

COMPONENT 2C - PROJECT 2C1
Bioprospection & Marine Active Substances

Improvement of legal framework

August 2009

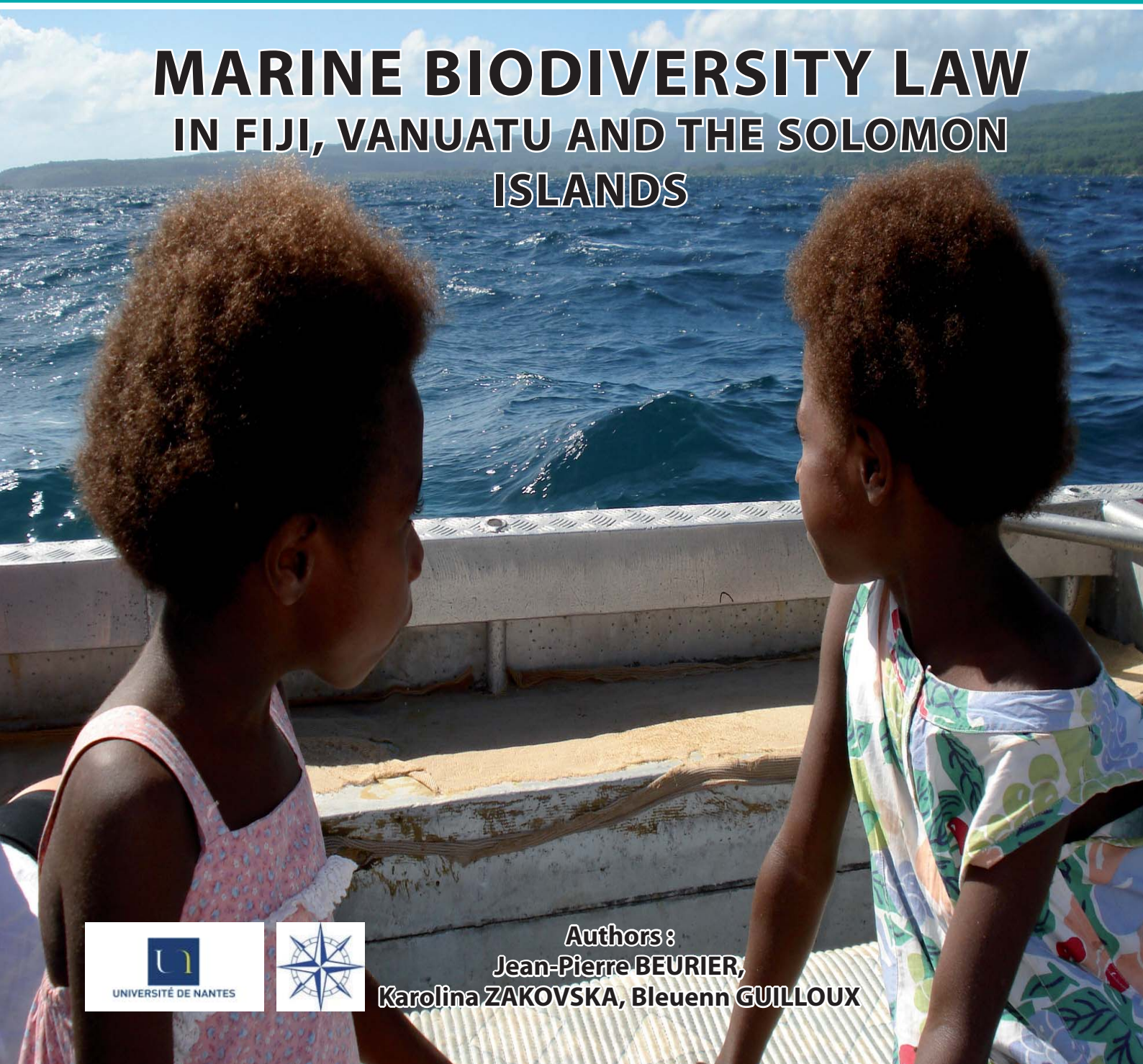
CRISP



Coral Reef InitiativeS for the Pacific
Initiatives Corail pour le Pacifique

SYNTHESIS OF THE FINAL REPORT

MARINE BIODIVERSITY LAW IN FIJI, VANUATU AND THE SOLOMON ISLANDS



Authors :
Jean-Pierre BEURIER,
Karolina ZAKOVSKA, Bleuenn GUILLOUX

CRISP



Coral Reef InitiativeS for the Pacific
Initiatives Corail pour le Pacifique



The CRISP programme is implemented as part of the policy developed by the Secretariat of the Pacific Regional Environment Programme for a contribution to conservation and sustainable development of coral reefs in the Pacific.

The Initiative for the Protection and Management of Coral Reefs in the Pacific (CRISP), sponsored by France and prepared by the French Development Agency (AFD) as part of an inter-ministerial project from 2002 onwards, aims to develop a vision for the future of these unique ecosystems and the communities that depend on them and to introduce strategies and projects to conserve their biodiversity, while developing the economic and environmental services that they provide both locally and globally. Also, it is designed as a factor for integration between developed countries (Australia, New Zealand, Japan and USA), French overseas territories and Pacific Island developing countries.

The CRISP Programme comprises three major components, themselves composed of projects, which are:

Component 1A: Integrated Coastal Management and Watershed Management

- 1A1: Marine biodiversity conservation planning
- 1A2: Marine Protected Areas (MPAs)
- 1A3: Institutional strengthening and networking
- 1A4: Integrated coastal reef zone and watershed management

Component 2: Development of Coral Ecosystems

- 2A: Knowledge, beneficial use and management of coral ecosystems
- 2B: Reef rehabilitation
- 2C: Development of active marine substances
- 2D: Development of regional data base (ReefBase Pacific)

Component 3: Programme Coordination and Development

- 3A: Capitalisation, value-adding and extension of CRISP Programme activities
- 3B: Coordination, promotion and development of CRISP Programme

CRISP Coordinating Unit (CCU)
Programme manager: **Eric CLUA**
SPC - PO Box D5
98848 Noumea Cedex
New Caledonia
Tel./Fax: (687) 26 54 71
E-mail: ericc@spc.int
www.crisponline.net

COMPONENT 2C

Marine Bioprospection

Component contact person:

Cécile DEBITUS

IRD - UMR 152

University Paul Sabatier

Toulouse II

Science Faculty

31062 Toulouse cedex 9

France

Tel.: (33) 5 62 25 98 11

Fax: (33) 5 62 25 98 02

E-mail: cecile.debitus@ird.fr

■ PROJECT 2C-1 :

Legal framework - Upgrading island country legislation for the sharing of benefits from development of active marine substances

■ PROJECT 2C-2:

Taxonomy - Improvement of knowledge of benthic reef invertebrate and algae taxonomy

■ PROJECT 2C-3 :

Technological aspect - Identification of active marine substances

■ PROJECT 2C-4 :

Institutional strengthening - Training of Pacific island resource persons

CRISP is funded by :



CORAL REEF INITIATIVES FOR THE PACIFIC (CRISP)
COMPONENT 2C: BIOPROSPECTION AND MARINE ACTIVE SUBSTANCES

**Synthesis of the final report on Legal aspects related
to the valorization¹ of marine active substances:
MARINE BIODIVERSITY LAW IN FIJI, VANUATU AND
SOLOMON ISLANDS**

By Pr. Jean-Pierre Beurier, Dr. Karolina Zakovska and Bleuenn Guilloux
Researchers at CDMO, Law Faculty, University of Nantes.

