

ACTION PLAN

NEW CALEDONIA

AUGUST 2014 → JANUARY 2018

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Pacific
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du Pacifique

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PACIFIC COMMUNITY (SPC) NOUMEA
NEW CALEDONIA / 2017

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KEY FIGURES

NEW CALEDONIA

269,000
inhabitants

10%
of world nickel
deposits

1623 m
highest peak
(Mount Panie)

18,600 sq. km
in land area

XPF **3.5**
million:
per capita GDP

BIODIVERSITY AND ECOSYSTEMS

3400 km
coastline

106
endemic reptile
species, i.e. 1%
of the world's reptile
population

3400
plant species,
74% of which
are endemic

24,000 sq. km
of lagoon
2nd largest lagoon
in the world, 60%
of which is UNESCO
World Heritage listed
1700 reef fish species

1700
reef fish species

INTEGRE IN THE PACIFIC OVERSEAS COUNTRIES AND TERRITORIES

XPF **1.43**
billion budget,
i.e. EUR 12 million

4
OCTs
French Polynesia,
New Caledonia,
Wallis & Futuna
and Pitcairn

9
pilot sites

5
people coordinating
the project at SPC

50
partners

INTEGRE PROJECT IN NEW CALEDONIA

16,505 sq. km
(including 4590 sq. km
of land): coastal areas cove-
red by the project

3
pilot sites: Great
Southern Lagoon,
Ouvea & Beautemps-Beaupre
atolls and the north-eastern
coastal area

XPF **258**
million budget,
i.e. 2.25 million euros

50
funded activities

HIGHLIGHTS

New Caledonia's marine and coastal areas bustle with human activities and are one of its most powerful potential economic levers. They are also host to a natural heritage that is recognised worldwide as outstanding. But this heritage, shaped over 35 million years of geographical isolation, is now seriously jeopardised by human activities. Natural environment destruction, introduced invasive species and increased resource use have heavily eroded local biodiversity. As a result, managing and preserving these coveted but fragile environments is a vital sustainable-development challenge for New Caledonia.

Integrated coastal management is a development approach recommended by international and European agreements and is about sustainably using coastal areas by striking a balance between social and economic development and natural and cultural heritage conservation for the good of present and future generations.

INTEGRE provides support to integrated coastal management (ICM) initiatives in the four European Pacific overseas countries and territories (OCTs) and promotes ICM in the Pacific, with funding of some EUR 12 million (XPF 1.43 billion) from the European Union. The project, which runs from 2013 to 2018, is driven by French Polynesia, New Caledonia, Wallis & Futuna and Pitcairn so as to fo-

cus on supporting sustainable environmental management initiatives.

INTEGRE's regional activities focus on strengthening regional cooperation in integrated coastal management and promoting sustainable development for the benefit of communities.

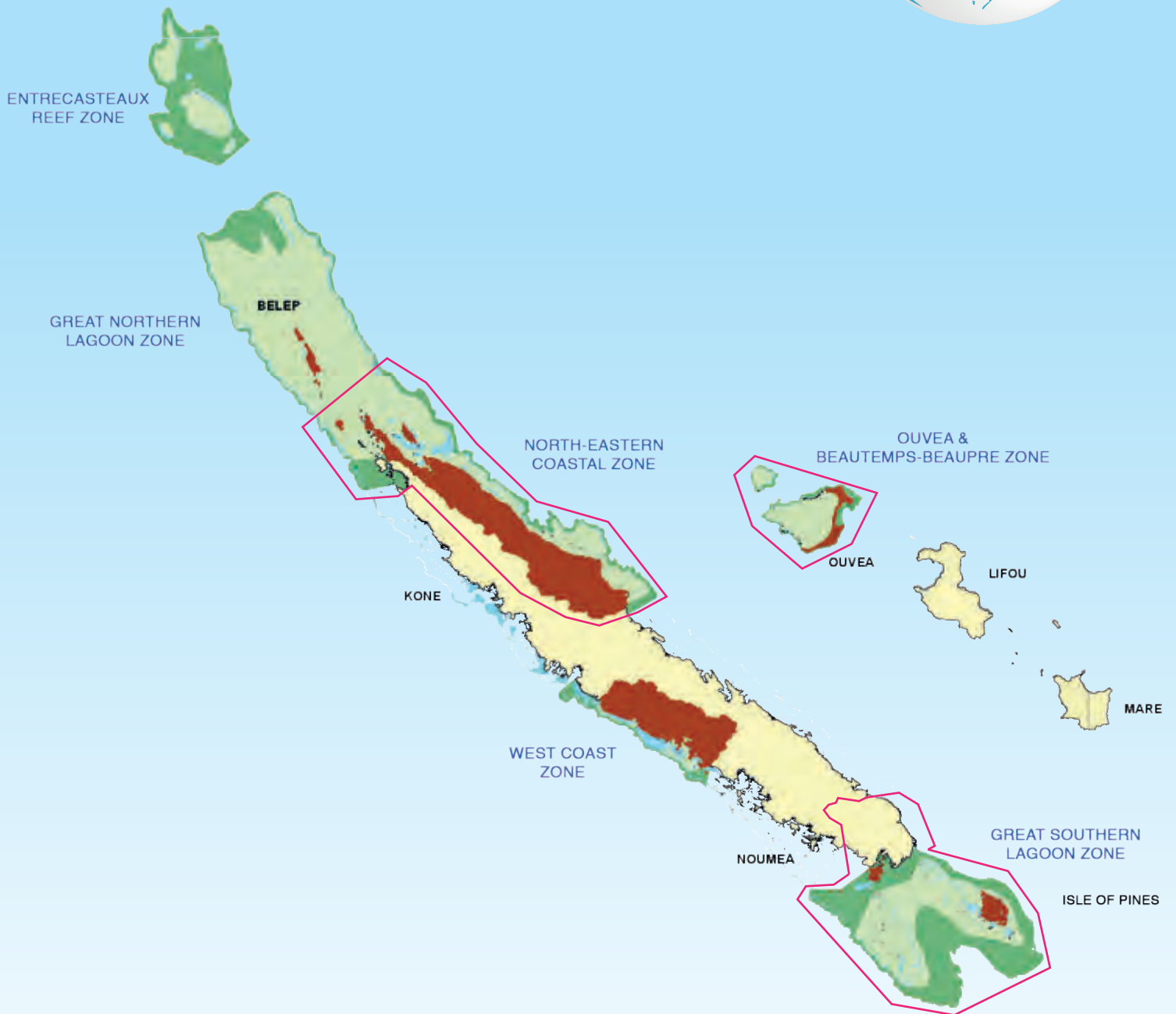
In New Caledonia, INTEGRE is strengthening the participatory integrated management initiatives set up by the provinces in the UNESCO World-Heritage-listed New Caledonia Lagoon serial property. It focuses on three pilot sites, i.e. the Great Southern Lagoon, Ouvea & Beautemps-Beaupre atolls and the north-eastern coastal area.

The various activities carried out with local stakeholders are aimed at:

- strengthening participatory management;
- helping reduce impacts;
- rationalising environmental policy;
- showcasing the natural heritage; and
- drawing on lessons learnt and disseminating the knowledge acquired during the project.

Other activities are being carried out in the territory in specific areas, namely organic farming, climate change, and capacity building for UNESCO property managers.

MAP OF NEW CALEDONIA SHOWING INTEGRE PILOT SITES

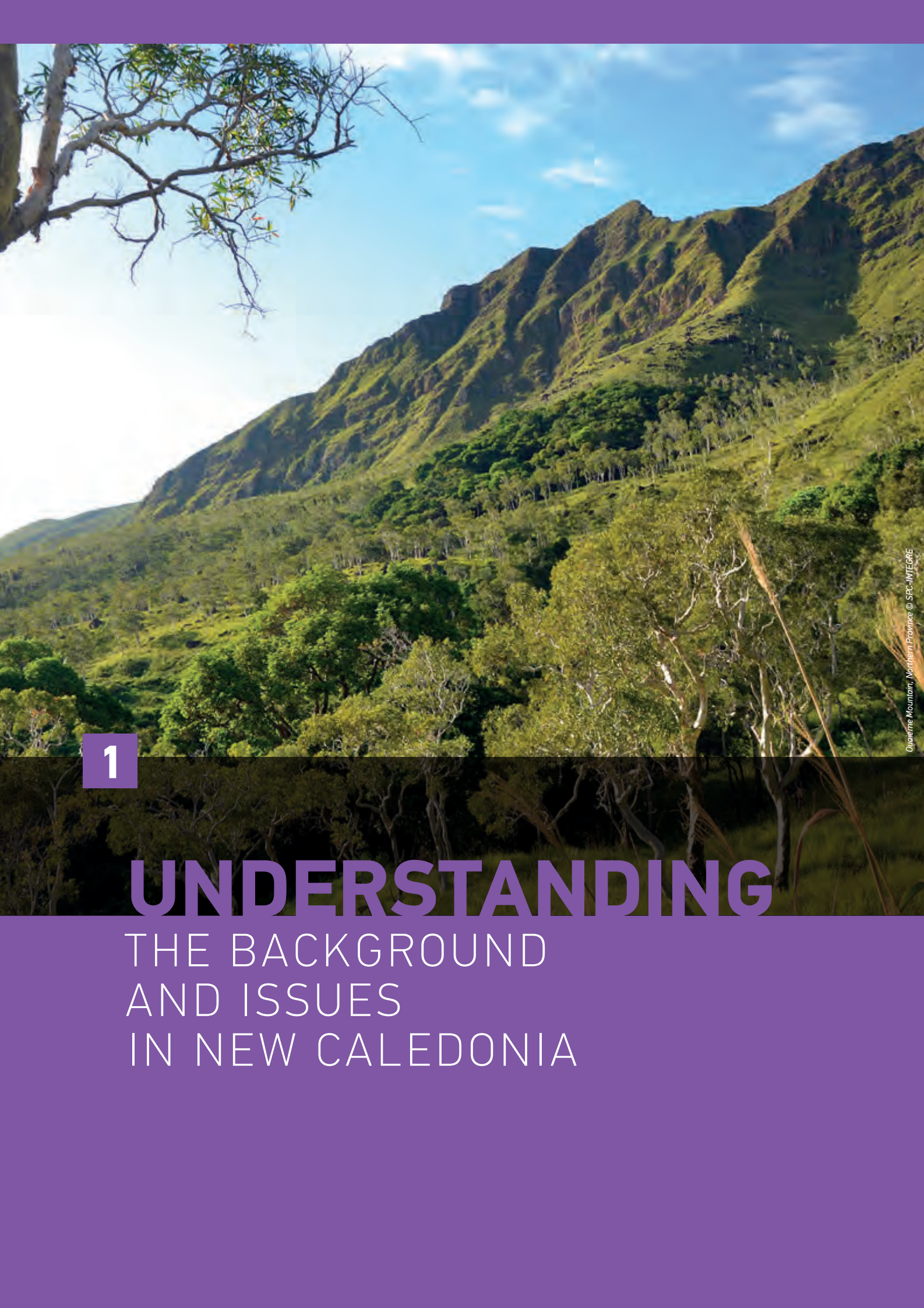


Key:

- INTEGRE pilot site
- World-Heritage listed marine buffer zone
- Marine buffer zone
- Terrestrial buffer zone

0 25 50 100 150
kilomètres





Ouvéa Mountain, Northern Province © SRC-INTEGRE

1

UNDERSTANDING

THE BACKGROUND AND ISSUES IN NEW CALEDONIA

NEW CALEDONIA'S ORIGINALITY AND UNIQUENESS

New Caledonia's marine and coastal environments bustle with human activities and are one of its most effective potential economic levers. They are also host to a natural heritage that is recognised worldwide as outstanding and so, managing and preserving these coveted and fragile environments is a key sustainable-development challenge for New Caledonia. An overview of the forces at work there is provided below.

GEOGRAPHY

THE "ROCK" OF THE SOUTH PACIFIC

Located some 1200 km east of Australia, the New Caledonian island group is made up of a mountainous main island (400 km long and 50 km wide), nicknamed "The Rock" (le Caillou in French) because of its large nickel deposits, and several smaller low islands, namely the Loyalty Islands some 100 km to the east, consisting of Ouvea, Lifou, Mare and Tiga; the Isle of Pines to the south, and the Belep Islands to the north. The Chesterfields and d'Entrecasteaux reefs lie 550 km to the southwest and 180 km to the northwest respectively. With a coastline some 3400 km long and a maritime domain spanning over 1.7 million sq. km, New Caledonia has one of the Pacific islands' largest land and sea areas. Its subtropical climate is regularly affected by the El Niño (drier, cooler periods) and La Niña (wetter, warmer periods) phenomena and New Caledonia has experienced several destructive cyclone events in the past.

