



**CONSULTANCY FOR THE CAPACITY NEEDS
ASSESSMENT ON ACCESS & BENEFIT SHARING
AND THE PROTECTION OF TRADITIONAL
KNOWLEDGE, PRACTICES & INNOVATIONS**

FINAL REPORT

APIA, SAMOA

MAY 2003



in association with
KVA CONSULT

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INTRODUCTION

Access to genetic resources, sharing of related benefits and protection of traditional knowledge are issues of national importance for Samoa. Traditional knowledge and genetic resources in plants and animals have enormous cultural, social and potentially economic value. Proper management of these resources will both preserve them and maximise their value for all Samoans.

Products developed from traditional knowledge and genetic resources have great economic value. For example, crops developed and improved by traditional farmers are estimated to be worth US\$15 billion annually to the international seed industry. Worldwide sales of pharmaceutical drugs that are based on traditional medicines are estimated to be worth US\$32 billion each year¹. Commercial development of traditional knowledge and genetic resources is overwhelming conducted by researchers or bioprospectors from developed countries using the resources found in the developing world.

However, traditional knowledge and genetic resources have more than mere economic value. They are an essential component of the *fa'a Samoa* and are practised everyday. There is a strong relationship between traditional knowledge and the *fa'a Samoa*, with each sustaining and supporting the other. Consequently traditional knowledge, whether it concerns healing techniques and medicine, agricultural practices, environmental knowledge, handicrafts or custom and cultural practices, is a living and vital thing. But it needs to be nurtured and protected to keep it alive and to continue as part of the Samoan way of life. Similarly plants and animals (or genetic resources) that relate to that traditional knowledge need to be conserved and protected.

Many of Samoa's plants, animals and related traditional knowledge have already been studied. The resulting discoveries could (and should) benefit Samoa. Anecdotal evidence suggests that up to 40 researchers come to Samoa each year (or approximately one new researcher each 9 days) to study various aspects of Samoa's plants, animals and related traditional knowledge.

Two documented examples of such projects are the use of the mamala plant as a possible HIV-AIDS treatment and the botanical inventory conducted by the National University of Samoa and the Nihon University, Japan. Sharing of the benefits from these projects has been undertaken with varying degrees of success.

Case study 1: the mamala plant and potential HIV-AIDS treatment

In the late 1980s, Dr Paul Cox, an American ethnobotanist, was working in Falealupo to gather a collection of plant samples to test for any chemicals that could be useful medicinally. As part of the project, he interviewed *taulasea* in Falealupo, two of whom used the bark of the mamala plant as a treatment for *fiva samasama* (hepatitis).

Testing of mamala in the US revealed that it contained prostratin (a previously known substance). Further testing showed that prostratin is effective in treating the HIV virus. Based on this research, the AIDS Research Alliance (ARA) undertook human testing of prostratin as a treatment for HIV-AIDS.

¹ ETC Group – www.etc.org

In 2001, the ARA entered into an agreement with the Government of Samoa to share 20% of any future royalties from medication developed. Under the agreement, the Samoan royalties are to be shared between the Samoan government (12.5%), the village of Falealupo (6.7%) and the families of the two *taulasea* who used *mamala* in their healing practices (0.8%). Additional progress payments were also stipulated: \$US5,000 in a good faith deposit, and payments of \$US10,000, \$US20,000 and \$US40,000 if the human clinical testing reaches specified stages.

Case Study 2: Botanical inventory, NUS and Nihon University

Over the period December 1998 – December 2000, the Samoan-Japanese Cooperative Botanical Inventory Programme was conducted by the National University of Samoa (NUS) and Nihon University, Japan.

The project began as the development of a national herbarium for Samoa by collecting and cataloguing all Samoan plant species. In May-September 1999, Japanese and Samoan researchers collected plant specimens from Upolu. In January 2000, during a second collection in Savaii, the Japanese researchers also sought to interview *taulasea* about the medicinal qualities of plants.

In early 2000, NUS sought to enter an agreement with Nihon University to set limits for the interviewing of *taulasea*, the collection of samples and research outcomes. The negotiation of the agreement was fraught with difficulties. The final benefit sharing agreement relies heavily on Nihon University's goodwill to notify NUS that commercial gains have been made.