¹ The term valorization comes from the verb ‘to valorize’ which refers to the increase in value of an item of right (sovereignty, jurisdiction, property). In the field of biodiversity, it designates the action to give or assign a new value (economic, scientific, cultural, etc.) to a component of the environment such as animals, plants, or any living resource and part of it (molecules, genes, etc.). Contrary to a simple extraction or transformation, the valorization implies a gradual modification of the valorized resource nature and value. Such process is characterized by the contingency, ie “a possible but not very likely future event and condition, an eventuality” (Collins english definition Thesaurus). In the present case, there are many possible events and conditions: first, the discovery of marine living resources, secondly, the fact that this discovery could be at the root of a more detailed study, which could thirdly maybe conduct to the development of a potential biotechnological application and more generally, could lead at least to scientific results.

TABLE OF CONTENTS

I- Introduction: General presentation and methodology	p. 3
1- Object of the study	p. 3
2- Work method	p. 4
3- Report presentation	p. 5
II- General characteristics of the three legal systems and determination of convergent or divergent points	p. 6
1- General characteristics	p. 6
A- The political system	
B- The legal system	
C- The role of custom in social life	
2- Laws in force	p. 7
A- Land ownership	
B- Law of the Sea	
C- Marine fisheries Law	
D- Environmental Law	
III- Rules applicable to Marine Scientific Research (MSR): Law lagging behind practice	p. 9
1- A partially regulated activity	p.12
2- Incomplete administrative procedures	p. 12
IV- Identification of legal gaps and necessary evolution of the legal framework	p. 16
1- Scientific approach : natural heritage inventories	p. 16
2- Spatial protection : marine protected areas	p. 16
3- Strict protection of certain species	p. 16
4- Amendments to fisheries laws:	
Deep water corals and fishing for ornamental species	p. 17
5- Regulation of marine bioprospection	p. 18
A- Identification and qualification of marine bioprospecting	
B- Ways to improve MSR Law	
6- Protection of bio-technological inventions	p. 20
A- Intellectual property rights	
B- Proposals for improvement	
V- Conclusion	p. 22
1- Formulation of the problem	p. 22
2- Formulation of a <i>de lege ferenda</i> solution	p. 22

I- INTRODUCTION: GENERAL PRESENTATION AND METHODOLOGY

The research agreement signed on 19th December 2005 by the Institute of Research for Development (IRD), the University Paul Sabatier (Toulouse III) and the University of Nantes, the laboratories Pharmacochimie of Natural Substances and Pharmacophores Redox (UMR 1165) and the Centre of Maritime and Ocean Law (EA 1165, CDMO) led to the international research program « Coral Reef Initiatives for the Pacific» (CRISP). Within the CRISP program, the research work was incorporated under component 2C: Bioprospection and marine active substances, CDMO being in charge of the section: Legal aspects related to the valorization of marine biodiversity. This study was undertaken by a team of researchers from CDMO as named below:

- Professor Jean-Pierre BEURIER, Director of Research
- Bleuenn GUILLOUX, researcher
- Doctor Karolina ZAKOVSKA, researcher

1- OBJECTY OF THE STUDY

Studying the marine biodiversity valorization process in the light of legal science requires answering two preliminary questions: What is the state of international law in force in partner States and what is the state of their positive law capable of influencing this valorization? The answer to these questions firstly allows us to document the enforceable international law and to compare it with the domestic law of partner States. This legal snapshot leads to an initial conclusion on the differences between the necessary and existing law.

A second approach aims to search the relevant local authorities objectives regarding the valorization of marine biodiversity in areas under sovereignty or jurisdiction of partner States. These objectives are then compared with the international conventions relating to the rational and sustainable management of natural resources which had been ratified by the partner States and on which are founded regulations for the protection of the marine environment.

A third approach then needs to set the legal snapshot and the objectives stated above against all the branches of law concerned with the valorization of marine biodiversity. Seven branches of law have to be studied successively:

- International Law of the Sea (legal nature and regime of maritime zones, local implementation of the United Nations Conventions on the Law of the Sea (UNCLOS));
- Coastal Law (foreshore regime, seabed and subsoil regime, coastal zones management, access to natural resources);
- Marine environmental Law (sensitive spaces, endangered species, actions against marine pollution sources, European Union/ African, Caribbean and Pacific group of states (ACP) programmes, tourism management, implementation of protocols related to conventions adopted within the Regional Seas Programme of the United Nations Environment Programme (UNEP), implementation of the Convention on International Trade in Endangered Species of wild Fauna and Flora (CITES));
- Coastal resources Law (marine fisheries regime, aquaculture regime; implementation of Law of the Sea, recommendations from concerned international fishery bodies, fishing licenses to exploit the admissible catch volume,

administrative authorizations for marine cultures, police controls);

- Marine Scientific Research (MSR) Law (inter-state cooperation legal framework, land, sea and underwater research permits legal framework; inventories legal framework, bioprospection regime, collections and samples shipping standards, domestic law regarding the access to information and to natural resources, benefit-sharing system, improvement of legal capacity building system of local partners, initial or ongoing training)
- Intellectual property Law (plant variety protection certificate regime, patents regime, recognition and protection of traditional knowledge and know-how; Convention on Biological Diversity (CBD), Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and Indigenous and tribal peoples Convention (No 169, International Labor Organization), Commercial Law (business companies, joint-ventures and foreign investments regime, fiscal regime, study of funds movements and nationalizations)

2- WORK METHOD

The seven branches selected can be modelled as following:

LAW OF THE SEA	⇒ Legal nature of maritime zones ⇒ Legal regime of maritime zones	⇒ UNCLOS implementation ⇒ Acts and rules of implementation and control (decrees, regulations, ...)
COASTAL LAW	⇒ Regime of the foreshore ⇒ Regime of the seabed and the subsoil of the sublittoral ⇒ Regional programmes on coastal zone management	⇒ Coastal zone management ⇒ Coastal states laws, customs, role of public and private enterprises
MARINE ENVIRONMENTAL LAW	⇒ Sensitive spaces protection ⇒ Species protection ⇒ Water pollution ⇒ EU/ACP programmes ⇒ Tourism Law	⇒ Implementation of regional seas protocols (marine protected areas) ⇒ Legal framework at national and decentralised levels ⇒ Acts and implementing legislation on trade in endangered species (CITES)
COASTAL RESOURCES LAW	⇒ Fisheries Law ⇒ Aquaculture Law ⇒ Natural resources customary Law	⇒ Recommendations of relevant fisheries organizations ⇒ Fishing licenses to exploit admissible catch volume ⇒ Administrative authorizations for marine culture ⇒ Police control of exploitation
MARINE SCIENTIFIC RESEARCH LAW	⇒ interstate cooperation legal framework ⇒ Land, sea or diving research authorizations legal framework ⇒ Inventories legal framework ⇒ Bioprospection regime ⇒ Samples regime	⇒ Acts and rules (decrees, regulations, ...) designated to facilitate and control the satisfactory conduct of research ⇒ Acts and rules (decrees, regulations, ...) concerning access to resources and benefits sharing
INTELLECTUAL PROPERTY LAW	⇒ Plant variety protection certificate regime ⇒ Patents regime ⇒ Recognition of traditional knowledge regime ⇒ Customary rights	⇒ CBD implementation ⇒ UNCLOS implementation ⇒ TRIPS implementation ⇒ Convention OIT 169 implementation
COMMERCIAL LAW	⇒ Joint ventures regime ⇒ Foreign investments regime	⇒ Acts and rules (decrees, regulations, ...) on companies taxation, capital repatriation and nationalizations

The questions raised by this table were subject of fieldworks undertaken in the three partner States in 2006 and 2007:

- Archipelago of the Solomon Islands
- Archipelago of the Fiji Islands
- Archipelago of Vanuatu

The fieldworks were prepared either directly with local contacts made during the Workshop on protection and management of coral reefs in the South Pacific held in Noumea from the 24th to the 28th of January 2005, or by the intermediary of researchers from the University of the South Pacific, or finally by the intermediary of the French Embassy on location or the nearest one.