POPULATION

70% OF THE POPULATION LIVES NEAR THE COAST

Of New Caledonia's 269,000 inhabitants (ISEE [Bureau of Statistics] 2014), 70% live on the main island less than a kilometre from the shores. Several communities live side by side in the territory, including Kanaks (40% of the population), Europeans (30%) and Wallisians & Futunans (10%). The population is essentially urban with Noumea being home to two-thirds of it. The human development indicator (HDI), combining life expectancy, access to education and per-capita GDP, is high at 0.869. The population is young with a third of New Caledonians aged under 20 years.

GOVERNANCE

NATURAL HERITAGE MANAGEMENT IS DRIVEN BY THE PROVINCES

New Caledonia is a French overseas territory with a unique status within the French Republic. It is *a sui generis* "collectivité" (partly self-governing entity or area) instituted by the Organic Act of 1999 following the Noumea Accord granting it broad autonomy. Local government bodies consist of a congress, territorial government, three provincial governments, a customary senate, the Economic Social and Environmental Council (CESE), 33 municipalities and eight traditional leaders' councils representing the traditional districts that are home to 340 tribal groupings. The High Commissioner represents the French Government, while two National Assembly members, two senators and a European MP represent New Caledonia in the French national and European parliaments. In 2018, New Caledonians will vote in a referendum on full sovereignty.

Natural heritage management and environmental conservation are essentially governed by the three provinces, which have departments of the environment staffed by nearly 160 people altogether and an arsenal of regulations adjusted to the local context, i.e. three environment codes. The New Caledonian Government regulates border health controls, manages the exclusive economic zone (EEZ), e.g. the Coral Sea Nature Park, and enforces international law and treaties.

"The provinces have departments and regulations that are tailored to the local context"

ECONOMY

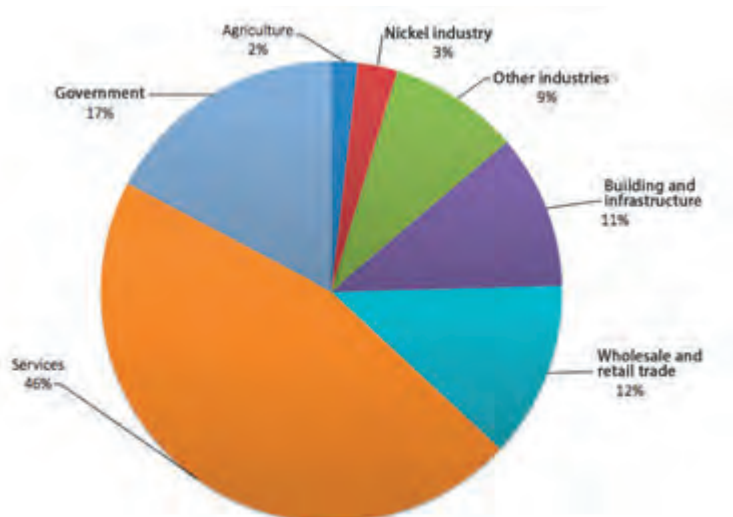
THE COAST AS AN EFFECTIVE ECONOMIC LEVER

A host of human activities occurs in New Caledonia's marine and coastal areas, including housing, shipping, tourism, agriculture, fisheries and aquaculture, and those areas are one of its most effective economic levers. With an estimated per-capita GDP in 2014 of XPF 3.5 million (EUR 29,300), New Caledonia ranks third among the South Pacific economies, behind Australia and New Zealand, on a par with middle-ranking European countries. It holds 9% of the world's nickel deposits and its economy is heavily affected by nickel mining in terms of direct, indirect and induced jobs, as evidenced by its three harbours dedicated to ore exports and three nickel plants, namely SLN in Noumea, Vale in the South and Koniombo Nickel in the North, for high added-value metal processing. Although nickel accounts for 90% of the country's exports, its share of the GDP varies depending on nickel prices, contributing 17% during the 2007 nickel boom, but 3% in 2015, for example.

Today, 80% of the country's wealth is generated by the service sector, with the public sector employing nearly a third of New Caledonia's work force. Local processing and agro-food and cottage industries are expanding every year and, with 1200 businesses and 8000 jobs, New Caledonia is one of the best endowed of all of France's overseas possessions. Cash-crop agriculture's share of the GDP is fairly small at 2% and unable to meet local needs. Visitor numbers have remained low, despite major investments, with 114,000 tourists arriving by air and 437,000 by cruise ship in 2015. The country's

natural and cultural heritage is nevertheless an attractive asset and one of the most promising development areas. Fishing and aquaculture are expanding, but not yet very well organised with 2800 tonnes of fish caught at sea and 1600 tonnes of prawns produced on aquafarms in 2014. Biodiversity development, the economy of the sea and renewable energy are future industries in which New Caledonia could be genuine innovation hub.

Added value broken down by sector



Sources: ISEE (Statistics Bureau) 2015, Economic Accounts, CEROM (early accounts for overseas territories)



Noumea Port © SPC-INTEGRE

BIODIVERSITY

OUTSTANDING ENVIRONMENT

New Caledonia's biodiversity and land and marine ecosystems are recognised worldwide as outstanding. The country has the second-largest coral barrier reef in the world after Australia's Great Barrier Reef and the lagoon it encloses is home to a very large amount of biodiversity between the mangrove and reef slope, with nearly 1700 species of coastal fish, more than 2000 molluscs, 450 seaweed and flowering plant species, 300 reef-building coral species and nearly 260 echinoderms (sea urchins and starfish). Some 25 marine-mammal species, including the humpback whale and dugong, live seasonally or permanently in New Caledonia's waters. In 2008, 60% of New Caledonia's lagoon's surface area was UNESCO World-Heritage listed, requiring the local authorities to preserve the entire six promoted sites.

"60% of New Caledonia's lagoon is UNESCO World-Heritage listed"

On land, there are nearly 3400 species of flora, 74% of which are endemic, living in four main ecosystems, namely mangrove, dry forest, mine scrub and dense rainforest, that are home to some equally remarkable fauna. New Caledonia is, in fact, a reptile sanctuary, since the island group hosts 1% of the world population with approximately 100 described species, including geckos and lizards, and 90% endemism.

Such incredible diversity is due to the island group's geological history, as New Caledonia is a fragment of Gondwana (a super-continent made up of Africa, Australia, Arabia, India, South America and Antarctica 600 million years ago) that broke off Australia. It was submerged as it moved towards its current location and the original Gondwanan flora became totally extinct as a result. During the process, the New Caledonian main island was partly covered in ophiolites (rocks from the Earth's crust) made up of ultramafic rock, from which the soil covering approximately a third of the island's surface area is derived. The island was gradually recolonised by dispersed seeds from neighbouring lands.

MANMADE THREATS

However, this heritage, crafted by 37 million years of geographic isolation, is now highly endangered by human activities. The destruction of natural environments through mining, urban sprawl, fire or farming as well as the introduction of invasive species, such as pigs, deer, rats, fire-ants, feral cats, myconia and white lead trees along with increased natural-resource harvesting, e.g. hunting and fishing, have led to major local biodiversity erosion. In order to preserve these outstanding natural assets and sustainably develop them for future generations, the authorities have been introducing ever more stringent environmental policies. They have been combining regulatory approaches with integrated management to strike a balance between the various local uses.



Humpback whale *Megaptera novaeangliae* © OC



Marmorosphaera toom ©IRD-IMBE/Marc Manceau

Did you know?

New Caledonia is one of the 34 world biodiversity hotspots because it has such a high concentration of endemic species and such high threat levels.



Oxera nerijfolia © E. Bonnet-Vidal



Clownfish © SPC - INTEGRE



Loggerhead sea turtle *Caretta* © SPC - INTEGRE



Cagou *Rhinoceros jubatus* © E. Bonnet-Vidal

A photograph of two young Indigenous children, likely from the Torres Strait Islands, wearing traditional thatched hats and having white body paint on their chests. They are holding a large, oval-shaped basket woven from green palm leaves. The background shows other people in traditional clothing. A purple banner is at the bottom with white text.

2

INTEGRE PROJECT

IMPROVING INTEGRATED
COASTAL MANAGEMENT FOR
THE BENEFIT OF COMMUNITIES

SUSTAINABLY MANAGING ISLANDS AND COASTAL AREAS





The human footprint on natural coastal environments is increasing, causing disturbances that are jeopardising mankind's ability to access available resources, develop sustainable economic activities and preserve our traditions. A number of approaches that could help sustainably manage the environment are discussed below.

CHALLENGES

A COVETED HERITAGE

OCT coastlands and islands are where human populations live, levers for economic development and environmental-ly and culturally high-value natural heritage. They draw on a number of monetary, heritage-related, aesthetic and spiritual

resources (cf. table below) and one of the major challenges is managing to fully preserve this capital by strengthening its assets while reducing threats to such coveted areas.

COASTLAND CAPITAL			
 Economic assets	 Biological and ecological assets	 Cultural and intangible assets	 Threats
<ul style="list-style-type: none"> • Tourism • Fishing • Agriculture • Aquaculture • Industries • Trade, ports • Real estate • BTP • Public services • Raw materials 	<ul style="list-style-type: none"> • Outstanding ecosystems (e.g. forests, coral reefs, mangroves) • Endemic biodiversity • Rare species • Iconic species (e.g. humpback whales, manta rays) • Ecological services: e.g. water purification, carbon cycle, climate regulation, pollination 	<ul style="list-style-type: none"> • Traditional Pacific-islander knowledge • Scientific knowledge • Listed features: UNESCO World Heritage, RAMSAR, etc. • Beautiful landscapes, Sacred places • Leisure, well-being 	<ul style="list-style-type: none"> • Pollution • Habitat destruction • Invasive species • Resource overuse overuse • Biodiversity loss • Ecosystem disturbances and loss of ecosystem services • Climate change • Loss of cultural values • Natural disasters (e.g. tsunamis, tropical cyclones)

MANAGEMENT

SUSTAINABLY MANAGING THIS COMMON HERITAGE

In an environment with so many unique economic, social and environmental factors to contend with, sustainably managing common resources for the well-being of all its users is a vital concern. How can different interests and uses be reconciled? How can public support and involvement be elicited around common projects without causing tensions and frustration? New approaches and territorial governance forms that involve local stakeholders

and users in the decision-making process are increasingly being used to meet this challenge. They are based on a democratic, participatory model and aim at developing local solidarity, overcoming initial ill-feelings, finding consensus-based solutions, building a shared vision and sharing the benefits fairly. Integrated management and local development are two of the participatory models promoted and implemented by INTEGRE.

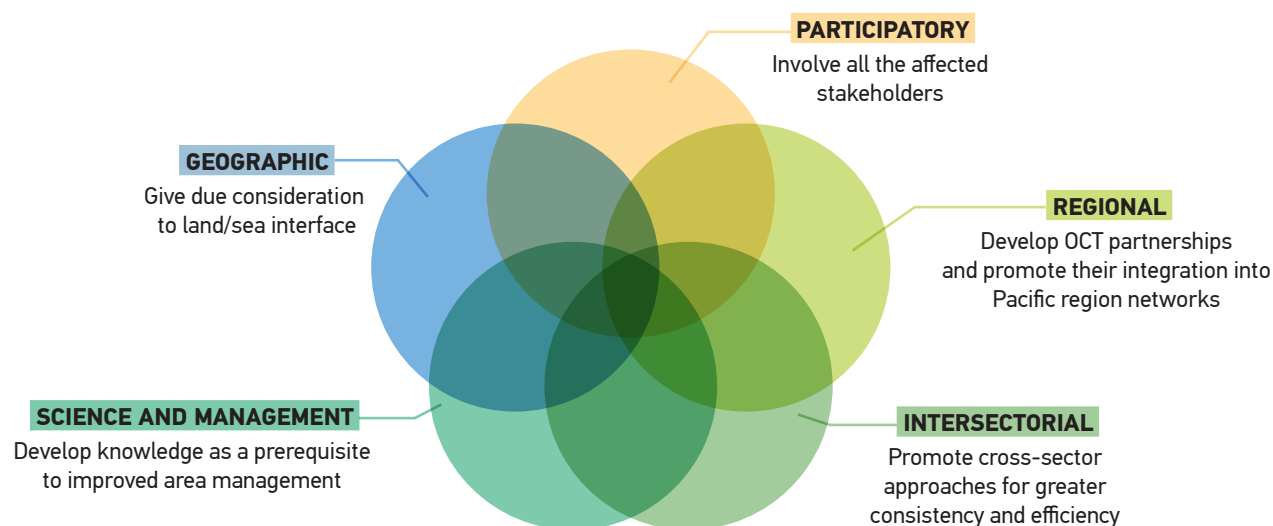
DEFINITIONS

INTEGRATED COASTAL MANAGEMENT

Integrated coastal management (ICM) involves sustainably using an area (land, shore or sea) or resource (e.g. water, forests and lagoons) by involving local stakeholders in the decision-making process and reconciling social and economic development with natural and cultural heritage conservation.