It is possible that much information relating to Samoan genetic resources and traditional knowledge has already left the country without Samoa benefiting in any significant way. Any benefit sharing currently relies entirely on the goodwill of the researcher who may seek government and/or village permission and may, for example, liaise with staff at the National University of Samoa or deposit copies of their findings with the University.

Harnessing the value of genetic resources and traditional knowledge could have a real impact on Samoa's social, cultural and economic development. It could result in training opportunities and technology transfer from overseas-based researchers and institutions and could boost local educational infrastructure through cooperative projects. It could also result in short-term and long-term financial benefits in terms of permit fees, financial support for community development programs and shares of future royalties from agricultural or pharmaceutical products.

EXECUTIVE SUMMARY

The purpose of this project is to:

1. assess the current state of the capacity needs holders in Samoa in relation to access to genetic resources, benefit sharing and protection of traditional knowledge;
2. assess relevant existing national policies, administrative procedures and guidelines; and
3. develop an action plan to progress these issues.

Capacity Needs Assessment - Part A

Community and government consultation, through workshops and interviews, was an important element of the capacity needs assessment. Four key themes emerged from the consultations relating to protection of traditional knowledge and access and benefit sharing, as follows:

High value placed on traditional knowledge: Samoans, particularly from village communities, place a high value on traditional knowledge which is inextricably linked with the *fa'a Samoa*. There is a reasonably high level of awareness of the practical context for access and benefit sharing issues including recognition of the cultural, social and economic value of traditional knowledge and genetic resources.

Central role of village governance: When regulating access to genetic resources, benefit sharing and protection of traditional knowledge, village governance and the *fa'a Samoa* must have a central role. The *alii ma faipule* has a vital role in all aspects of the process and a sense of ownership of the issues in villages will be central to the success of any regulatory regime.

Partnership between village and government: An effective access and benefit sharing regime should be characterised by a strong partnership between village and central government in order to regulate access to genetic resources and to protect traditional knowledge. However, there was some divergence in views about the relative roles of village and central government. Village representatives felt that the final decision about granting access should be one for village governance, in consultation with central government. By way of contrast, representatives from central government were of the view that the final decision should lie with central government, in consultation with villages.

Permit system: A permit system is an appropriate model for access and benefit sharing issues and is consistent with existing and familiar practices in areas such as fishing, forestry and sand mining.

The consultations aimed to assess the current state of awareness of access and benefit sharing issues. They also sought to seek views on how best to facilitate access and benefit sharing and the protection of traditional knowledge. Participants provided feedback on a range of issues including: who should make decisions about access to genetic resources; how should such decisions be made; how and what benefits should be shared; monitoring and enforcement; and public awareness issues.

Existing Policies, Procedures and Guidelines - Part B

Various initiatives and experiences in Samoa over the past decade have addressed issues about access and benefit sharing and the protection of traditional knowledge. This section of the report summarises these initiatives and experiences and analyses related regional and international developments. Understanding these domestic, regional and international developments is of critical importance to the development of a national action plan.

At the national government level, there is currently a policy setting conditions for access to Samoa's genetic resources and the sharing of consequent benefits. This policy has been administered by MNRE since 2000. It draws upon draft regulations developed in 1999 to provide a legal framework for access and benefit sharing issues. These draft regulations, however, have not been finalised and promulgated. The overarching policy framework is set by the National Biodiversity Strategy and Action Plan which contains policy statements relating to access and benefit sharing.

There are at least two documented case studies where access and benefit sharing issues have arisen in practice in Samoa. Both of these cases were dealt with on a contractual basis and without the guidance of an overarching legislative framework. The first case is that of the the mamala plant whose medicinal properties were known to two taulasea from Falealupo. The second case study relates to the collection of a botanical inventory by Nihon University and NUS. This latter project provided the impetus for the development of the 1999 draft regulations.

Across the Samoan Government, traditional knowledge and genetic resources are being considered by a broad range of departments. Policy initiatives are being developed that have the potential to operate at cross-purposes. It appears that there is little communication between relevant agencies about these projects and there is no comprehensive policy about traditional knowledge and genetic resources.