During the fieldworks, the chosen work method was to identify and then to collect the relevant legislation of partner States and finally to proceed with a set of interviews of local administration representatives, choosing the administrative branches in charge of the themes stated in the above table. This allowed us to understand the administrative functioning of the concerned States, then to study the practical implementation of the legislation and finally to determine the boundary between the implementation of written law and that of the customary one. This method allowed us to identify areas of overlapping or conflicting administrative jurisdictions as well as legal gaps.

3- REPORT PRESENTATION

The final report published on the CRISP website² is composed of three reports focused on the partner States which make up the backbone of the study and are opening to an inventory of positive law and an analysis of the degree of implementation of international law. Then follows a synthesis of the general characteristics of the partner States legal systems, of the techniques employed to facilitate MSR and a table of signatures and ratifications of international and regional conventions in force. We attempted to identify the legal gaps and evolution of legal framework needed at the national and local levels to meet the international law requirements and interests of partner States. Finally, we proposed in a conclusion solutions to be taken towards a legislative unification and further cooperation for the protection of marine biodiversity within Melanesia.

² www.crisponline.net

II- GENERAL CHARACTERISTICS OF THE THREE LEGAL SYSTEMS AND DETERMINATION OF CONVERGENT AND DIVERGENT POINTS

The three partner States are alike in many ways on social level as well as on the legal one. This is explained by several factors. Firstly, it is due to their geographical situation: they are all located in a sub-region of Oceania called Melanesia. They are situated in the Indo-Pacific basin, a bio-geographic region within the richest on the planet from the point of view of marine biodiversity. They are archipelagos comprising numerous islands spread over a large area, a fact which considerably complicates the implementation of legal rules passed by the central powers. Thus local management plays a primordial part. Secondly, similarities arose from analogous historical development. The three States were colonies of important western powers and have obtained independency during the movement of decolonisation of the 1970s and 1980s while largely retaining the political and legal system of their colonial powers, especially the British one. Thirdly, the three States have a common cultural base, namely the Melanesian culture which is reflected on the ideological as well as on the institutional level. Their societies obey the Customary Law which has to be taken into account in every effort to improve the existing legislation. Finally, the three States are characterised by a similar economic situation. They all belong to the group of developing islands States. The limited financial means noticeably influence their ability to answer environmental needs.

Despite all their similarities, some differences are evidently present as well among partner States, including within the legislation regarding the protection and sustainable use of their marine biodiversity. Nevertheless, they do not consist of differences of principle. The three States face similar problems, so the answer is logically similar too. All the more because all three are participating in the forums of regional co-operation which prepare appropriate recommendations. In fact, the partner States can inspire one another and numerous propositions can be presented to all of them.

1- GENERAL CHARACTERISTICS

A. The political system

The three partner States are sovereign democratic and unitary republics based on a parliamentary system. After independence, they all stayed linked to the United Kingdom by becoming members of the *Commonwealth*; however Fiji was suspended after the coup of December 2006. The political system of the three States follows the western democratic model with a horizontal separation of powers (legislative, executive, judicial) as well as a vertical one (territorial decentralisation); it is however strongly flavoured by Melanesian culture. The traditional chiefs - as representatives of native populations - play an important role in the management of partner States.

B. The legal system

The legal system of the partner States can be qualified as mixed: it brings together the characteristics of British *Common Law* and of customary law (with, as well, traces of Roman Law in Vanuatu). The main features of partner States' legal systems are established

in their respective Constitutions where customary law is recognised as a source of law, (the delicate issue of its relation with the written law being resolved in favour of the latter). In practice, however, this rule poses some problems, especially in the villages where tradition plays an essential role. Regarding its structure and its content, the written law is quite rich and complex, including in the field of environmental protection. The hierarchy of norms hardly differs from the western legal systems (constitution, national laws, implementing regulations).

C. The role of custom in social life

Custom plays a primordial part in all the partner States. It guides life of society and must be considered if a legal norm is to be respected. The influence of custom can be seen especially in villages where social organisation is typical of the native Melanesian culture, based on a collective and local social life guided by a respected dignitary: the customary chief. Important decisions are taken by the village council after deliberation. The role of customary chiefs is reflected in the composition of public institutions at each level of division of the national territory (local, provincial, national). Chiefs are part of the deliberative as well as executive bodies and they are called upon to decide contentious cases involving custom. Special customary bodies (councils of chiefs) are present at national level as well as at lower levels.

2- LAW IN FORCE

A- Land ownership

The way land is perceived is one of the most important common characteristics of the partner States. In Melanesian culture, the land cannot be owned *stricto sensu* as it is in western legal systems, where ownership means the absolute power of man over a subject matter (corporeal and incorporeal object of property). It is considered to be “the mother” and human beings its “custodians” on behalf of the dead as well as of the future generations. It is possible to use it, but not to damage or to alienate it. In coastal villages, the relationship with the land encompasses adjacent marine areas. Villagers consider the latter to be part of “their” customary territory. Villages control the resources originated from their own territory (not owned as defined by western culture). No foreign exploitation is possible without their consent. Customary rights regarding the land (meaning a more or less wide territory) are recognised in all partner States; terms used in this sense are “custom ownership of land” or “land tenure” and, regarding marine areas adjacent to the coast, “customary marine tenure”. However, recognition by the written law of customary rights of coastal villages is not comprehensive as long as the content and extent of the spatial application of these rights are not clear.

B- Law of the Sea

The three partner States have ratified the United Nations Convention on the Law of the Sea (UNCLOS) and fully apply its content. They have all drawn an archipelagic baseline which has allowed them to considerably enlarge the maritime zones under their jurisdiction. Beyond this line, they all claim a territorial sea of 12 nautical miles and an exclusive economic zone of 200 nautical miles. They also have legal norms concerning the

continental shelf. However the relevant legal regulation is rather general and not always adapted to the practical uses of marine biological resources.

C- Marine fisheries Law

Considering the extent of maritime zones under jurisdiction of the partner States, a comprehensive legal regulation of fishing activities is called for to ensure a rational management of halieutic stocks. The partner States participate in the important international conventions, on global as well as on regional level and have at their disposal national fisheries laws supplemented by more or less detailed rules of application. The legal regulation deals both with access to resources and conservation measures (protected species, forbidden fishing practices, etc.). The legal definitions of main terms - fishing and fish - embrace any catch (potential conflict with marine scientific research) of every marine animal, for any purpose (alimentary, ornamental, research). Regulations in force in partner States concentrate mostly on off-shore fishing practised by national or foreign vessels. Less attention is given to coastal fishing and coral reef resources. All three States forbid fishing with explosives, poisons and other noxious substances. Regarding other issues (protection of species, designation of marine reserves, scuba-assisted fishing, collecting of aquarium fish, etc.), regulation is left to the discretion of the appropriate minister who can regulate them by issuing a decree. However this right is seldom used, partly because of the customary fishing rights of coastal villages. These rights are recognised in all three partner States. Although their content is rather vague, they imply a *de facto* control over resources, including determination of closed areas, periods and protected species. The authority of the central power is weakened in this context and co-operation with coastal communities becomes necessary. Precising the rights and obligations of native communities would be desirable, not only for the legal protection of foreigners wishing to access to resources, but also for the protection of the latter and finally for the protection of communities' own rights. From a general point of view, the lack of means of control remains a major problem.