ICM takes a global ridge-to-reef view of coastal areas and works to intertwine the visions of the various economic, environmental, social, cultural and scientific sectors.

It serves as a collaboration and planning tool as well as a way to help prioritise uses and management measures while integrating cultural reference points and traditional knowledge. ICM encourages sustainable development initiatives by drawing on success stories elsewhere and requires local stakeholders to jointly define their objectives with sufficient community support to be legitimate, accepted and abided by. Over the past 20 years, ICM has been implemented in a number of programmes in the South Pacific.



“Integrated coastal management (ICM), is a territorial governance tool for sustainable development and resilience to global change.”

SUSTAINABLE LOCAL DEVELOPMENT

Local communities can sometimes find the notion of integrated coastal management difficult to embrace, either because they do not understand it or view it as remote from their day-to-day concerns. On islands, all land is a “coastal zone” that receives inputs from the mountains to the reefs and so “integrated island management” resonates better with communities. In the islands, this

approach can be seen as “sustainable local development”, which may be more readily understood and accepted. It is defined as a previously-discussed and shared strategy that aims to create social, economic, cultural and environmental harmony among all the stakeholders, who interact in a specific human-scale region without jeopardising their future well-being.

INTEGRE

INTEGRE (French acronym for Pacific Territories' Initiative for Regional Management of the Environment) provides support for integrated coastal management (ICM) initiatives in the four European Pacific overseas countries and territories (OCTs) and promotes ICM in the Pacific region.

PROJECT OBJECTIVE

INTEGRE is a participatory project for implementing new governance forms and developing an activity programme designed and monitored by a large number of partners. Its main objective has both regional and local components: helping manage or sustainably develop OCT environments for the benefit of their communities.

*"Helping manage
or sustainably develop
OCT environments
for the benefit
of their communities"*

REGIONAL COMPONENT

Pacific OCTs seldom turn to the regional organisations they belong to for help. There is fairly little discussion or collaboration between them, despite the regional environmental challenges they face. The project's regional component aims to strengthen regional cooperation in sustainable development and ICM matters and consists of two main activities:

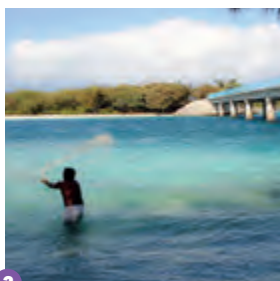
- **Creating forums for exchanges and collaboration between the OCTs** and between them and the region's other countries by holding regional sector-based workshops to share experience in terms of sustainable tourism and organic farming, etc., providing regional expertise for OCTs in hazardous-waste management, etc. and holding bilateral exchanges between OCTs and between them and other countries in the region.
- **Improving OCT input to regional exchange and collaboration networks** by taking part in regional cooperation work, creating exchange mechanisms, showcasing lessons learnt through result maximization and reporting and by incorporating existing regional networks such as in organic farming, etc. Progress on regional work is indicated in follow-up tables published in annual progress reports.

NEW CALEDONIA



1

New Caledonia's Southern Tip
INTEGRE aims to strengthen UNESCO management-committee's involvement in the Great Southern Lagoon management plan, improve knowledge and management of visitor traffic and recreational uses in marine and coastal areas and hold discussions on a sustainable development strategy for the southern tip of the main island.



2

Beautemps-Beaupre and Ouvéa atolls
INTEGRE is providing assistance for operationally implementing management of the UNESCO World-Heritage-listed site. The Loyalty Islands Province, traditional leaders and associations, assisted by scientists, have joined forces to tackle erosion and invasive-species regulation, provide awareness training and showcase the island's iconic sites so as to support ecotourism development.



3

North-eastern coastal area
INTEGRE is assisting the Northern Province and local management committees strengthen participatory management of this UNESCO World-Heritage listed site. Lagoon-health monitoring, waste-management and watershed-restoration activities are being conducted with local stakeholder involvement.

WALLIS & FUTUNA



4

Wallis Island and its lagoon
INTEGRE is assisting with implementation of a sustainable development strategy for the island's communities in areas identified as priorities, such as water-resource preservation and shoreline protection.



5

Futuna
INTEGRE is helping sustainably manage and develop the environment to preserve the pristine setting and the quality of the territory's environments. INTEGRE is assisting the communities in areas identified as priorities, such as waste management, water-resource preservation and shoreline protection and restoration.

LOCAL COMPONENT

Small-scale trials through action and ownership are an approach that local stakeholders view as tangible, so each territory proposed a selection of pilot sites where INTEGRÉ could provide support to local experiments and the communities could play an active role in their own development.

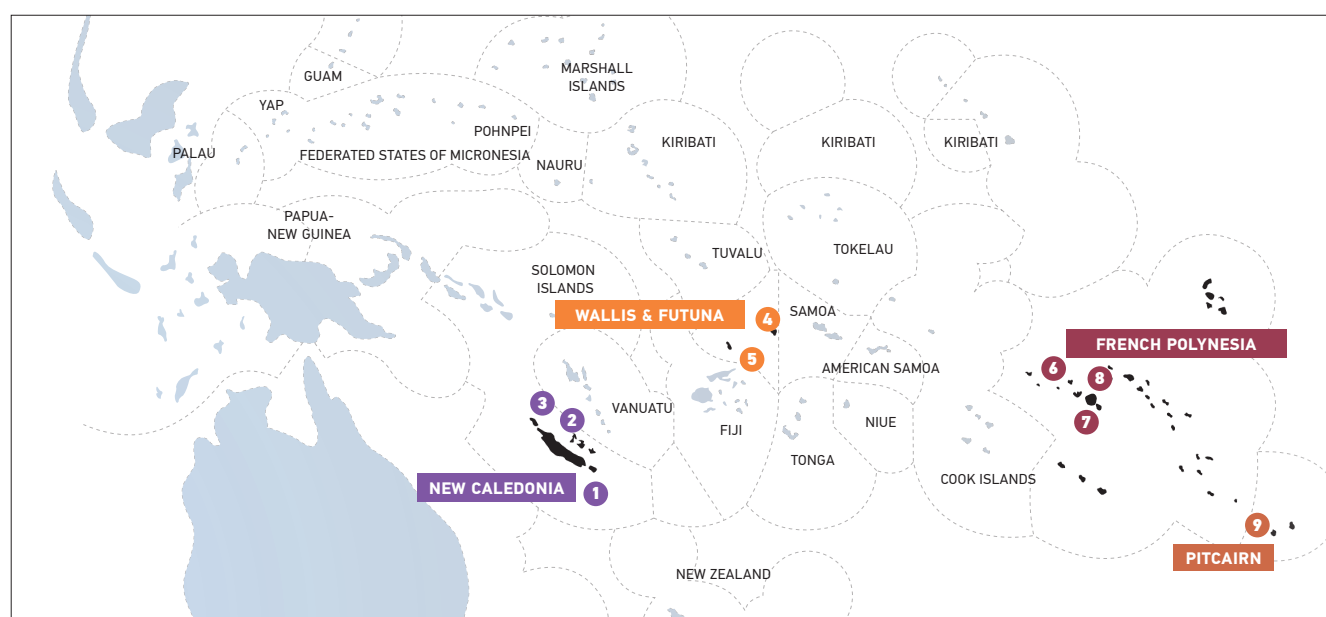
The local component involves conducting experimental ICM and development projects on a total of nine pilot sites and the projects follow a framework, i.e. a local action plan developed closely with partners at the site.

The local component involves:

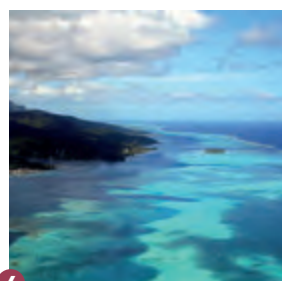
- conducting small-scale experimental ICM and development projects on pilot sites
- improving environmental-management governance

Lessons learnt on the ground under the local component are fed back into the regional component and the methods and results maximized and promoted in the Pacific. Progress on regional work is indicated in follow-up tables published in annual progress reports.

THE NINE PILOT SITES



FRENCH POLYNESIA



6

Raiatea-Taha'a islands and their lagoon

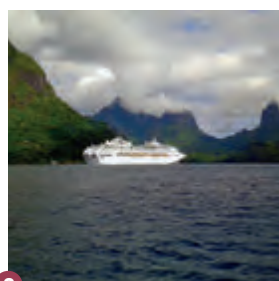
INTEGRÉ is providing assistance to the islands' sustainable economic development in agriculture, fisheries and tourism and support for reducing pollution from business operations and developing sustainable economic activities



7

Tahiti Peninsula

INTEGRÉ is helping develop sustainable lagoon use on this site by reducing human pressure and developing sustainable and innovative economic activities.



8

Opunohu Bay and Valley

INTEGRÉ is helping develop sustainable tourism by implementing environmental protection activities on the site, developing ecotourism and improving the community's living standards.



9

Pitcairn Islands

INTEGRÉ is helping develop and promote this remote and historically-significant island group in three main areas, i.e. waste management and recycling, soil-erosion control and sustainably promoting natural and cultural heritage features.

PITCAIRN

LOGFRAME

A logframe is a project management tool recommended by donors, including the European Union, which provides consistency between the various project levels by stating clearly-defined objectives and the expected activities and outcomes. It can be used to:

- identify the resources required for achieving the objectives
- monitor project progress and assess the results

The project's two-tier (regional and local) structure is based on a sequence of objectives, activities and expected outcomes and so each activity can contribute to attaining several objectives. External reviews organised and funded by the European Commission are scheduled at different stages in the project.