The context for this project is set by the Convention on Biological Diversity (CBD) which provides the overarching obligations for protection of traditional knowledge and access and benefit sharing. Guidance for implementation of the CBD is provided by the *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization*. These Guidelines provide a useful starting point for the implementation of Samoa's CBD obligations.

At international and regional levels, there are significant developments relating to access and benefit sharing and protection of traditional knowledge that further underline the cross-cutting nature of these issues. Samoa's consideration of these issues needs to take account of these developments, including the work of the South Pacific Regional Environmental Program, the Secretariat of the Pacific Community, the World Intellectual Property Organisation, the World Trade Organisation's Council on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and the UN Food and Agriculture Organisation

Action Plan - Part C

The purpose of the action plan is to set a strategy to properly manage Samoa's genetic resources and related traditional knowledge. This would integrate and coordinate activities at the national and village level.

The action plan establishes a process to (1) facilitate access to Samoa's genetic resources and associated traditional knowledge, and (2) to require the sharing of any benefits from that access. It incorporates the outcomes of the community consultations and individual interviews while also having regard to features from existing national policies, regional developments and international best practice.

A central element of the action plan is the development of a **national strategy** to set a framework for the practical operation of access and benefit sharing including:

- The scope of the scheme's application;
- The rights, roles and responsibilities of all participants in the process, including government, villages and researchers;
- A detailed procedure for access and benefit sharing from application and decision making through to implementation, monitoring and enforcement;
- Public awareness activities;
- Establishment of a legal framework; and
- Involvement in regional and international developments.

The action plan canvasses the proposed decision making model which encompasses a partnership between village and government to operate in accordance with *fa'a Samoa*. The process would be managed by a government focal point in the Division of Environment and Conservation (DEC) that would facilitate and monitor the operation of the scheme. Researchers would make applications to the DEC focal point. These would then be considered by a National Access and Benefit Sharing Committee that would provide the forum for consultation with key stakeholders in government, villages and NGOs. A consensus decision would then be made through this Committee about the applications for access.

The action plan also identifies links with associated issues particularly in the area of traditional knowledge. The term "traditional knowledge" is used and understood in a broad range of contexts including the environment, agriculture, culture, intellectual property protection, trade and foreign relations. These diverse contexts are reflected in activities across the Samoan public sector, however, there is very little coordination or communication about these projects. A key difficulty has been a lack of one government agency taking the lead in ownership of the issues.

For Samoa to properly manage, preserve and harness the potential for its traditional knowledge, these issues must be better coordinated. The Cabinet Development Committee's agenda should include six-monthly reports about the access and benefit sharing regime and traditional knowledge issues across government.

The action plan also incorporates recommendations about the process of developing the national strategy to ensure that the relevant stakeholders have ownership of the issues and the policy. DEC has a facilitative role in this respect to ensure appropriate stakeholder involvement and ownership of the policy.

Background to this project

The Government of Samoa engaged consultants to assess the capacity needs of people, communities and organisations in relation to access to genetic resources, benefit sharing and protection of traditional knowledge. This capacity needs assessment has been undertaken over the period December 2002 to May 2003. It is an add-on project under the implementation of Samoa's Convention on Biological Diversity obligations, funded by the Global Environment Facility through the UNDP Office, Apia.

Acknowledgements

The Consultants would like to acknowledge the assistance of those involved in this project, particularly the staff of the Division of Environment and Conservation of the Ministry of Natural Resources and Environment (particularly Faumuina SV Pati Liu, Tepa Suaesi, Seiuli Vainuupo Jungblut and Afele Faiilagi) who supported the project. The Biodiversity Steering Committee also reviewed and commented on drafts of this report.

The Consultants would also like to thank all those who participated in interviews and workshops who were so generous with their knowledge, views and time.

Note on terminology

Names of Ministries

During the course of this project, the Government Ministries were realigned and renamed. The new names for ministries have been used throughout the report. Where government functions moved to a different agency, this is noted.