D- Environmental Law

The three partner States are characterised by an important terrestrial and marine biological wealth and by a largely pristine nature. However, economic development increases risks for the latter and environmental legislation needs to be amended to counter them. The partner States still have a lot to achieve in this area. Their participation in relevant international conventions differs, Fiji being the most active one. Regarding domestic law, each of the three States possesses a recently adopted general law on the environment and several texts on specific issues. General laws are similar, they are all framework laws comprising some basic dispositions (definitions, administrative questions, state of the environment monitoring) and regulation of the environmental impact assessment (EIA) procedure to which are submitted all potentially dangerous activities³. In

³ However, none of these laws is as complete as was the ambitious draft law on sustainable development (Sustainable Development Bill) prepared in Fiji since 1996 and finally abandoned.

addition to general law, partner States have adopted several important texts related to specific environmental issues. The protection of species is rather incomplete. It concentrates on the problem of international trade in endangered species and on the protection of certain marine species in the fishery context. The legal protection of natural spaces is similarly fragmentary. Fisheries laws provide for the possibility of marine reserves being created. Nevertheless, the three partner States seldom make use of this possibility. Other types of protected areas are provided for especially by the law of Vanuatu, the most interesting one being the special concept of community conservation areas. This concept acknowledges the central role played by the customary “owners” in the creation and the management of “their” conservation area. Despite certain problems such as the villages’ dependency on financial and technical support provided by the government, the concept seems promising as it is adapted to the Melanesian culture. A similar type of protected areas is starting to become popular in Fiji (Fiji Locally Managed Marine Areas), even if in this case the legal support is lacking at present. Positive law of the partner States tackles other environmental issues which closely relate to the subject of our study (introduction of exotic species, export of marine organisms, coastal development, etc.). From a global point of view, however, the regulation is fragmentary and only partially corresponds to the international commitments of the partner States.

III- RULES APPLICABLE TO MARINE SCIENTIFIC RESEARCH (MSR): LAW LAGGING BEHIND PRACTICE

The three partner States are small developing island States which under the terms of CDB belong to the category of countries providing genetic resources⁴ (art.2). They do not have a long history of scientific research. They show disparities regarding scientific and technological development as well as regarding economic and social development. The present conditions pertaining to research vary despite a common cultural base. The three archipelagos have a relatively insignificant terrestrial territory compared to the area of their maritime territory. This imbalance is accentuated by the lack of means of control they have over national maritime zones (EEZ, CS) remote from populated areas and more generally from coasts. Places of maritime activities (fishing or aquaculture zones for example) cannot be supervised as a whole. It is not surprising that MSR activity, considered as secondary, is not always regulated in a way adapted to its practical conditions.

These small developing island States rely heavily on foreign aid for their own economic, scientific and technological development. In order to regulate activities of MSR, they seem to have chosen a legal position similar to the one adopted by their previous colonial powers (Solomon, Fiji) or the one dictated by existing international law (Vanuatu). Nothing indicates that they have developed their own vision of scientific research. The University of the South Pacific (USP) however plays an important role in the region but its action remains limited by its financial and technological means.

⁴ “‘Country providing genetic resources’ means country supplying genetic resources collected from in-situ sources, including populations of both wild and domesticated species, or taken from ex-situ sources which may or may not have originated in that country”. In the absence of modern stocking capacities (banks or collections of ex-situ conservation) for biological and genetic material (DNA, specimens of species), partner states can only be considered as those countries providing genetic resources from in-situ sources.

Rules pertaining to Marine Scientific Research (MSR) in the partner States

PARTNER STATES	LAWS	ADMINISTRATIVE PROCEDURE
SOLOMON	● Research Act (1982) - Definition of research (article 2) - Research permit issued by the Minister responsible for Research (article 3 (1)) - Research applications Committee (article 3 (2)) - Research Officer (article 3 (3)) ● Delimitation of Marine Waters Act (1978): Marine Scientific Research Regulations (1994) -Scrupulous respect of Part XIII UNCLOS (1982) -Respect of security standards ● Fisheries Act (1998) -Setting up of a Fisheries Advisory Council (advise the minister on proposals for fisheries development and research projects to be funded under the Fisheries management and development fund provided for under section 6 - Fisheries research (Article 19 : Fisheries research and survey operations) ● Wildlife Protection and Management Act (1998) - Mainly targets the trade of endangered species - Import and export permits issued for scientific research purposes (article 11(1)) - Research relating to threatened species research (article 35) ● Environment Act (1998) - Protection and conservation of the environment - Environmental impact assessment (EIA) and control of pollution - Role of the Environment and Conservation Division in the promotion of environmental research (articles 6 (k) et 7 (h))	<u>Standard form for research (Form RA) :</u> ● General form (all types of research) ● Information relating to applicant ● Subject(s) to be studied ● Areas/locality where research work is to be conducted ● Funding ● Method of research ● Uses of the research outcomes and benefits for Solomon Islands ● Certification of two referees <u>Standard form for MSR (Draft UN standard form A):</u> - Specific form - Information relating to applicant(s) - Description of project - Methods and means to be used in which the research is to be conducted - Facilities et equipment - Geographical areas in which the project is to be conducted - Port of call - Participation of Coastal State to the research project - Access to data, samples and results
FIJI ISLANDS	● Fisheries Act (1942, revised in 1976 and 1977) - Wide definition of fish (article 2) - -Exception to the use of nets for scientific purposes (art. 4B.3: Conditions of offshore licenses) ● Continental Shelf Act (1970) - Exploitation of natural resources (minerals and other non-living resources of the seabed and subsoil and living organisms belonging to sedentary species) - Marine Scientific Research (MSR) = legitimate use of continental shelf (article 10 (2) (g)) - Fall within the competence of the Ministry of lands and mineral resources ● Marine Spaces Act (1978) - Complies with Part XIII UNCLOS (1982) - Falls within the competence of the minister responsible for foreign affairs (article 11.a)) - Distinction made between MSR and fisheries research, requiring a fishing permit - No definition of these activities ● Draft law on sustainable development (Sustainable Development Bill, abandoned in	<u>No standard form for research application</u> Except in the case of research to be conducted in Fijian schools: not applicable for MSR

	1996) - Umbrella legislation • Title 254 on biodiversity prospecting • Endangered and Protected Species Act (2002) - Needs implementing regulations - Targets international and national trade, transit, transshipment and captive breeding and - artificial propagation of specimens of threatened or endemic species - Permits of exportation, re-exportation, importation, introduction from the sea - Research on endangered, threatened and exploited species (CITES Scientific Council) (article 7 (4) (e)) • Environment Management Act (2005) - Protection and sustainable use of natural resources - Concern of national importance: protection of coastal environment; relation of native Fijians with their ancestral territory - Recognition of the intrinsic values of ecosystems - Payment of research programmes through the Environmental Trust Fund established by the Act (Section 55) - Species : protected, threatened, genetically modified, exotic (in relation to the EIA) • Draft laws on fisheries and customary fishing rights (2005)	
VANUATU	• Maritime Zones Act (1981, revised in 1988) - Complies with part XIII UNCLOS - Exclusive jurisdiction of Vanuatu in order to authorise, regulate and conduct MSR in its EEZ and on its continental shelf (article 10) - MSR in the EEZ and on the CS = restricted activity requiring a licence granted by the responsible minister (article 11) - The responsible minister may by Order regulate the conduct of MSR within the archipelagic waters, the territorial sea or the EEZ (article 13) • Environmental Management and Conservation Act (2002) - The Director of the Department responsible for the environment must, among other things, undertake environmental research (article 4 (1) (g)) - EIA (article 11 and s.) - Bioprospecting (definition, authorisation procedure, sharing of benefits, recognition of traditional knowledge) (article 29 et s.) • Fisheries Act (2005) - Non-lethal research permits concerning marine mammals issued by the fisheries director (article 37) - Authorisations for test fishing or scientific research (article 43) in national waters issued by the fisheries Director (general conditions, fees)	<u>Application to undertake Research on Vanuatu Flora and Fauna</u> - Information relating to applicant - Research details (purpose, reasons, benefits, lists of researchers, of equipment and of materials to be used, length of time, island(s) intended to conduct the research on,, cooperation arrangements) <u>Code of ethics Agreement for foreign researchers undertaking researches within the Flora and Fauna of Vanuatu</u> - code of ethics for foreign researchers (Institutions, companies). These must, among other things: - arrange to work with local recognised researcher and organisation in Vanuatu; - obtain permission from national and provincial authorities as well as from landowners; - ensure that types of described species are deposited for Vanuatu in the Department of Forest Herbarium/museum - not collect endemic species without an agreement with the Vanuatu Government - Not collect more specimens than necessary <u>Research agreement</u> (Annexe 1 of the cultural policy of Vanuatu)

1- A PARTIALLY REGULATED ACTIVITY

In none of the partner States there is a homogeneous legal system regulating research activity and more specifically MSR. This is explained by the lack of definition and of recognition of this activity. Only the Research Act of the Solomon Islands (1982) defines research in general as “an endeavour to discover new facts by careful search and inquiry, scientific study or critical investigation of a subject -:

- (a) which will result in the publication of a report thesis, dissertation, academic article, book or manuscript: or;
- (b) with the purpose of making audio-visual recordings for academic or commercial purposes” (art. 2).