INTEGRE can be summarised as follows:

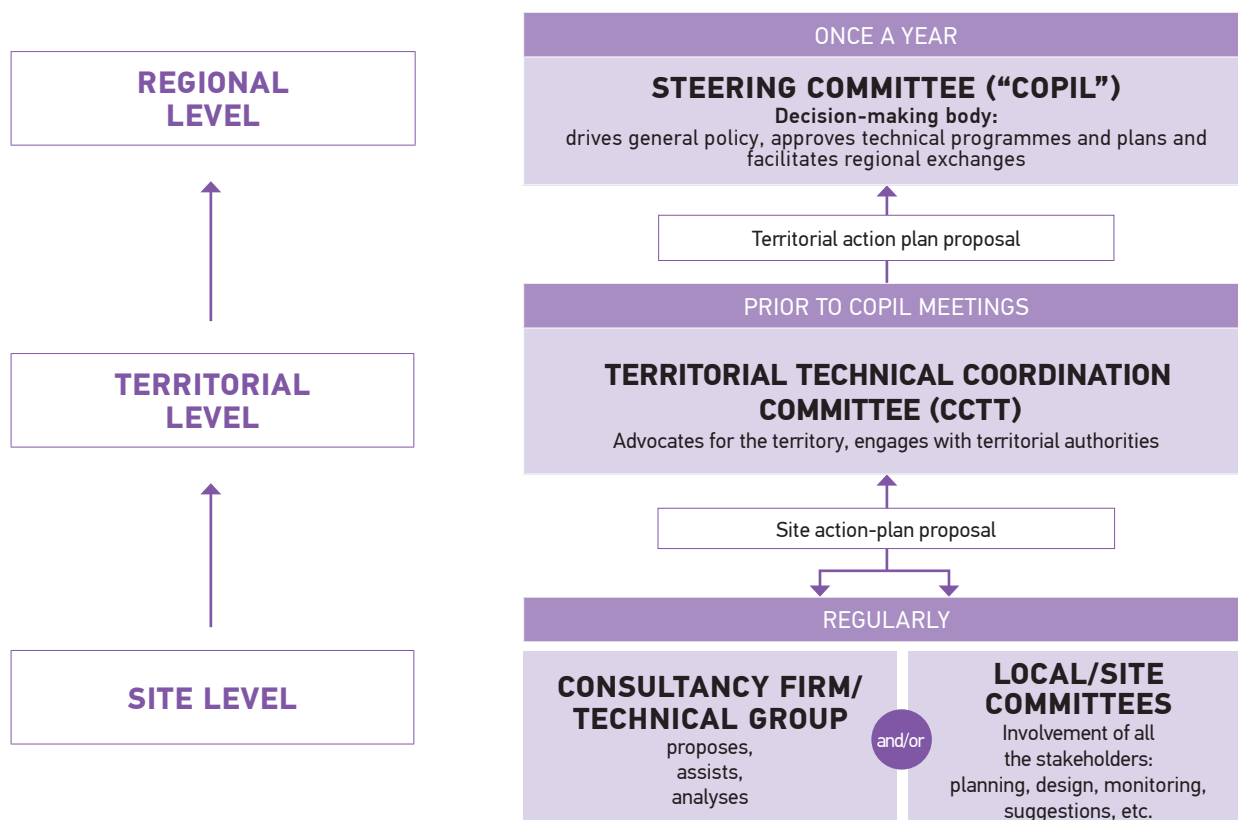
OVERALL OBJECTIVE	HELPING MANAGE OR SUSTAINABLY DEVELOP OCT ENVIRONMENTS FOR THE BENEFIT OF THEIR COMMUNITIES			
SPECIFIC OBJECTIVES	REGIONAL COMPONENT Strengthen regional ICM cooperation		LOCAL COMPONENT Develop and implement an ICM plan based on the territory's sustainable development issues	
EXPECTED OUTCOMES	Set up forums for OCTs to meet and work with each other and with other countries in the region	Improve OCT input to regional exchange networks	Improve environmental management governance	Locally implement ICM activities
ACTIVITIES	<ul style="list-style-type: none"> • Organise regional technical workshops • Regional technical consultancies • OCT and OCT/ACP bilateral exchanges 	<ul style="list-style-type: none"> • OCT input to regional strategic documents • Develop tools for regional exchanges • Project result-maximization and communication 	<ul style="list-style-type: none"> • Set up participatory local/territorial/ regional governance bodies • Build local capacity • Raise civil-society and decision-maker awareness 	<ul style="list-style-type: none"> • Develop an ICM/pilot-site plan • Implement management/ conservation activities • Develop new sustainable economic activities

GOVERNANCE

INTEGRE is being carried out in all four OCTs from 2013 to 2018 and is driven by French Polynesia together with New Caledonia, Wallis & Futuna and Pitcairn. Implementation has been coordinated by the Pacific Community (SPC) with a specially recruited five-person team: a coordinator, a project

assistant and three deputy coordinators, i.e. one for each territory.

A geographical three-tier (region, territory and pilot site) governance approach has been taken as outlined in the figure below:



IMPLEMENTATION

Activities are implemented in several different ways. They are set out in action plans (regional and territorial) approved by the Steering Committee and by MOUs signed by SPC and the four territorial authorising officers.

The different implementation methods are:

- **Direct implementation by SPC** (mainly for regional activities or when no local technical partner has been identified to carry out an activity)
- **Implementation by local partners**, supervised by:
 - implementation agreements which provide for delegation of management of INTEGRE funding linked to implementing the identified activities
 - accreditation documents, signed by SPC and the technical operators, make it possible to delegate implementation of identified activities without delegating funding, which will continue to be administered by SPC. Accreditation documents make it possible to fund activities carried out by technical departments without having to go through the central local government budget and to work with small local organisations

The accreditation documents and implementation agreements are closely monitored administratively.

BUDGET

Funded by the European Union to the tune of EUR 12 million (XPF 1.4 billion), INTEGRE has been implemented in four OCTs from 2013 to 2018. SPC provides financial control for the project and audit reports are submitted to the European Commission with each disbursement request. The implementation agreements with managing operators are not individually audited, but project audits contain substantial material on these grants. Managing operator expenditure is recorded in SPC accounts once the supporting documents required by the organisation's procedures have been submitted.

MONITORING AND EVALUATION

Based on operator outputs and following discussions with and approvals by the partners, the INTEGRE team provides and disseminates various deliverables, including quarterly progress reports, steering committee minutes, annual reports and workshop/forum reports. The materials produced by the project, including slideshows, scientific publications, posters, photos and videos, are regularly posted on the project website (www.integre.spc.int) and are freely downloadable. External reviews of INTEGRE organised by the European Commission are planned to monitor progress and ensure the outputs match the objectives.

INTEGRE IN NEW CALEDONIA



In New Caledonia, the provinces are the competent authorities in matters regarding the environment and are tasked with maintaining the UNESCO World-Heritage-listed New Caledonia Lagoon serial properties' environmental integrity and ensuring that they are sustainably managed. They, therefore, requested that INTEGRE strengthen the integrated participatory management of the sites involved.

SPECIFIC OBJECTIVES

INTEGRE was explained to the provinces in 2014 and its action plan approved by the various local partners. INTEGRE New Caledonia has two components:

Local component

Three INTEGRE pilot sites:

- Great Southern Lagoon, Southern Province
- Ouvea and Beutemps-Beaupre Atolls, Loyalty Islands Province
- Northeast coastal area (ZCNE), Northern Province

On pilot sites, INTEGRE is working towards the following objectives:

- Maintain the integrity of UNESCO World-Heritage-listed sites
- Give fresh impetus to the participatory management process and involve local stakeholders more effectively
- Help sustainably manage the sites and control human-induced threats

Territorial and cross-sector component

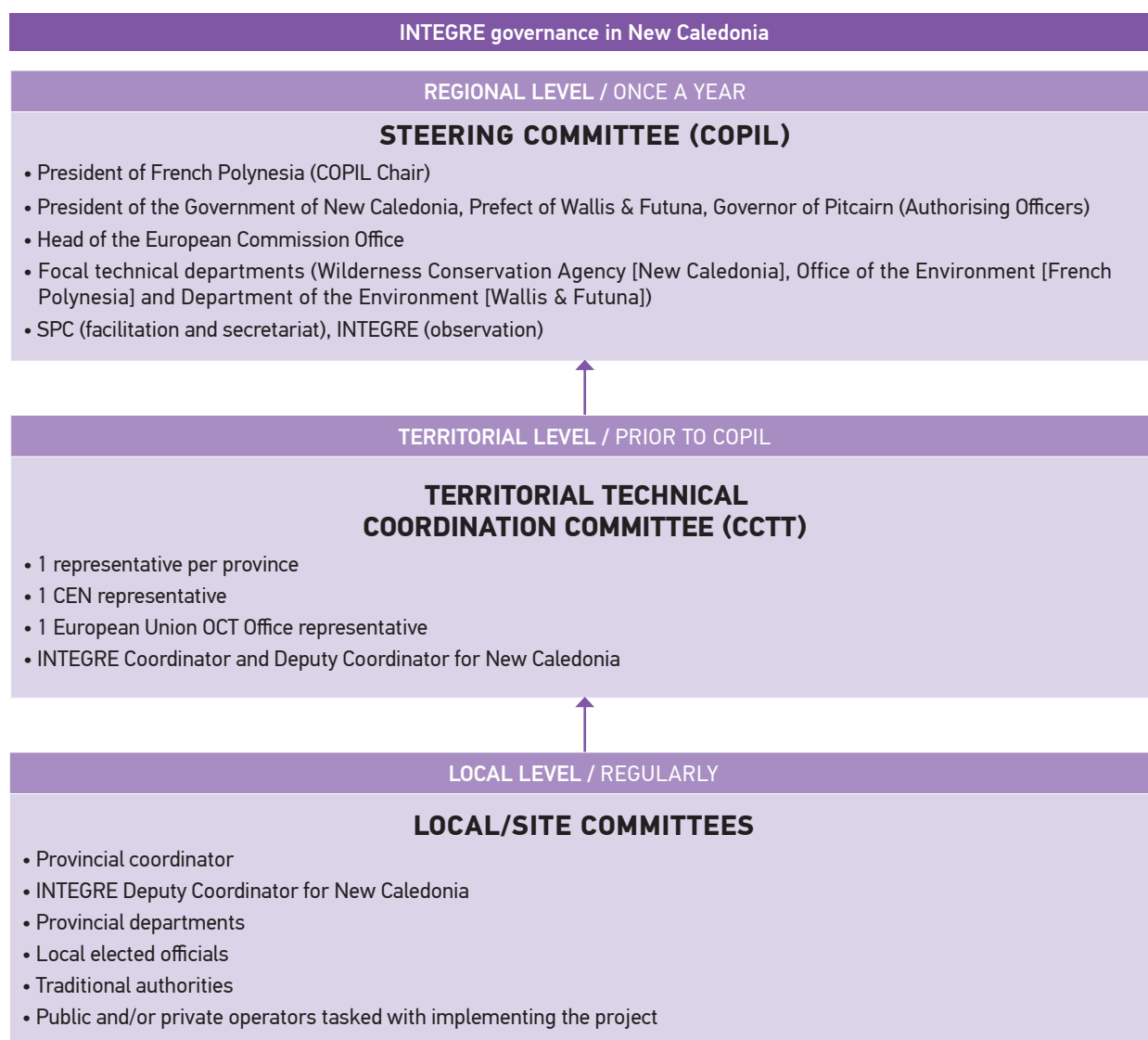
In New Caledonia, INTEGRE aims to:

- Improve networking and build capacity for all involved in managing UNESCO World-Heritage listed sites
- Start work on a climate-change adaptation strategy and contribute ideas for addressing this major concern in New Caledonia's coastal areas
- Strengthen organic farming to help develop more environmentally-friendly agriculture with lower inputs.

LOCAL GOVERNANCE

INTEGRE provides support to existing bodies and resources, such as World-Heritage management committees, government environment departments, environmental and cultural associations, social and economic stakeholders and scientific experts.

A geographical three-tier (region, territory and pilot site) governance approach has been taken in New Caledonia. The three provinces are responsible for environmental matters and, as such, are vital project partners.



Steering Committee meeting (7 July 2016) – SPC, Noumea

3

PILOT SITE

NEW CALEDONIA'S GREAT SOUTHERN LAGOON

FROM MINE TO LAGOON

The Far South pilot site encompasses the land and sea at the New Caledonia's southern tip, embracing the municipal areas of Mont Dore, Yaté and Isle of Pines, and covering a surface area of 8418 sq. km, some 1400 sq. km of which is land. Only the coast is settled with a population of approximately 2000 spread across a dozen tribal areas. The Southern Province is responsible for managing the area's environment, while the New Caledonia Government oversees the exclusive economic zone.



BIODIVERSITY

From kagus to kauris through palm trees, humpback whales, humphead wrasse, nickel hyperaccumulator plants and flax snails, the Great Southern Lagoon's biodiversity includes an assortment of iconic rare and endangered species. On mine scrubland, for example, the endemism rate can reach up to 90%. Because of its outstanding environmental value, the Great Southern Lagoon area has been identified as being of

"Nine out of ten plants on mine scrubland are endemic"

"universal conservation value", as borne out when it was UNESCO World-Heritage-listed in 2008 and the "Plaine des lacs" area RAMSAR-listed in 2014 as wetlands of international importance. Within the Province, 19 marine reserves and 11 protected land areas, including the Blue River Provincial Park, have been set up and are managed by the Southern Province Department of the Environment.

ECONOMY

The coastland and mountain areas host a wide range of economic activities. Mining is prominent with several nickel mines and orphan (disused) mines as well as large, coveted, but unmined, deposits. In and around Prony, there is the huge Vale New Caledonia industrial complex with a metal processing plant, international harbour and power station, as well as 1900 ha of active mines and a revegetation nursery producing 500,000 seedlings a year. The complex located 80 km from Noumea provides 3000 jobs, 1300 of which are direct, with many workers housed on site, plus 600 local sub-contractors.