Bioprospectors and researchers

Throughout this report, the terms bioprospector and researcher are used interchangeably. Both refer to people or organisations who are undertaking study in Samoa of Samoa's plant and animal genetic resources for the purposes of research. The plants or animals may be associated with traditional knowledge which points to the useful properties that the bioprospector is interested in. The outcomes of this research may be commercialised by development into an industrial product such as a medicine, chemical compound or process.

Plant and animal genetic material

Throughout this report, we refer to "plant and animal genetic material". This shorthand reference should be read to include genetic material of microbial or other origin containing functional units of heredity, in accordance with the definitions in Article 2 of the Convention on Biological Diversity.

PART A: REPORT ON CAPACITY NEEDS ASSESSMENT ACTIVITIES

The capacity needs assessment involved community and government consultation through workshops and interviews. Part A of this report documents and analyses the findings of those consultations and describes the methodology used.

COMMUNITY CONSULTATION WORKSHOPS

Three half-day workshops were held in Savaii (one community workshop) and in Upolu (one community workshop and one government/business/NGO workshop). Individual consultations were held with key stakeholders to follow up issues that emerged during the workshops or to seek those stakeholders' views if they were unable to attend the workshops.

Workshop participants completed questionnaires and discussed questions in focus groups. Focus group results were reported to the group as a whole with further discussion ensuing. A summary of the results of these activities is provided below.

Results of questionnaire on prior knowledge

Workshop participants completed a questionnaire to assess their understanding of traditional knowledge and access and benefit sharing issues. The questionnaire was couched in terms of "traditional knowledge" to provide a more easily accessible context within which to consider the issues of access and benefit sharing. A summary of the questionnaire responses is provided below:

Issues	Views
What does "traditional knowledge" mean to you?	<ul style="list-style-type: none"> • Knowledge of Samoan custom and traditional ways of managing affairs of village, family and church • Knowledge of the environment, uses of plants, management of plantations and protection of the environment from disease and destruction • Knowledge of traditional medicine such as <i>foufou</i> - people need to be knowledgeable of this practice • Using traditional materials to make artefacts
How can traditional knowledge be protected?	<ul style="list-style-type: none"> • Traditional mechanisms such as the power of the <i>matai</i> and <i>faipule</i> law • Stop people from taking plants and animals out of Samoa
How can Samoa benefit from our traditional knowledge?	<p>Conservation of the environment</p> <ul style="list-style-type: none"> • use traditional farming techniques without pesticides • care for and preserve the environment and culture <p>Interaction with external parties</p> <ul style="list-style-type: none"> • market Samoa's traditional knowledge to the outside world • give plants to outsiders to do research

<p>What should we do when researchers want to study our plants and animals?</p>	<p>Laws and permit process</p> <ul style="list-style-type: none"> • require researchers to have a permit – no free visits • committee process between government and villages; to include validation of researcher’s identity • researcher should present to the village the purpose and benefits of the research <p>Monitoring</p> <ul style="list-style-type: none"> • <i>Pulenuu</i> should be present during research • need to check that researchers are keeping within scope of permit • villages should contact the authorities about an illegal practices
<p>How should Samoa benefit when other people use our unique plants and animals?</p>	<ul style="list-style-type: none"> • ensure an agreement is signed before research starts • put in place government guidelines and policies about research process and benefit sharing, including % shares of financial benefits • all parties should be consulted before an agreement is signed • conditions need to be strict but can be applied flexibly

Table 1: Summary of views expressed in questionnaire

Framework for the discussions

In order to provide a practical context for discussion of the issues, the consultants utilised a flow chart describing an example of how access and benefit sharing occurs in practice. An A4 version of the flowchart (English translation) is at [Appendix 1](#). The flowchart reflects, at a broad level, the process that is currently embodied in MNRE’s policy and in the Draft Environment (Access for Bio-Prospecting) Regulations 1999. It also reflects the implementation model that has been developed internationally through the Secretariat for the Convention on Biological Diversity, as embodied in international best-practice documents such as the *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization* (see further below at Part B).