This definition is limiting. The research field is restricted to academic and cultural sectors, except for the audio-visual one. The Delimitation of Marine Waters Act (1978) as well as the MSR Regulations (1996) deal with research conducted within waters under sovereignty or jurisdiction. This is the partner State that possesses the most advanced regulation in this field, its law being the most scrupulous re-transcription of Part XIII of the UNCLOS.

In the Marine Spaces Act (1978) and in the Continental Shelf Act (1970), Fiji Islands content themselves only with a re-transcription of the UNCLOS rules regarding MSR in the EEZ and on the continental shelf. A distinction between halieutic research and MSR occurs in the law of 1978 without at the same time defining these two types of activity. This distinction is expedient only if bioprospecting is not linked to an activity preliminary to fishing which isn't the case in practice in this country. Indeed, the research unit of the Ministry of Fisheries actually assesses research applications, while the Ministry of Foreign Affairs assumes this capacity only for MSR which does not concern biodiversity. In the contrary, the Ministry of Fisheries is competent if the research focuses on marine biological resources even if they are not halieutic resources.

Vanuatu as well regulates MSR according to a spatial approach which wholly corresponds to Part XIII of the UNCLOS. The Maritime Zones Act (1981, revised in 1988) thus states that MSR in the ZEE and on the continental shelf is a restricted activity subject to a licence (art. 11). The responsible minister to issue such a licence is not specified. It is only stated in broad terms that “where no other provision is for the time being made by any other law for any such purposes, the Minister may by Order [...] regulate the conduct of scientific research within the archepaligic waters, the territorial sea and the economic exclusive zone” (art. 13 d)) No such order exists to our knowledge.

2- INCOMPLETE ADMINISTRATIVE PROCEDURE

No legal disposition of any nature clearly refers to the procedure to be followed regarding MSR in the partner States and this is mainly due to the non designation of a competent ministry.

In Vanuatu however, the Environmental Management and Conservation Act (2002) specifies the procedure to require a bioprospecting permit. The Biodiversity Advisory Council established by the act and headed by a Director, is clearly designated as the responsible authority to approve requests to undertake biological prospecting in Vanuatu. The biological prospecting includes any activity aimed to harvest or exploit all or any of the following: samples of genetic resources, samples of any derivatives of genetic resources, the knowledge, innovations and customary practices of local communities associated to these genetic

resources. Bioprospecting is undertaken for the purposes of research, development of products, conservation or industrial or commercial use, including investigative research and sampling, but does not include customary uses of genetic resources and their derivatives (art. 2). The other partner States could draw inspiration from this act to regulate bioprospecting on their own territories.

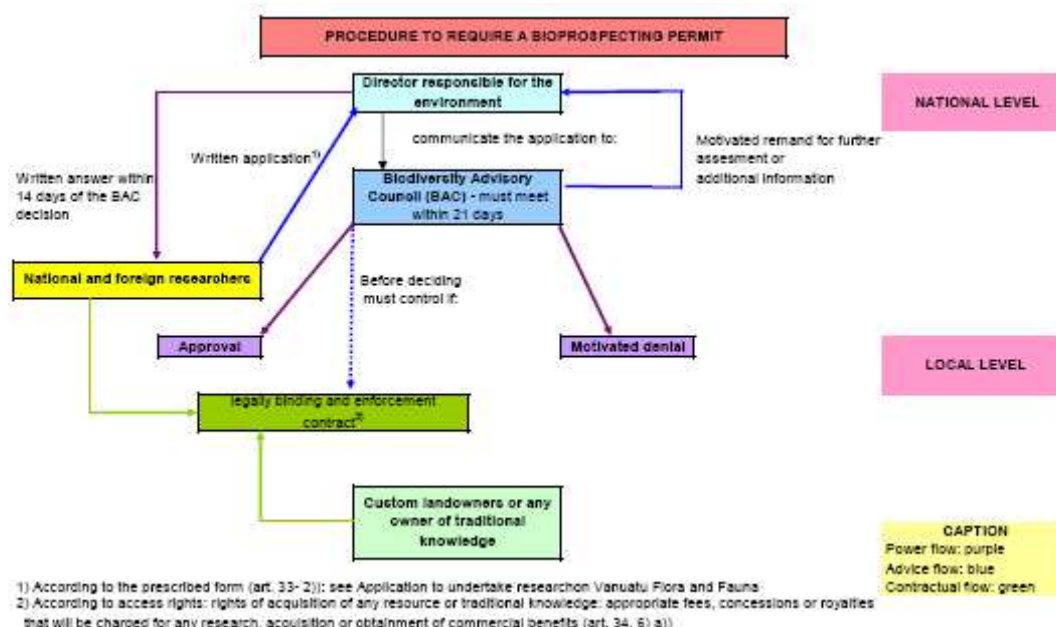


Figure 1: Procedure to require a bioprospecting permit in Vanuatu (Part 4, Division 1, Section 32 Environmental Management and Conservation Act, 2002, commenced in 2003)

In addition, the Environmental Unit supplies on its website⁵ an example of “application form to undertake Research on Vanuatu Flora and Fauna” as well as a “Code of Ethics Agreement for foreign researchers undertaking researches within the Flora and Fauna of Vanuatu”. Even if they are only guidelines, ie. non binding rules of conduct, these documents outline duties of researchers⁶ and the government of Vanuatu prior to undertake research on Vanuatu territory. They are quite suitable for MSR but we found no evidence of their practical use. Finally, Vanuatu enjoys a solid cultural policy favourable to research with the Cultural Centre being in charge of the facilitation, the coordination, the administration and the benefit sharing of all cultural research projects. It would be possible to be inspired by this policy, notably of its aspect dealing with custom, with the aim of establishing a policy in the field of research on biodiversity in Vanuatu and, why not, in all the partner States.

Besides research for educational purposes, there is neither clear procedure nor typical form (except for the United Nations draft standard form A⁷) allowing to determine the correct administrative procedure to be followed when presenting an application for research in Fiji islands. This ambiguity is a problem for the country and can hinder scientific co-operation. It can also create delays and extra costs for researchers as during the first scientific expeditions of component 2-C of CRISP in this country in 2006-2007.

⁵ www.biodiversity.com.vu

⁶ Researchs may mean foreign individual or company or an academic institution and others. It may also refer to local researcher or researchers that affiliate with foreign institutions or organizations.

⁷ “Application for consent to conduct marine scientific research in areas under jurisdiction of X State”.

At the present time, administrative procedures necessary to undertake MSR in the partner States are hard to grasp in the sense that there are no consistent rules of conduct and because competent authorities to consent to research applications are not clearly identified. Therefore conditions necessary to establish a climate of confidence between researchers and national authorities are not gathered together. These communication hurdles are echoed at the local level, native local communities and more generally the whole population might be kept out of research and of the decision-making process.