There is considerable development potential for tourism. The Isle of Pines is a leading tourist destination in New

Caledonia with 135,000 cruise-liner passengers visiting every year. Tourist spots on the main island's southern tip, such as Blue River Provincial Park, whale watching and Cape N'Dua, attract 50,000, mainly local, visitors a year. Seasonal appearances of humpback whales in Prony Bay have generated a whale-watching industry that is becoming increasingly organised with its own whale-watching charter. While there is some commercial fishing, catching fish is more of a leisure activity and subsistence practice for people from the greater Noumea area and the coastal tribes. The pilot site is also home to a burgeoning forestry industry, low-key fish farming (one rabbitfish farm), very little market gardening, but relatively productive subsistence farming in the tribal areas.



ENVIRONMENTAL PRESSURE

Several factors are a threat to environmental quality in the Great Southern Lagoon, including:

- Mineral deposits that destroy biodiversity and fragment natural habitats when mined;
- Fire that also depletes soil biodiversity and causes fragmentation;
- Exotic invasive species that prey on and compete with indigenous biodiversity;
- Lagoon pollution from soil erosion on former mining and logging areas causing undue silting in the lagoon during heavy rainfall; and
- Increased tourism and visitor traffic to certain sites placing heavy pressure on some resources, such as flax snails and fish, and leading to damage to landscapes and the environment and conflicts over uses with local communities.

LOCAL GOVERNANCE ARRANGEMENTS

In terms of site governance and management, a number of bodies have been set up. With the Great South Lagoon being UNESCO World-Heritage listed and a high-risk processing plant located there, lengthy local discussions were held to structure governance and strive towards the common objective of mitigating impacts and developing the environment. As a result, an integrated management approach was adopted, driven by the Southern Province, harmonising the work of the various stakeholders and bodies, including the provincial, municipal and territorial departments, scientific experts, Environment Observatory (OEIL) and local communities. They are as follows:

- **Three local management committees (LMCs)**, namely the Ouen island, Isle of Pines and Goro LMCs. A local management committee union was set up in 2011 to coordinate discussions for the whole far-southern area with environmental associations, industry federations, OEIL (environmental observatory) and mining companies playing a consultative role. The 2013-2017 site management plan was approved in 2013;
- **The Far South Sustainable Development Pact** signed in 2008 by Vale New Caledonia and the local communities for a 30-year term requiring the mining company to develop and implement specific measures for assisting the sustainable development of the main island's southern tip. It is managed by three bodies, namely the Vale Foundation, Traditional Leaders' Environmental Consultative Committee (CCCE) and the reforestation association;
- **The biodiversity protection agreement**, signed in 2009 by the Southern Province and Vale that aims to prevent, mitigate and offset impacts on biodiversity on the main island's southern tip; and
- **The Environmental Observatory (EIL)**, an association set up in 2009 to monitor the environment and regularly update decision-makers and the general public on its status.



Far South © SPC - INTEGRE

INTEGRE IMPLEMENTATION

INTEGRE is part of this networking exercise and aims to provide support to the Southern Province and its partners in their efforts to promote and implement the integrated management provisions for this outstanding coastal area.

MANAGEMENT COMMITTEE

In order to avoid a plethora of forums, the INTEGRE pilot-site local committee for the Great Southern Lagoon built on pre-existing local bodies including:

- The three management committees for the Isle of Pines, Goro and Ouen Island
- Southern Province
- Wilderness Conservation Agency (CEN)
- Environmental protection agencies including the:
- Environmental Observatory (OEIL), WWF, New Caledonia Birdwatching Association (SCO) and Opération Cétacés
- Mont Dore, Yate and Isle of Pines municipalities
- Industry stakeholders, i.e. Vale NC, the marine-recreation and water-transport federation and mine-workers' union
- SPC, through the INTEGRE Deputy Coordinator for New Caledonia

SITE EVALUATION

A regional methodology workshop was held in February 2014 with all project partners. A SWOT (strengths, weaknesses, opportunities and threats) analysis was carried out as the project's evaluation and planning aid, as presented below:

FAR-SOUTH SITE SWOT ANALYSIS – SOUTHERN PROVINCE – NEW CALEDONIA

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Heavy cultural use by local communities; traditional practices • Environmentally very rich both on land and at sea (microendemism and ultramafic soil) • Outstanding landscapes • Solid institutions with human and financial capacities and regulatory framework • Political will and government backing • Participatory approach in place for World-Heritage sites: management: committees and union of committees set up • No urban pressure 	<ul style="list-style-type: none"> • Fragile environment (mines, fire, erosion, invasive species) • Conflicting stakeholder interests (authorities and locals) • Conflicts over uses (locals/outsideers) • High levels of cultural use that may hinder development • Lack of follow-up and assistance for the participatory approach (human resources) • Local resistance and poor communication between locals and government • Slow and complex participatory process (resources and local stakeholders unavailable, latent conflicts revived, legitimacy of representatives) • Lack of an environmentally-driven cross-sector vision
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • VALE facilities • Environmental Observatory (OEIL) present • RAMSAR/UNESCO listed • Economically-dynamic area: job creation / tourist attractions 	<ul style="list-style-type: none"> • Heavy mining pressure • Heavy and increasing tourism pressure • Heavy soil erosion, invasive species and fire • Rapid social and economic change: weakening ties to the land, money circulating, family and traditional equilibrium upset • Pressure on fisheries resources



Isle of Pines @ SPC - INTEGRE

OBJECTIVES

The SWOT analysis helped better define project strategy and align future activities. The following objectives were specifically approved for the site project:

- Strengthen participatory management by providing field facilitators to further the management committee and Southern Province's initiatives.
- Help reduce visitor pressure on marine and coastal areas.
- Develop a strategic vision of the environment to introduce consistency to environmental policy on the main island's southern tip.

ACTION PLAN AND BUDGET

An action plan was developed to achieve the objectives based on three main activities.



ACTIVITY 1

Strengthen participatory management

The aim is to make all three committees more effective in their operations, improve their ability to act and help them implement part of the Great Southern Lagoon management plan. **Two facilitators** were hired and will be working throughout INTEGRE's term. Funding was also allocated to develop the concrete activities that they initiate, such as building a native-species nursery for replanting operations and eradicating the Caribbean pine, an invasive species.

Budget:

XPF 27.8 M (i.e. EUR 231,288)

Operators: Southern Province and the Isle of Pines, Goro and Ouen Island management committees

ACTIVITY 2

Help reduce visitor pressure on marine and coastal environments.

This involves:

- assessing the threat level from visitor traffic (tourism and subsistence fishing and hunting);
- setting up facilities on offshore islands and the shoreline to strike a balance between visitor traffic and conservation concerns;
- providing awareness training and information to local communities and greater Noumea area residents.

Budget:

XPF 25.4 M (i.e. EUR 212,852)

Operators: Southern Province, Isle of Pines, Goro and Ouen Island management committees and SCO

ACTIVITY 3

Develop policy and environmental-management guidelines for the Great Southern Lagoon.

This involves introducing more consistency and strategic vision to environmental policy implemented in the area, as there are many initiatives, which are sometimes scarcely or poorly coordinated due to a lack of cross-sector resources. These include UNESCO World Heritage, RAMSAR listing, marine reserves, land protected areas, damaged site restoration, offset measures and the Environmental Observatory (OEIL). A project officer was hired by the Southern Province to carry out facilitation and discussion work throughout the project term. RESCCUE will provide extra expertise for this area.

Budget:

XPF 19.4 M (i.e. EUR 162,572)

Operator: Southern Province



4

PILOT SITE

OUEVA AND
BEAUTEMPS-BEAUPRE
ATOLL

ATOLLS AT THE ENDS OF THE EARTH

Both Ouvea and Beautemps-Beaupre ocean atolls were selected as INTEGRÉ pilot sites for the Loyalty Islands Province. Both are fully part of the UNESCO World-Heritage listed New Caledonia Lagoon serial property, including the buffer zone. The first atoll is 850 sq. km and the second, smaller atoll 120 sq. km with little emerged land.



GEOGRAPHY

Ouvea Island is a large isolated atoll opening onto the ocean, averaging 20 metres deep and free of sedimentary input, which is why the lagoon is famous for its crystal-clear appearance. The continuous, emerged land forms a crescent with slender centre and is approximately 50 kilometres long by six wide. It is a low island rising only to 46 m. The island is extended at both ends by a string of smaller islands called

the Southern and Northern Pleiades. There is an underground river system with fresh water running through a vast maze of coral karst cavities. Ouvea is the only inhabited atoll of the two with approximately 3400 population (2014 census) living in 21 tribal areas. Land tenure is exclusively traditional. There is no real urban centre, but the more populated, administrative area is Fayaoué.

BIODIVERSITY

Ouvea and Beautemps-Beaupre Atolls have several unique biological and ecological features. In terms of land biodiversity, for example, they are home to the Loyalty Islands' only mangroves and swamp. They have a fairly well-preserved primary forest with a small micro-endemic green parakeet, endemic giant snails and fruit bats. The coast is lined with many coconut plantations that are home to the coconut crab and host large seabird colonies of wedge-tailed shearwaters, terns and boobies. The Pleiades are a green sea turtle (*Chelonia mydas*) spawning ground. The islands are free of one major invasive species, i.e. the black rat, but other invasive predators such as the mice, feral cats and Pacific rats are found there.

In marine biodiversity terms, an IFREMER survey carried out to prepare the World Heritage application listed 675 reef fish species, some of which were found in reasonable densities, such as humphead wrasse, parrotfish, common stingrays and sharks. In September-October, the lagoon is the scene of a majestic gathering of giant oceanic manta rays. Ouvea



and Beautemps-Beaupre are free of ciguatera (fish poisoning) microalgae that contaminate the flesh of some fish and cause food poisoning.



Mouli Bridge on Ouvea © SPC - INTEGRE

ECONOMY

Many Ouvea Islanders emigrate to the greater Noumea area in search of more varied and numerous jobs. Despite the “exodus” (they regularly come home to work in their food gardens and take part in traditional ceremonies), the wealth earned by these “expatriates” directly benefits the island, as many redistribute their income by investing on Ouvea, building houses and buying cars, etc.

The island's direct economy is mainly driven by the tertiary sector, i.e. health, education, public service and retail, as well as farming, tourism and fisheries.

- Tourism consists of a few guest houses, a major hotel and several small homestay arrangements in tribal communities. Ouvea ceased to be a cruise ship destination in 2007 when excessive damage was observed on reefs caused by ships' anchors and a major risk of ciguatera developing and spreading on the atoll was feared.
- Commercial fishing is carried out by a fishers' guild holding some 15 licences, which supplies a seafood packing plant at Takedji in the island's north. Fish from Ouvea and Beautemps-Beaupre atolls is ciguatera-free.
- Extensive mixed farming tends to specialise in high added-value products such as sandalwood and copra with the Wadrilla oil mill and soap factory and vanilla.



Poster for a weekend festival on Ouvea

ENVIRONMENTAL PRESSURE

There are several threats to environmental quality on Ouvea and Beautemps-Beaupre:

- Shoreline erosion related to coastal development and coral quarrying (sand, coral rubble and lime gravel) for human construction and facilities
- Invasive species harming native fauna and crops. Health checks at the entry points to the atolls are vital to prevent any further pests from entering, particularly black rats
- Localised overfishing and unsuitable fishing methods. There are no marine protected areas yet, although eight traditional reserves (i.e. “taboo” locations) have been listed and are governed by traditional regulations
- Waste, which causes pollution and nuisance issues, is not efficiently managed or disposed of
- Deforestation and forest habitat depletion. Ouvea has poor fire-fighting facilities

LOCAL ORGANISATIONS

The Loyalty Islands Province (PIL) Department of the Environment is tasked with managing the environment. In 2007, PIL and the Ouvea traditional chiefs signed a joint declaration recognising each other's legitimacy in matters relating to jointly preserving the World-Heritage listed property. The traditional leaders incorporated in 2009 as a special-law grouping known as Bomene Tapu (sacred island) GDPL, a legal entity that manages development on custom land.

The GDPL has 34 members. Its purpose is to “develop and protect traditional natural-resource management practices on Ouvea and Beautemps-Beaupre insofar as they constitute sustainable natural-resource protection and conservation

methods for the benefit of present and future generations.” So public authorities work on this basis to jointly manage the site.

