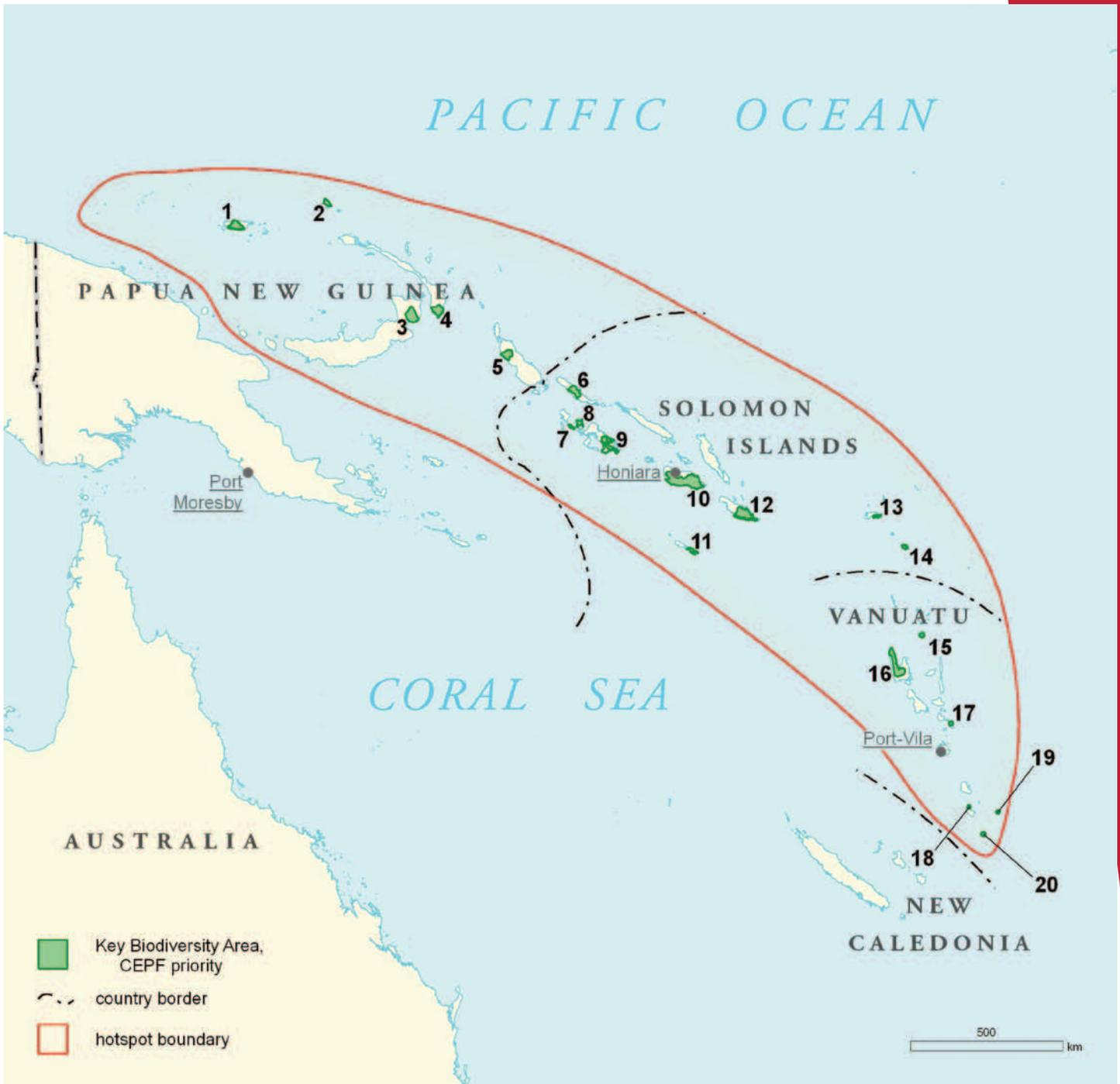
CEPF investment will be targeted where it can make the greatest and most sustained contribution to the conservation of globally important biodiversity in the East Melanesian Islands Hotspot, within the context of other investments by governments, donors and civil society.

To this end, 20 priority sites have been selected from among the full list of KBAs, based on an initial biological prioritization, followed by the application of expert opinion. The priority sites comprise five KBAs in PNG, nine in the Solomon Islands and six in Vanuatu, covering a total area of 1.5 million hectares. While the priority sites are principally terrestrial conservation priorities, 11 of them contain significant areas of marine habitat, creating opportunities for ridge-to-reef conservation.

In addition, 48 priority species have been selected from among the full list of globally threatened species in the hotspot, comprising 20 mammals, 11 birds, five reptiles, two amphibians and 10 plants. The purpose of selecting priority species was to enable investments in species-focused conservation action to be directed at those globally threatened species whose conservation needs cannot adequately be addressed by habitat protection alone. In most cases, the additional action needed is control of overexploitation.



The forests of Kolombangara, within the largest terrestrial protected area in the Solomon Islands.
© AMNH/Michael Esbach



CEPF PRIORITY SITES

- | | |
|--|--------------------------|
| 1. Central Manus | 11. East Rennell |
| 2. Mussau | 12. East Makira |
| 3. Baining Mountains | 13. Nendo |
| 4. Cape Saint George | 14. Vanikoro |
| 5. Kunua Plains and Mount Balbi | 15. Gaua |
| 6. Mount Maetambe – Kolombangara River | 16. Santo Mountain Chain |
| 7. Gizo | 17. Tongoa – Laika |
| 8. Kolombangara Upland Forest | 18. Green Hill |
| 9. Marovo Kavachi | 19. Futuna |
| 10. Guadalcanal Watersheds | 20. Aneityum |

Moving Forward

The East Melanesian Islands present CEPF with a major opportunity to support biodiversity conservation in ways that deliver significant, meaningful benefits to local communities. To be successful, however, this will require an engagement longer than the typical five-year investment period, a commitment to capacity building at multiple levels and a readiness to align global biodiversity priorities with local cultural and development priorities.

The successful implementation of the CEPF investment strategy will require time, persistence and, above all, a commitment to genuine and lasting partnership. The cooperation and common vision that has been witnessed through the ecosystem profiling process inspires confidence that such success will be achieved.



Coconut crab (*Birgus latro*).
© Piotr Naskrecki



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Solomon Islands frogmouth (*Rigidipenna inexpectata*). © Guy Dutton



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