Generally, one must respect certain formalism before and at the time of the research application and that mostly to encourage courtesy and goodwill. All foreign researchers willing to study the marine environment of the partner States must submit an official written request to national authorities, preferably through diplomatic channels. Faced with the lack of clearer rules, the Minister of Foreign Affairs seems to be the representative to be consulted first. It is then essential to keep him adequately informed of MSR projects that are being prepared or undertaken.

Foreign researchers can also find a contact among national researchers. This person (or welcoming team) will allow them to be rapidly apprised of procedure to be followed. Melanesians attach a great importance to the spoken word. The handing down of knowledge, communication between members of a community (debate, customary ritual), the respect for others, etc. are verbal. Through networking with national researchers, foreign researchers become aware of the culture of the country where the research is undertaken, which is not necessarily the case when they rely solely on diplomatic channels. By the way, this kind of contact will be advantageous in obtaining favourable answers from the government as researchers will have to visit the villages adjoining the area of research

. A national scientific committee composed of scientists and politicians, of representatives of local communities and authorities (etc.) could act as administrative authority responsible for research carried out in partner States. The Solomon Research Act (1982) provides for the setting up of such a committee but we do not dispose of any information on its effective functioning. The responsibility of such an authority could be adjusted to fit the different sectors of research that the government wants to promote and facilitate. It could mean, regarding biodiversity, to undertake surveys, to give advice, to assent to projects aiming at the study of different elements of national marine, aquatic or terrestrial biological diversity. Furthermore, a regional model of research promotion could be envisaged for the whole Melanesia as the partner States possess common characteristics⁸.

⁸ See supra II- General characteristics of the three legal systems and determination of convergent and divergent points.

Synthesis of general characteristics and shortcomings of MSR regulation in the partner States

Points of convergence

- ⇒ Lack of legal definition of the MSR
- ⇒ Reduction of bioprospecting to a simple activity of collecting living resources
- ⇒ Collective rights of local communities over a part of marine areas and resources collected there:
unclear nature of these rights; ownership, use, consent
- ⇒ Experience in the field of MSR
- ⇒ Wealth of coral ecosystems
- ⇒ No designated minister responsible for MSR
- ⇒ Cultural context

Points of divergence

- ⇒ Legal definitions of bioprospecting and bio-genetic resources (presence, absence)
- ⇒ Role of local and customary authorities in the procedure of delivering permits for research or for samples collecting
- ⇒ Procedure- means of law enforcement
- ⇒ Regulation in matters of exportation of biological material (presence, absence)
- ⇒ Regulation in matters of introduction of exotic or invasive species (presence, absence)
- ⇒ Regulation in matters of *ex situ* conservation
- ⇒ Economic, scientific, technological and political context
- ⇒ Experience in matters of research concerning marine biodiversity

Law in force

- ⇒ MSR
- ⇒ Fisheries/ halieutic research
- ⇒ Bioprospecting
- ⇒ Intellectual property

Shortcomings of the legislation

- ⇒ Consent
 - Terms of obtainment from appropriate national authorities and from local communities and authorities
 - Procedure to be followed (See Figure 1 below)
 - Standard form
 - Issuing of permit
 - Means to control the smooth course of research works
- ⇒ Benefit sharing resulting from the exploitation of genetic resources: shortcomings
 - Conditions for obtainment of benefits
 - Types of benefits (monetary, non monetary, scientific, economic, etc.)
 - Benefits for local populations in terms of environmental protection
 - Impact on scientific co-operation and transfer of technologies

Practical shortages

- Mutual knowledge of the needs and practical expectations of partner States and of researchers
- Information regarding the procedures in force in both resource and research home State
- Confidence (impact on delays and costs of MSR)
- Determination of the role, rights and obligations of local and traditional communities as well as of customary owners

IV- IDENTIFICATION OF LEGAL GAPS AND NECESSARY EVOLUTION OF THE LEGAL FRAMEWORK

The three partner States have at their disposition a rather elaborate set of legal rules relevant to our study. Some improvements are necessary, most of them can, however, take form of implementing regulations. Our propositions concern mainly the following topics: creation of an inventory of natural heritage, spatial protection through marine protected areas, strict protection of certain species, amendments to fisheries laws (protection of deep water corals and ornamental species fishing), regulation of marine bioprospecting and protection of bio-technological inventions. Besides this, we recommend that the partner States overcome the uncertainty linked to the “customary marine tenure” by legally clarifying the rights and duties of the coastal native communities regarding the marine area adjacent to “their” land⁹.

1- SCIENTIFIC APPROACH : NATURAL HERITAGE INVENTORIES

The partner States enjoy a great biological wealth, on the land as well as in the sea. Yet, to efficiently protect the latter it is first necessary to have knowledge of it. None of the partner States have inventoried its biological heritage yet although pertinent legal rules exist. The aim of inventories should not be to compile all elements of biodiversity, but rather to list those presenting a special interest from a scientific, ecological or cultural point of view and, therefore, requiring protection. Inventories could concern both species and areas. The French inventory of NZEFFI (Natural Zones of Ecological, Flora and Fauna Interest) could serve as inspiration.

2- SPATIAL PROTECTION : MARINE PROTECTED AREAS

Protected areas are considered to be the privileged tool of biodiversity conservation. Partner States’ regulations regarding this tool are however rather incomplete. We are proposing regulations aimed at two types of marine protected areas: areas that are created and managed, on one hand, by the State authorities and, on the other hand, by the native communities as it is the case for the Fiji locally managed marine areas. As there are differences in the respective regulations of the partner States, our propositions differ (especially with respect to the form) for each of them.

3- STRICT PROTECTION OF CERTAIN SPECIES

The integral protection of certain species belongs to the traditional techniques of nature protection. It is important especially as far as migratory species are concerned for which a sole spatial protection (i.e. creation of a protected area comprising their habitat) is not enough. The marine waters of the partner States shelter numerous species for which a strict protection would be desirable because of their rarity or vulnerability. Yet, the legislation of the three countries deals only with two specific threats: fishing and international trade. The strict

⁹ A draft law regarding this issue – *Qoliqoli Bill* – has been presented to the Fijian Parliament in 2006. However, the legislative procedure was suspended after the coup of December 5 of the same year and has not been resumed since.

protection of certain marine species is furthermore complicated as they are often the subject of traditional uses by native communities (e.g. dolphins in the Solomon Islands, turtles in Vanuatu). Any proposal for a strict protection of such species would have to come with some kind of grass-roots education amongst native communities. Our concrete proposals differ according to the country concerned. In general, we put forward that the partner States inspire themselves with the appropriate French legislation (Book IV, Title Ier, art. L411-1 *et seq.* of the Environmental Code, concerning the protection of fauna and flora) and create lists of strictly protected species of flora and fauna that could include terrestrial as well as marine species.

4- AMENDMENTS TO FISHERIES LAWS: DEEP WATER CORALS AND FISHING FOR ORNAMENTAL SPECIES

The three partner States possess laws and regulations governing fishing which, with the exception of Fiji, are elaborate, modern and quite complete. The improvements we propose concern two specific issues: protection of deep water corals and fishing for ornamental species. This last activity has a considerable economic potential for the partner States on the condition that it is carried out in an ecologically responsible way.