Conservation International provided support for developing a governance method and the management plan that is now running for five years (2012-2017) with activities being re-adjusted yearly.

Joint management is provided by technical groups who involve all the public and private stakeholders. They are tasked with implementing the action plan based on a participatory approach through local stakeholders or outside experts with an emphasis on greater autonomy.



Management Committee Forum, July 2015. Ouvea © SPC - INTEGRE

INTEGRE IMPLEMENTATION

INTEGRE fully subscribes to this networking approach and strives to provide support to the Loyalty Island Province and its partners in their efforts to promote and implement integrated management initiatives in this outstanding coastal area.



A field trip on Ouvea © CPS - INTEGRE

MANAGEMENT COMMITTEE

INTEGRE aims to promote integrated management on these outstanding atolls. In order not to duplicate oversight bodies, the INTEGRE pilot-site local committee for Ouvea and Beautemps-Beaupre is also the management committee. It includes:

- Bomene Tapu GDPL
- Loyalty Islands Province's Department of the Environment
- Ouvea Municipality
- Ouvea Biodiversity Protection Association (ASBO)
- The Interschool Group (GIE), tourist information office and fishers' guild
- Wilderness Conservation Agency (CEN)
- SPC through the INTEGRE Deputy Project Coordinator

SITE ASSESSMENT

A regional methodology workshop was held on 20 March 2014 for all project partners and a SWOT (strengths, weaknesses, opportunities and threats) analysis was conducted as a project diagnostic tool and planning aid. It is presented below:

OUVEA-BEAUTEMPS-BEAUPRE, NEW CALEDONIA, SWOT ANALYSIS

STRENGTHS	WEAKNESSES
<p>Environmental</p> <ul style="list-style-type: none"> Environmentally rich site with well-preserved natural environment (e.g. lagoon, Beautemps-Beaupre, landscapes and parakeets) Black-rat-free island (<i>Rattus rattus</i>) Small population, no industrial pressure Water rationally used, as it is scarce <p>Cultural, social and economic</p> <ul style="list-style-type: none"> Culturally rich: customs and languages, etc. Social and cultural setting conducive to local discussion Ouvea: a well-known destination Basic infrastructure (e.g. roads, telephone and internet, etc.) Land tenure: secure, innovative Economic development code <p>Existing resources/management</p> <ul style="list-style-type: none"> Environmental protection philosophically, culturally and politically appropriate Loyalty Island Province environmental charter: traditional knowledge and practices recognised Active partners to provide support: ASBO and women's association, etc. UNESCO World-Heritage listed site with active bodies (Management Committee, GDPL and participatory management plan) 	<p>Environmental</p> <ul style="list-style-type: none"> Vulnerable environment due to isolation Waste management issue; no waste sorting Scarce fresh water and no water management strategy; no running water Lack of sanitation No environment code; no legislation to back monitoring or penalties <p>Cultural, social and economic</p> <ul style="list-style-type: none"> Small, declining and ageing population Island status: cost, scarce and unreliable shipping services, equipment difficult to maintain Land tenure system and no planning and development strategy Alcohol abuse Lack of materials to replace sand and lime gravel Communication issues with two languages <p>Resources/management</p> <ul style="list-style-type: none"> Inadequate liaison between departments Lack of knowledge Scarce funding and human resources Unpaid local stakeholders Difficult to organise management committee working groups
OPPORTUNITIES	THREATS
<p>In terms of economic development</p> <ul style="list-style-type: none"> Air and shipping service modernisation New infrastructure: wharf, desalination plant and fuel depot Basic economic projects: soap factory and oil mill Ecotourism development <p>In terms of approaches or projects</p> <ul style="list-style-type: none"> Training programme I-bozu tourist package Environment code under construction; provincial waste management modernisation policy in the making; UNESCO World-Heritage site <p>In terms of outside partners</p> <ul style="list-style-type: none"> Partnerships with expert bodies (ADEME and NGOs, etc.) INTEGRE: networking and experience sharing 	<p>In terms of economic development</p> <ul style="list-style-type: none"> Air and shipping service modernisation: more visitors and pressure; waste; invasive species; water Some industries will expand, e.g. fisheries and copra <p>Environmental</p> <ul style="list-style-type: none"> Shoreline erosion; climate change Invasive species, e.g. locusts and rats <p>Other</p> <ul style="list-style-type: none"> Difficulty balancing interests and outlooks between stakeholders Population decline

OBJECTIVES

This analysis helped better define the project strategy and make future activities more consistent. The specific objectives selected for the site project were as follows:

- Strengthen and energise the site participatory management process and efforts to involve local stakeholders in preserving their heritage;
- Help forestall dangers that could affect the site; and
- Showcase Ouvea's natural and cultural heritage for the benefit of the community by developing ecotourism in Mouli District.

ACTION PLAN AND BUDGET

An action plan was developed to achieve these objectives based on three main activities.

ACTIVITY 1

→ Strengthen governance and participatory management

The aim is to make the joint management committee operate more efficiently, improve its ability to act and help it implement its management plan. A facilitator has been recruited and will work throughout the INTEGRÉ project term on setting up joint lagoon surveillance by the Loyalty Islands Province (PIL) and the commercial fishers and strengthening participatory reef monitoring.

Budget:

XPF 29.5 M (i.e. EUR 247,210)

Operators: PIL, Bomene Tapu GDPL, fishers' union

ACTIVITY 3

→ Organise Lekiny-Fayava traditional reserve management

This reserve is covered by the Loyalty Islands Province environmental code and is a pilot site for applying some new provisions contained in the code for local management committees and a management plan. Studies are underway to describe the shoreline and improve development on the landward mangrove fringe.

Budget:

XPF 7.2 M (i.e. EUR 60,336)

Operators: PIL, Bomene Tapu GDPL, Lekiny tribal community, University of New Caledonia, French Museum of Natural History.

ACTIVITY 2

→ Set up an ecotourism development unit in Mouli District to showcase its natural and cultural heritage

This involves building various tourist facilities, such as a nature trail, picnic area, underwater trail and awareness and rule signage.

Budget:

XPF 20 M (i.e. EUR 167,600)

Operators: PIL, Bomene Tapu GDPL, fishers' union

ACTIVITY 4

→ Invasive species control

Invasive species control

This involves exterminating rats on a trial island to alleviate the danger to seabird colonies and develop an international consultancy for strengthening Ouvea's biosecurity.

Budget:

XPF 1.8 M (i.e. EUR 9504)

Operators: ASBO, PIL, Bomene Tapu GDPL

ACTIVITY 5

→ **Compile a teaching material bank** for heightening community awareness on lagoon protection issues by using existing aids and creating fresh material that is adapted to Ouvea and Beautemps-Beaupre's specific characteristics. There are also plans to help with school projects dealing with lagoon protection.

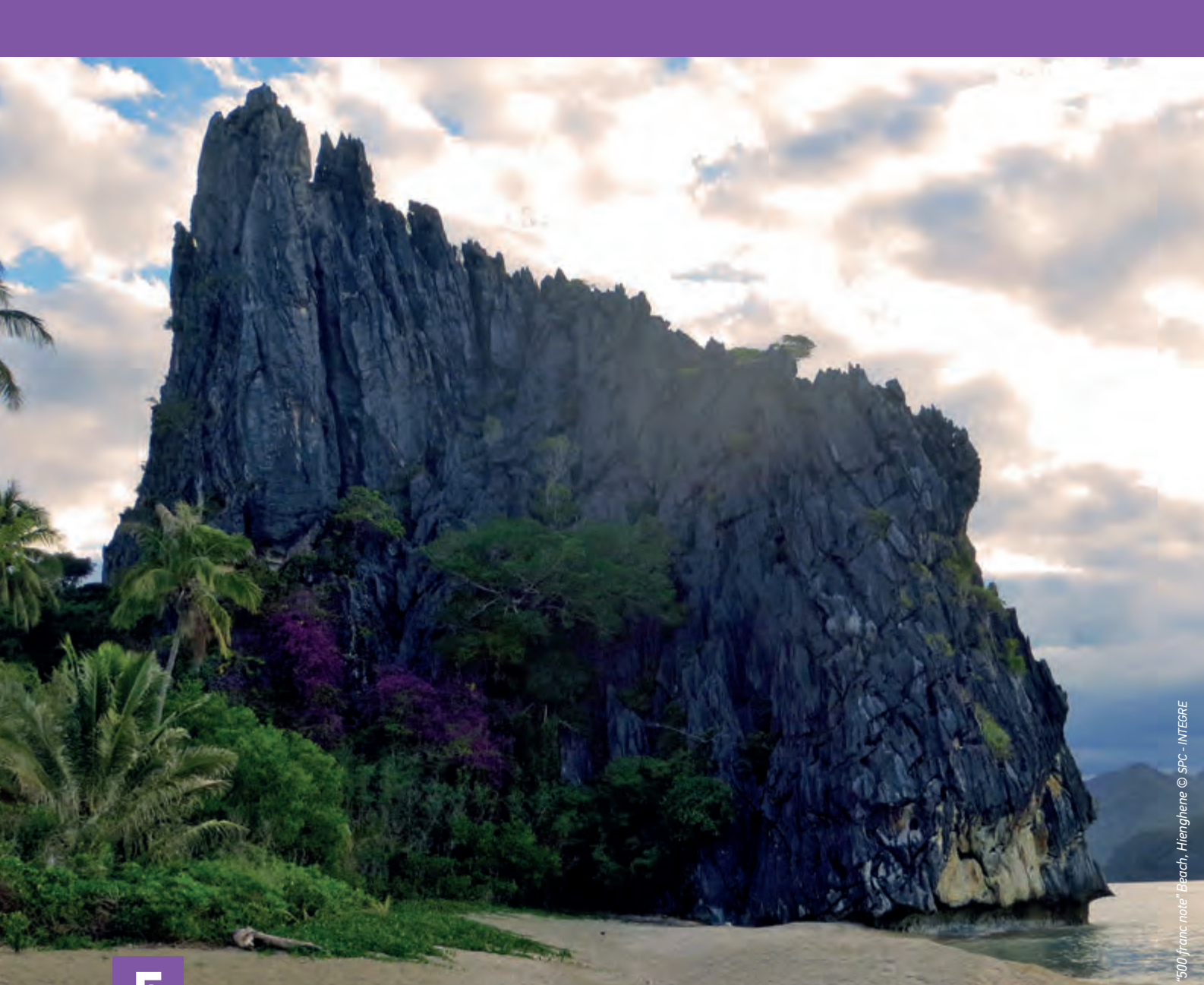
Budget:

XPF 4.5 M (i.e. EUR 37,710)

Operators: PIL, Bomene Tapu GDPL, GIE, primary and junior secondary schools



Customary ceremony at the Management Committee Forum, July 2015 © SPL - INTEGRÉ



"500 franc note" Beach, Hienghene © SPC - INTEGRE

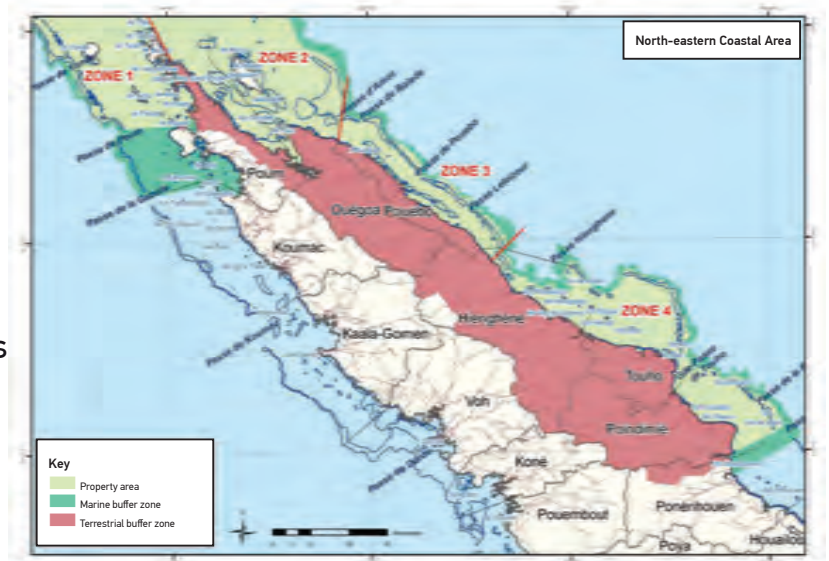
5

PILOT SITE

NORTH-EASTERN COASTAL AREA

FROM RIDGE TO REEF

The north-eastern coastal area was selected as INTEGRÉ's pilot site in the Northern Province. It is part of the UNESCO World-Heritage listed New Caledonia Lagoon serial property and covers 3050 sq. km on land and 3710 sq. km in the lagoon.