Legal framework improvements suggested to partner States
Comparative table

Issue	Means of implementation		
	Fiji	Solomon Islands	Vanuatu
Creation of national heritage inventories	implementing regulations under section 61 EMA	implementing regulations under section 55 EA	implementing regulations under section 45 EMCA
Creation and management of marine protected areas (under responsibility of either the State or the native communities)	implementing regulations under section 61 para. 3(e) EMA	implementing regulations under section 55 EA	implementing regulations under section 42 para. 3 FA
			implementing regulations under section 45 EMCA (native communities)
Strict protection of certain species			
a/ general approach	implementing regulations under section 61 EMA	implementing regulations under section 55 EA	implementing regulations under section 45 EMCA
b/ within the fisheries laws	unification of existing rules / a special section and implementing regulations if a new law is passed	implementing regulations under section 59 para. 1(ii) or (v) FA	implementing regulations under section 78 para. 2(w) FA
Protection of deep water corals	implementing regulations under section 9 FA or under a new law if it is passed	implementing regulations under section 59 para. 1(iv) FA	implementing regulations under section 78 para. 2(c)
Fishing for ornamental species			implementing regulations under section 78 para. 2(v)

Fiji: EMA = Environment Management Act 2005
FA = Fisheries Act 1942

Solomon Islands:
EA = Environment Act 1998
FA = Fisheries Act 1998

Vanuatu:
EMCA = Environmental Management and Conservation Act 2002
FA = Fisheries Act 2005

5- REGULATION OF MARINE BIOPROSPECTION

Except for Vanuatu, none of the partner States has a precise legal framework aiming at regulating bioprospection and even less specifically marine bioprospection. Due to a certain inappropriateness of legal and procedural rules for scientific practice¹⁰, marine bioprospection

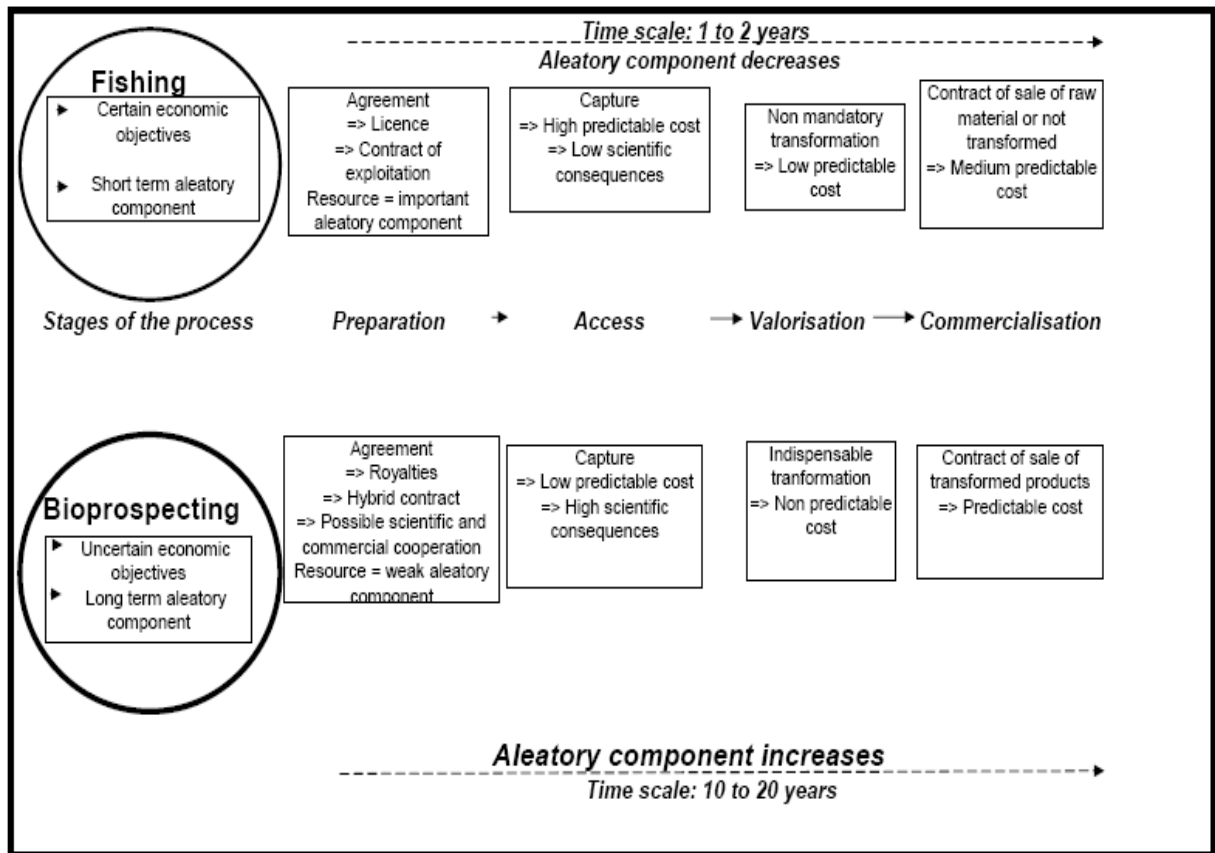
¹⁰ Inappropriateness exacerbated by the lack of human, financial and technical capacities.

in partner States risks being reduced to either a branch of the fishing industry, an economic activity of biological prospecting (e.g. looking for fish stocks), or else left bereft of its full specificity or theoretical dimension. However, marine bioprospection is distinguishable from the preparatory phase of fishing (fisheries research) and from the fishing activity itself. Bioprospection can be characterized as a composite activity, both economical and theoretical. It is simultaneously a form of MSR and the first step in a line of studies which can potentially lead to the development of a marketable product or bio-technological process. We are advising the partner States to make a clearer distinction in their legislation between fishing and bioprospecting. To this end, the following figure and comments can provide them some guidances.

A. Identification and qualification of marine bioprospection

The commercial activity of fishing revolves around the catching of fish destined for human consumption or industrial processes. Biological resources are not always transformed, and if any transformation is involved, it is in the form of processing or storage. The aim of fishing is purely commercial. Bioprospection is both a form of MSR and the first step in a line of studies potentially leading to the development of a product or marketable biotechnological process. Catch signifies the harvesting of substances or biological components (alive or dead) destined for treatment. The utilization of the resource leads to a veritable modification in substance. Bioprospection is characterized by possible commercial opportunities in the form of biotechnological applications (pharmaceutical products for example.) Contrary to fishing, the quantities taken are negligible, a few kilograms for example. Bioprospection can be characterized as a composite activity, both economical and theoretical.

Evolution of aleatory component in activities involving marine biological resources



According to figure 1 above, the aleatory component is less present in the beginning of the activity than it is at the end; the time frame and the cost are much more consequential¹¹; the social implications are more consequential; the financial risk is higher; the environmental impact is lower; the scientific gains are much higher.

In consequence, bioprospection management can not be subject to the same rules as access management for fisheries resources, even if the act of capturing specimens is technically similar¹² and the final objective is almost or even completely identical. The same management rules could lead to legal uncertainty and become a restraint to the valorization of results of marine bioprospection profiting partner States. At present, these States can take example from Vanuatu EMCA to manage marine bioprospection.

¹¹ The aleatory component (1 specimen out of 10,000 is viable), accessibility (equipment, specialized staff), time frame (between 5 and 19 years for the development of a marketable product) and finally the cost (from 100 to 300 million US dollars) of the studies which follow the bioprospecting add a greatly increased value to the prospected biological resources. These estimations are valid primarily for research performed in medical sector. See: **Mac LAUGHLIN (R.):** Foreign access to shared marine genetic materials: management options for a quasi-fugacious resource, Ocean Development and International Law, No 34, 2003, p. 297- 348.

¹² With a few exceptions, the material and techniques are similar. It must be noted, however, that certain actions are tolerated in the context of the MSR (for example the use of scuba diving for the means of collecting) whereas they are forbidden in the domain of fishing. The size of the equipment also differs from one activity to another (nets, trollars, etc.).