GEOGRAPHY

The north-eastern coastal area pilot site encompasses all the watersheds and lagoons in the municipalities of Poum, Ouégoa, Pouébo, Hienghène, Touho and Poindimie. The north-eastern coast is historically significant for New Caledonia, as this is where James Cook discovered the island and France claimed possession in 1853. The first mineral prospection and Kanak evangelisation campaigns took place on the banks of the Diahot River.

Today's population in the north-eastern coastal area municipalities totals nearly 18,000 and is in large majority Kanak.

This part of the east coast of the main island from Poindimie to Pouébo is very mountainous. The central mountain range runs along it and New Caledonia's highest peak, Mount Panie in Hienghène municipality, rises to 1629 m. It is also covered by New Caledonia's largest unbroken rainforest (330 sq. km). The slopes are very steep and drained by a river system that flows into several major watercourses, including the Ouaieme, Diahot and Tiwaka. The northern end in Poum has a hilly landscape dotted with damaged vegetation and disused mines. The ocean coastline is deeply indented and the barrier reef broken up.



Tibarama Island off Poindimie © SPC - INTEGRÉ

BIODIVERSITY

The marine area is exceptionally well-preserved, containing a variety of habitats in a small area, including fringing reefs, barrier reefs, seagrass beds and mangroves and holds remarkable biological and environmental features such as double coral reefs, micro-endemic fish, green sea turtle spawning grounds, dugong congregations, humpback whale nurseries and shark breeding grounds. The Diahot Estuary is also host to New Caledonia's most extensive and diverse mangroves.

Sediment yields attract a larger fish biomass making the north-eastern coastal area's marine biodiversity undoubtedly one of New Caledonia's richest in terms of algae, invertebrates and fish.

On land, Mont Panie's forests have a high endemism rate for plants (64%), insects and freshwater fauna and make up an official nature reserve.

ECONOMY



Tribal farm produce, Poum © SPC - INTEGRE

Some 80% of the region's population lives in tribal areas that are sometimes very isolated. Most engage in subsistence farming, fishing and hunting with no fewer than eight in ten persons older than 16 involved in these pursuits. They do not sell their produce, but eat it themselves or donate it in customary ceremonies. The tourist industry is growing and consists of small-scale accommodation, such as tribal homestays, guest houses and medium-capacity hotels. Ecotourism for experiencing natural and cultural heritage offerings is attracting increasing numbers of visitors in search of natural beauty and authenticity. Beside the Poum mine, there is no industry or mining and commercial farming is small-scale (no wholesale markets).

ENVIRONMENTAL PRESSURE

There are several threats to the north-eastern coastal area's environmental quality, including:

- Biodiversity erosion and damage to land environments. This is caused by fire, due in part to inappropriate farming and pasture methods and very harmful invasive species. Ungulates, specifically deer and pigs, graze on or trample over young shoots, jeopardising forest regeneration, for example;
- Watershed erosion and soil leaching have increased the watercourses' sediment loads. Such erosion is due to development work, such as dirt roads, fords, and riverside vegetation cleared for farming, that has reduced plant cover, fire, invasive species that graze and trample on young shoots; and current and past mining in Poum and Poindas, respectively. This has led to damage to marine areas near rivers and particularly to fringing reefs. Erosion has also caused soil fertility to gradually diminish, jeopardising food production and encouraging slash-and-burn agriculture, which further compounds the problem; and
- Localised overharvesting of marine invertebrates, such as giant clams and sea cucumbers and unsupervised household waste dumping.



A nature trail at Poindas, Poum (signboard about bush mammals) © E. Bonnet-Vidal

LOCAL ORGANISATIONS

With regard to site governance and management, there currently several organisations and legal instruments.

- Having the New Caledonia lagoon serial property UNESCO World-Heritage listed led to various measures for managing the site. It is overseen by the Northern Province's Department of Economic Development and the Environment (DDEE) which elected to work at the municipal level. The north-eastern coastal area municipalities, therefore, underwent a participatory environmental baseline study to set up a management plan for the area. The related management committees were set up in 2009 and 2010 and produced two management plans. The Northern Province also provides support to two associations that emerged from the management committees and are tasked with implementing the management plans, i.e. the Ka Poraou Association and the Hyabe-Le-Jao PMA Association.
- Mount Panie Nature Reserve (5400 ha in an IUCN protected area category) has seen a number of activities over the past 10 years, including rodent and ungulate population regulation, botanical trails and awareness in schools, through the local Dayu Biik Association made up of Hienghene area tribal representatives. It employs three permanent staff and calls on the services of a further dozen people from time to time. The reserve has a 2012-2016 management plan that was approved by the Provincial Assembly on 26 October 2012.
- There are three marine protected areas, Hyabe-Le-Jao Sustainable Resource Management Area (7080 ha) in Pouebo, Dohimen Wilderness Reserve (3712 ha) and Yeega Provincial Park (656 ha) both in Hienghene.

INTEGRE PROJECT IMPLEMENTATION

INTEGRE fully subscribes to this networking approach and strives to provide support to the Northern Province and its partners in their efforts to promote and implement integrated management initiatives in this outstanding coastal area.

MANAGEMENT COMMITTEE

As there was no site-wide governance body, an INTEGRE local committee was set up made up of:

- The Northern Province's Department of Economic Development and the Environment
- The mayors of the six municipalities (Poum, Ouégoa, Hienghene, Pouébo, Poindimie and Touho)
- The management association chairs (World Heritage and Dayu Biik)
- A management committee representative
- Wilderness Conservation Agency (CEN)
- SPC through the INTEGRE New Caledonia Deputy Coordinator



Presenting INTEGRE in the Northern Province, November 2013 © SPC - INTEGRE

SITE ASSESSMENT

A regional methodology workshop was held in February 2014 for all project partners and a SWOT (strengths, weaknesses, opportunities and threats) analysis was conducted as a project diagnostic tool and planning aid. It is presented below:

NORTH-EASTERN COASTAL AREA, NEW CALEDONIA, SWOT ANALYSIS

STRENGTHS

- Site ecology and landscape in good condition
- UNESCO World-Heritage listed site: common objective
- Existing framework: public policy, shoreline management strategy, household waste management blueprint (20-year strategic plan, 5-yearly reviewable action plan)
- Participatory approach up and running: communities and users effectively involved (business stakeholders, awareness method and associations, etc.)
- Leading technicians from the local area
- Stakeholder training underway
- Nature use linked to strong cultural identity factors.



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WEAKNESSES

- Isolated sites on rough terrain making access difficult, fostering isolation and making any field work very costly
- Lack of specific data on species, habitats and erosion, etc. and existing data not readily accessible or available
- Slow and complex participatory process (stakeholder availability and resources; latent conflicts aroused)
- Lack of communication between stakeholders and across sectors
- Land ownership not determined thus hindering waste management and relocation of assets threatened by coastal erosion
- High operating costs even though only at management system design stage, which could hinder replicating operations on the rest of the site
- Lack of financial and human resources for implementing public policy
- Lack of stakeholder operational management capacity
- Water resource difficult to manage (inconsistencies in the site's interior and no control over sewage management in tribal areas, as outside scope of town-planning rules)
- Inadequate waste management
- PMAs (marine protected areas) have no control over land-generated pollution, making it difficult to preserve marine environments

OPPORTUNITIES

- INTEGRE: funding and opportunity to share experience with island countries on shoreline management and displaced community issues
- A collaborative network with counterpart technicians in the territory and abroad



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THREATS

- Human pressure on the environment, mine, increased traffic due to economic development on the west coast, quarrying for house and road building, etc., localised population pressure and fire
- Deteriorating drinking-water and environmental quality in river-influenced marine areas, particularly fringing reefs, due to damage to terrestrial environments and rising sediment loads in the rivers
- Damage to the marine environment and coastal erosion due to climate change and sediment dredging along the coast
- Localised overharvesting of marine invertebrates (giant clams and sea cucumbers)
- Damage to land environments by fire and invasive species, especially deer and pigs
- Risk of overlapping bodies (including INTEGRE and RESCUE) on the same territory dealing with the same environmental issues, leading to confusion in activities and being difficult for local communities to understand
- Rapid social and economic change

OBJECTIVES

This analysis helped better define the project strategy and make future activities more consistent. The specific objectives selected for the site project were as follows:

- Provide support to the participatory management process; and

- Help forestall dangers that could affect the site by implementing integrated management plans in each municipality and pilot watershed management activities.

ACTION PLAN AND BUDGET

An action plan was developed to achieve these objectives based on four main activities.



Photos 1,2,3 and 4 © Q. Delvienne

ACTIVITY 1

→ **Strengthen participatory management** throughout the north-eastern coastal area and foster networking between the joint management committees and related associations, World Heritage participatory management in the north-eastern coastal area is municipality-based with a management committee and related management association for all six municipalities. The aim is to strengthen facilitation so as to:

- help management committees set up their management plans;
- make the World Heritage process consistent and have the various organisations networking. A coordinator was recruited by the Northern Province for this and will serve throughout the project term. Networking resources have been set up and cross-sector activities implemented.

Budget: XPF 32.35 M (i.e. EUR 271,093)

Operators: Northern Province and North-eastern Coastal Area World Heritage management committees and associations

ACTIVITY 2

→ **Strengthen participatory integrated management** of the UNESCO property in Poindimie.

A full-time facilitator has been recruited and is managing Popwadene Association and helping develop and implement a management plan.

Budget: XPF 15.25 M (i.e. EUR 128,005)

Operator: Popwadene Association

ACTIVITY 3

→ **Collect and process** end-of-life vehicles (ELVs) and car wrecks in two municipal areas.

ELVs are deemed hazardous waste. They can cause pollution in groundwater and the lagoon. Two municipalities have been targeted, namely Ouegoa and Pouebo. The owners need to be identified, transfer authorisations obtained and the bulky waste disposed of.

Budget: XPF 5 M (i.e. EUR 41,900)

Operators: Northern Province and Pouebo and Ouegoa municipalities

ACTIVITY 4

→ **Protect and restore the watershed forest** in a Touho municipality drinking-water catchment area.

There are several invasive ungulate regulation and revegetation activities aimed at accelerating the forest cover regeneration process in the watersheds of one of the Touho municipality and Pwoi (Poyes) tribal area's main gravity-fed drinking-water catchment systems.

Budget: XPF 19,415 M (i.e. EUR 162,698)

Operator: ONFi, Tipwoto Association and the Poyes and Tiwae tribal community council of clans



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COOPERATE AND MAXIMIZE RESULTS

TO ENSURE A TERRITORY-WIDE
REACH AND SHARE KNOWLEDGE

CROSS-SECTOR ACTIVITIES TO ENSURE A TERRITORY-WIDE REACH

INTEGRE is also implementing cross-sector, theme-based activities to establish ties between the various pilot sites and incorporate New Caledonia into the regional OCT networks and showcase the knowledge acquired throughout the Pacific. More details on these cross-sector activities are provided below.

ACTIVITY 1

→ Set up a pilot organic farm network

This is part of a regional activity designed to further develop organic agriculture in the Pacific.

The objective is to promote sustainable, economically-sound business that is appropriate for island environments. It has three components:

1/ Promoting and developing organic farming in the three French-speaking Pacific island OCTs

- Improve organic farming techniques; and
- Strengthen POETCom (Pacific Organic and Ethical Trade Community), the regional organic-farming promotion network, and French-speaking OCT participation in the network.

This has involved setting up three pilot organic farms, i.e. one in New Caledonia at Do Neva Agricultural High School, Houailou, another on Wallis & Futuna at Wallis Agricultural High School and a third in French Polynesia at Opunohu Agricultural High School. Farm trials, technical and vocational training sessions, and feedback meetings are held. The results will be maximized Pacific-wide and discussed during regular regional exchanges.

In New Caledonia:

2/ Conducting soil-fertility, crop-disease, crop-pest and genetic-material trials at the Do Neva Agricultural High School's organically-certified farm in Houailou and the Houailou growers network's farms, which are also organically-certified. Joint funding was provided for equipment, two part-time high school technicians, the Biocalledonia Association and technical consultants; and

3/ Providing feedback and technical and vocational training are being facilitated for growers, students and professional players at the rate of one session a year.

Budget: XPF 21 M (i.e. EUR 175,896)

Operators: New Caledonian Chamber of Agriculture, Biocalledonia and Do Neva Agricultural High School

ACTIVITY 2

→ Develop a climate-change adaptation strategy

This activity aims to develop a climate-change adaptation strategy in New Caledonia and incorporate the territory into regional networks dealing with this area. The main element is a PhD thesis on climate projections jointly supervised by IRD and Météo France (French Meteorological Office). Jointly funded by INTEGRE to the tune of XPF 10.1 or EUR 85,000 and funding a climate-change adaptation strategy study.

Budget: XPF 12 M (or EUR 100,000)

Operators: IRD and the Government of New Caledonia

ACTIVITY 3

→ Build capacity and fostering exchanges

This activity is driven by the Wilderness Conservation Agency (CEN) and provides support to pilot sites. It consists of three components:

1/ Organising management committee forums

Scheduled for 2015 with a budget of XPF 8 M (EUR 67,041). Contributed 40% of the budget, i.e. XPF 3 M (EUR 25,140).

2/ Experience exchanges between management committees
Budget: XPF 1 M (EUR 4000 over two years)

3/ Training for management committee members, field facilitators and provincial technicians working in the area
Tailor-made training every two years based on needs expressed.

Budget: XPF 8.5 MF sessions (EUR 71,230)

Operator: CEN

SHARING AND DISSEMINATING

INTEGRE in New Caledonia has produced considerable outputs and experience and is carrying out communication activities to widely share the results and new knowledge.



Hienghène Environment Fair, 2014 © INTEGRE

TARGET GROUPS

Communication efforts should be aimed at a specific audience, such as partners, experts and decision-makers, but also the general public that is increasingly concerned about environmental issues. Communication is designed for consumption at local pilot-sites, territory-wide, regionally in the South Pacific and internationally in Europe. As a result, the target groups are varied:

- Local project partners, e.g. management committees, operators, staff and CEN
- All stakeholders living or working on pilot sites or nearby, such as the community, traditional leaders, business people and local associations
- Local decision-makers and government authorities that are directly or indirectly concerned by the project and their departments, i.e. the three provinces' departments, municipalities, elected officials in government, congress or the customary senate, New Caledonia's French MPs and senators, representatives of the French national government, the French ministry of overseas territories and the European Union
- Local stakeholders involved in similar environmental projects, to facilitate exchanges and feedback in both directions, i.e. local environmental and cultural associations, donors, project leaders, the scientific and academic community, the educational community, tourist information bureaux and NGOs
- Departments and associations dealing with culture, agriculture and the environment, such as the Kanak Cultural Development Agency (ADCK Tjibaou Centre), Chamber of Commerce and Environmental Observatory (OEIL)
- Local, regional, French overseas and international media, whether web-based, paper press or television
- Environmentally-aware general public and schoolchildren
- Economic stakeholders operating in the coastal-area pilot sites, e.g. mining companies, fishers and hotels
- Regional project partners and groups formed for project purposes so as to learn lessons from everyone's experience and develop regional cooperation
- Regional and European organisations that are directly or indirectly involved in the project, such as regional cooperation departments, the French departments of overseas territories and Europe-Pacific cooperation, SPC, Pacific Island Forum, European Union, SPREP (Secretariat of the Pacific Regional Environment Programme)

MESSAGES

Depending on the target groups, the messages will cover the following concepts:

- New Caledonia has an outstanding coastal heritage, particularly in the UNESCO World-Heritage areas, which must be fully preserved for future generations
- Integrated coastal management is an appropriate, tried and tested solution for sustainable development in South Pacific islands. It is environmentally sound and benefits local communities
- The communities of Ouvea, the north-eastern coast and Far South are closely involved and play an active part in decisions and initiatives for preserving and using their environment so as to introduce sustainable solutions
- Solutions and initiatives that have been successfully tried in New Caledonia can be used as examples and replicated elsewhere, particularly in the Pacific region and other French-speaking territories
- INTEGRE provides assistance for local integrated management policies so as to strengthen and improve the process behind shared management of the environment. The three provinces, which are responsible for the environment, are also special project partners.
- Natural environment conservation helps society become more resilient to global change and natural disasters. It also helps maintain traditional culture and fosters greater harmony
- It is beneficial for OCTs to cooperate with each other and other Pacific territories when introducing regional solutions to environmental and sustainable-development issues. The European Union and SPC provide them with support for developing their projects

OPEN ACCESS TO INFORMATION

Various communication resources and materials have been set up:

- A website presenting the project and its progress by posting news items and downloadable documents
- A digital library offering open access to all the materials generated by project implementation including reports, posters, workshop minutes, slideshows, flyers and photo and video library
- A graphic charter and accessories bearing the INTEGRE logo to improve the project's visibility and branding
- INTEGRE is promoted in New Caledonia and its results disseminated by
- Issuing press releases to the local press, including Les Nouvelles Calédoniennes newspaper, local radio, NCTV, NC Première and local magazines, and to partners
- Posting content on the website
- The project management team and some of its other teams taking part in local, regional and international events to talk to the public and partners at agricultural and science fairs, forums, workshops and conferences. Appropriate materials are produced for these events.



Website homepage



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BALANCE SHEET AND APPENDICES

PROJECT OVERVIEW

Objectives	Activities	INTEGRE contribution	INTEGRE activity total	INTEGRE site total
SOUTHERN TIP OF THE MAIN ISLAND				
1. Strengthening participatory management.	1.1 Strengthen participatory management with the MCs	EUR 135,756 XPF 16.2 M	EUR 231,288 XPF 27.6 M	EUR 606,712 XPF 72.4 M
	1.2 Carry out local initiative pilot activities	EUR 95,532 XPF 11.4 M		
2. Contribution to managing pressure from visitor traffic in Great Southern Lagoon marine and coastal environments.	2.1 Study into the impact of increased traffic in the Great Southern Lagoon	EUR 25,140 XPF 3 M	EUR 212,852 XPF 25.4 M	
	2.2 Assess and monitor fisheries and other resource use in the Great Southern Lagoon	EUR 65,364 XPF 7.8 M		
	2.4 Build facilities on over-visited sites on the Isle of Pines, in collaboration with the Isle of Pines management committee	EUR 33 520 XPF 4 M		
	2.5 Make teaching aids for the management committees	EUR 14,246 XPF 1.7 M		
	2.7 Take part in the seabird conservation plan: provide facilities on at least two offshore islands identified as priorities for bird conservation	EUR 20,112 XPF 2.4 M XPF		
	2.9 Take part in the seabird conservation plan: monitor nesting birds on all the islands off the southern horn	EUR 29,330 XPF 6.5 M XPF		
3. Environmental strategy for the southern tip of the main island.	3.1 Assessment, studies, tools	EUR 162,572 XPF 19.4 M XPF	EUR 162,572 XPF 19.4 M	

NORTH-EASTERN COASTAL AREA (ZCNE)				
1. Strengthening participatory management throughout the ZCNE and networking related management committees and related associations to network.	1.1 Help facilitators, capacity building	EUR 168,857 XPF 20.1 M	EUR 271,093 XPF 32.35 M	603,695 XPF 72.04 M
	1.2 Introduce networking tools	EUR 18,436 XPF 2.2 M		
	1.3 Fundraising, except for Northern Province	0		
	1.4 Set up participatory turtle monitoring in the ZCNE	EUR 50,280 XPF 6 M		
	1.5 Implement cross-sector activities	EUR 33,520 XPF 4 M		
2. Strengthening participatory integrated management of the Poindimie UNESCO property.	2.1 Facilitate participatory management at Poindimie	EUR 128,005 XPF 15.275 M	EUR 128 005 XPF 15.275 M	
3. Collecting and processing end-of-life vehicles (ELVs) and wrecks.	3.1 Remove long-standing ELV stocks and wrecks from Pouebo and Ouegoa by involving the MCs	EUR 41,900 XPF 5 M	EUR 41,900 XPF 5 M	
4. Protecting and restoring forest in the drinking-water catchment area in Touho municipality.	Cull invasive ungulates, restore plant cover, coordinate and facilitate	EUR 162,698 XPF 19.415 M	EUR 162 698 XPF 19.415 M	

Objectives	Activities	INTEGRE contribution	INTEGRE activity total	INTEGRE site total
OUVEA & BEAUTEMPS-BEAUPRE				
1. Strengthening governance and participatory management of Ouvea & Beautemps-Beaupre lagoons.	1.1 Strengthen facilitation	EUR 108,940 XPF 13 M	EUR 247,210 XPF 29.5 M	EUR 603,360 XPF 72 M
	1.2 Set up site surveillance and monitoring	EUR 125,700 XPF 15 M		
	1.3 Set up participatory reef monitoring	EUR 12,570 XPF 1.5 M		
2. Organising ecotourism development in Mouli District.	2.1 Set up facilities for tourists on the site	EUR 146,650 XPF 17.5 M	EUR 167,600 XPF 20 M	
	2.2 Design a flyer	EUR 12,570 XPF 1.5 M		
	2.3 Record traditional knowledge	EUR 8,380 XPF 1 M		
3. Managing the Lekiny-Fayava traditional reserve.	3.1 Obtain official recognition for the reserve and set up a management plan	0	EUR 60,336 XPF 7.2 M	
	3.2 Conduct a study for restoring the mangrove landward margin	EUR 10,056 XPF 1.2 M		
	3.3 Study into the effects of erosion on the shoreline	EUR 50,280 XPF 6 M		
4. Invasive species control.	4.1 Eradicate rats from a test island	EUR 63,688 XPF 7.6 M	EUR 90,504 XPF 10.8 M	
	4.2 Strengthen black rat biosecurity	EUR 26,816 XPF 3.2 M		
5. Awareness and communication.	5.1 Set up a teaching aid bank	EUR 4,190 XPF 0.5 M	EUR 37,710 XPF 4.5 M	
	5.2 Design extra materials	EUR 25,140 XPF 3 M		
	5.3 Carry out school awareness projects	EUR 8,380 XPF 1 M		

CROSS-SECTOR ACTIVITIES					
1. Building capacity and fostering exchanges among the New Caledonia World-Heritage management committees.	1.1 Management committee forum	EUR 25,140 XPF 3 M	EUR 71,230 XPF 8.5 M	EUR 347,126 XPF 41.4 M	
	1.2 Feedback meetings for management committees so they can share their experiences (2015 and 2016)	EUR 8,380 XPF 1 M			
	1.3 Training for management committee members, field facilitators and provincial technicians working on WH issues	EUR 37,710 XPF 4.5 M			
2. Setting up a pilot organic farm network based around Do Neva Agricultural High School, Houailou.	2.1 Organic farming technical trials	EUR 155,030 XPF 18.5 M	EUR 175,896 XPF 20.99 M		
	2.2 Meetings and training	EUR 20,866 XPF 2.49 M			
3. Supporting the development of a climate-change adaptation strategy in New Caledonia.	3.1 Detailed description of climate-change effects using locally-adjusted models	EUR 85,000 XPF 10.14 M	EUR 100,000 XPF 11.9 M		
	3.3 Support implementation of a CCA strategy in NC	EUR 15,000 XPF 1.79 M			

BUDGET TOTAL NEW CALEDONIA: EUR 2,160,894 / XPF 257,863,171

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“

Many people in New Caledonia realise that their island group is a gem that needs preserving. Our primary objective is to create or strengthen human momentum behind sustainable environmental management projects.

It's a highly complex task, but the reward is beyond measure when it works!”

”



Brief bio of Yolaine Bouteiller,
INTEGRE Deputy Project Coordinator
in New Caledonia

An Agricultural Engineer majoring in Ecology and Biodiversity Management (AgroParisTech, 1998) with a Master's degree in Botany from Reading University (UK, 2000), Yolaine Bouteiller monitored and reviewed LIFE-Nature projects for the European Commission (2001-2007), worked as a research officer for the French Ministry of the Environment (2007-2011) and oversaw protected area management for the Southern Province Department of the Environment (2011-2012) prior to joining the INTEGRE team in 2013.



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