B. Ways to improve MSR Law

CRITERIONS OF DISTINCTION BETWEEN FISHING (FISHERIES RESEARCH INCLUDED) AND BIOPROSPECTING AT THE TAKING STAGE

DISTINCTION CRITERIONS	FISHING	BIOPROSPECTING
<u>Nature of resources</u>		
- quantitative	+++	+/-
- qualitative	+/-	+++
<u>Nature of taking</u>		
- catch	+++	+
- sample	---	+++
<u>Type of equipment</u>		
- size	++	-
- variety	++	+++
- selectivity	+/-	++
<u>Length of time of activity</u>		
- limited	---	+++
- regular	+++	-
- periodic	++	-
<u>Type of activity</u>		
- traditional	+++	-
- new	+	+++
<u>Outcomes</u>		
- alimentary	+++	---
- industrial	++	+
- intellectual	-	++
- unpredictable	---	+++
- certain	++	---
<u>Impact on the environment</u>		
- negative	+++	+/-
- immediate	++	+/-
- differed	+	+/-

**Caption: gradation depending on the importance of the select criterion, shown by + or – (+; ++; +++; +/-; -; -;-; ---)

⇒ Propositions:

- Survey or questionnaire to determine the interests of the different parties concerned (States of the resources, researchers);
- Regional standardisation (on the scale of Melanesia for example) of administrative procedures for research applications;
- Dissemination of legal information among the concerned parties;
- To establish a code of conduct for (marine) bioprospecting on the regional level (Melanesia or South Pacific) containing rights and duties of researchers and the partner States;
- Creation of a national or regional body to serve as an interface between governments and researchers (national focal point for the CBD, as is the Environment Unit in Vanuatu).

6- PROTECTION OF BIO-TECHNOLOGICAL INVENTIONS

A. Intellectual property law

PARTNER STATES	PATENTS ACTS	COPYRIGHTS AND ASSOCIATED RIGHTS
SOLOMON	• Draft Law on Industrial Property (2002)	• Copyright Act (1996) www.paclii.org/sb/legis/consol_act/ca133/
FIJI	• Patents Act (1978) www.paclii.org/fj/legis/consol_act/pa109/	• Copyright Act (1999) www.paclii.org/fj/legis/num_act/ca1999133/ + Copyright Regulations (border protection), 2003 Copyright Regulations (prescribed countries), 2003 Copyright rules (Tribunal rules of procedures), 2003
VANUATU	• Patents Act (2003) www.paclii.org/vu/legis/num_act/pa2003109/ www.paclii.org/vu/legis/num_act/roukpa2008484/	• Copyright and Related Rights Act (2003) www.paclii.org/vu/legis/num_act/pa2003109/

In Melanesian culture, the way intellectual property is perceived differs from that of western countries, the latter having been taken from international law. Physical nature (material or immaterial) has no importance insofar as this culture establishes no clear distinction between corporeal and incorporeal “ownership”, between the created item and the rights of its owner. Moreover, ownership is principally collective. Within the group, transmission of knowledge is hereditary and immemorial. If a third party wants to access the knowledge, they must attain a social position in the community. In most cases, knowledge is protected through secret.. The use of patents to protect (biotechnological) inventions seems incoherent with the idea of intellectual property rights in Melanesian traditional culture. Physical nature has no importance insofar as this culture establishes no clear distinction between corporeal and incorporeal ownership, between the created item and the rights of its owner. Moreover, ownership is principally collective. Within the group, transmission of knowledge is hereditary and immemorial. If a third party wants to access the knowledge, they must attain a social position in the community. In most cases, knowledge is protected through secret. Regardless, the establishment of protection rights for (biotechnological) inventions, adapted to the cultural, scientific and social specificities of partner States, could become a means for them to guarantee a fair and equitable sharing of benefits resulting from the exploitation of their genetic resources and establish a climate of confidence between users and providers of bio-genetic resources. Presently, these countries suffer from a lack of financial and technical capacities in the domain of intellectual property. To compensate this lack, a Melanesian or Oceanian office for intellectual property could be an option.

B. Proposals for improvement

- Make the Fijian law conform to the current international law (and in particular to the TRIPS Agreement)
- Accession of Vanuatu to the World Trade Organization (WTO)
- Adoption by the Parliament of the Solomon Islands’ draft law on patents
- Setting up of an intellectual property regional office¹³

¹³ See: WIPO- australia- Forum Secretariat of the Pacific Community work regarding this option, available at: www.wipo.int/meetings/en/details.jsp?meeting_id=4752.

V- CONCLUSION

1- FORMULATION OF THE PROBLEM

The major difficulty in the relation between national and international research institutions and State administrations in areas of high biodiversity lies in the uncertainty pertaining to the use of possible outcomes and in the lack of confidence between associated parties, the reason being the existence of an aleatory dimension or random variable involved in research for active substances. The aleatory dimension in a contract covers two ideas:

- That is: the asymmetry of information that brings imbalance in the relationship between the parties;
- Or: the parties are faced with the situation of an unpredictable future.

In the first case, one deals with an intentional withholding which could be qualified fraudulent by a court and which does not pose any problem from the legal qualification point of view; in the second case, the two parties face one or several unknowns. The analysis of this second case allows us to find two concepts:

- Contingency, because it cannot be affirmed whether something will or will not happen;
- The aleatory dimension, because outcomes are impossible to predict.

Consequently, one must estimate the probability of a satisfactory outcome. In these conditions, the contract must integrate an aleatory component. Aleatory contract, well known to civil law practitioners, can be qualified as a commutative bilateral contract (modelled on article 1104 of the French Civil Code). Activation of this type of contract depends on the occurrence of a uncertain event (according to the terms of article 1964 of the French Civil Code)¹⁴. As an example one could mention the bottomry loan in maritime law; the insurance premium is to be paid if the event does not occur (ship arrives safe), if it does (ship is lost by perils of the sea) the indemnity payment from the insurance policy is activated.

2- FORMULATION OF A SOLUTION LEGE FERENDA

Let us apply this type of contract to the economic valorization of bioprospection outcomes: the researching State and the State of origin of raw biological material for research (Country of origin of bio-genetic resources within the meaning of art. 2 CBD) contract to facilitate samples collecting. The two-party agreement binds the partners to set up a joint company with headquarters in the State of origin of bio-genetic resources. This company is dormant (no funds, no staff, no taxes) during the research that is subject to an authorisation for biological prospecting (ABP) in zones under jurisdiction issued by the State of origin of bio-genetic resources for a precise expedition of a given length of time. If the research results in the development of a marketable product, the joint company is activated. It becomes the entity applying for (a) patent(s) and will ensure the commercialization (make, sale and import) of the product(s) as well. The benefits will be shared according to the terms of the agreement. The dormant joint company is constituted in the form of a limited liability company or a venture capital company.

¹⁴ **BENCHABANE (H.)** : *L'aléa dans le droit des contrats*, thèse Rennes I, 1989.

GRUA (F.): *Les effets de l'aléa et la distinction des contrats aléatoires et des contrats cumulatifs*, Revue trimestrielle de Droit Commercial, 1983, 263.

JANIN (C.): *Droit et économie des contrats*, LGDJ, 2008, 47.

PONSARD (C.): *Aléa et flou*, éditions Dalloz Sirey, 1977.

According to this schema, the act of collecting will be qualified by a potentially economic stochastic agreement. Its legal nature is not a fishing; it is then not subject to the issue of a fishing licence, or to the obligation to unload products in regard to taxes or to customs duty in the case of export of samples. However, two reference samples are identified, one to be deposited in the researching State, the other in a specialised institution of the State of origin of bio-genetic resources or in a gene bank of its choice. The raw products of the collection are non commercial goods which, like museum artefacts, are part of the heritage of the country that keeps them or has them kept elsewhere on its behalf. It is their potential applications intended for sale which will be qualified as commercial goods.

These new legal qualifications would eliminate the main sources of disagreement between research institutions or biotechnology companies and the administration of the State of origin of bio-genetic resources. While still allowing a maximum freedom of research, they would provide a necessary framework for it and allow a potential economic development to the benefit of both parties.