The flow chart is based on a permission system and separates the issues of access and benefit sharing. It makes the following assumptions:

- the process of access and benefit sharing is governed by permission provided by the relevant authorities (although this is not necessarily in the form of a government permit);
- researchers will enter into discussions and agreements about how their research is to be conducted and how benefits will be shared (although there is no mention of who the agreement is made with);
- researchers will take samples of plants and animals out of Samoa; and
- benefits may be both short term and long term.

Access issues

The issue of access to genetic resources and traditional knowledge was considered by the *matai* groups in community consultations, and by a mixed group of participants in the government/NGO consultation. Results of these discussions are summarised in the following table:

Issues	Views
Who should decide whether the researcher can use the plants and animals and their genetic resources?	<p><i>Community workshops:</i></p> <ul style="list-style-type: none"> • <i>Alii ma faipule</i> (village and district) • Government agencies including Ministry of Natural Resources and Environment, Ministry of Agriculture, Internal Affairs, Customs, Culture, Samoa Tourism Authority, Police, Immigration, Quarantine • Villages should engage lawyers to represent them when negotiating agreements with researchers <hr/> <p><i>Government/NGO/business workshops:</i></p> <ul style="list-style-type: none"> • Owner of genetic resource (individual or village that owns land where material is located) • Owner of traditional knowledge (many <i>taulasea</i> have individual knowledge, other practices are widespread) • Government agencies (as identified above) • <i>Alii ma faipule</i> • NGO representing <i>taulasea</i> or common traditional practices
How should that decision be made? How should communities, traditional knowledge holders and government be involved in the decision?	<ul style="list-style-type: none"> • <i>Alii ma faipule</i> should discuss the issues, then consult with <i>taulasea</i>. After reaching a settled view, they will then convey these views to government. • <i>Alii ma faipule</i> need to sign the agreement with the researcher before the research commences. • Government should ensure that the permit system is complied with ie research does not commence without a permit <p>When granting a permit, consideration should be given to:</p> <ul style="list-style-type: none"> • Whether time of research should be limited to take account of vulnerable species, seasonal variation • Ensuring documents are effective to enable a better financial return and no duplication • The responsible department could have a data base to record information about traditional knowledge;

	<p>researchers could purchase this available data for a fee</p> <p>Departments involved in permits:</p> <ul style="list-style-type: none"> • Environment – to regulate access • Agriculture, Quarantine and Customs – to enforce export at the border
<p>What information is needed from the researcher before we can decide on the access?</p>	<ul style="list-style-type: none"> • Identity of researcher and their research institution or company • Type of research and its purpose • Environmental impact of the research and information about what will be taken away • Duration of project • Site or geographical area of project • Possible benefits – financial, non-financial and willingness to acknowledge source of research
<p>Who should oversee what is happening and make sure that the law and agreement is being complied with?</p>	<ul style="list-style-type: none"> • Village representatives should be present during the research • Village to select a person (from within village – youth or student) who has capacity to learn from Department to undertake this monitoring • Lawyers representing the village should oversee the implementation of the agreement <p>Need for a written agreement:</p> <ul style="list-style-type: none"> • Between researchers and government as representatives of the people • Between government and the people (to distribute benefits) <p>Enforcement of agreement and legal framework through:</p> <ul style="list-style-type: none"> • <i>Alii ma faipule</i> • Environment Department officers • Quarantine and Customs officers at the border <p>Make criminal offences to take samples without a permit - courts and police to enforce</p>
<p>How can we make sure that the community is aware of the scheme?</p>	<ul style="list-style-type: none"> • <i>Pulenuu</i> responsible for making sure that the community is aware of the issues – through a seminar with assistance from government • Public awareness campaign in newspapers, radio and TV <p>Specific awareness raising workshops with <i>faipule</i>, <i>pulenuu</i>, women’s groups, youth groups and churches.</p>

<p>What role could your organisation have in the process of approving access for such projects? (Upolu government consultation only)</p>	<p>Government agencies to inspect and certify:</p> <ul style="list-style-type: none"> • Environment (regulate) • Customs (enforce) • Quarantine (enforce) • Departments need to be aware of all the procedures and processes <p>NUS could have a role in benefit sharing</p> <p>Locals should also be subject to the permit scheme Lands which are used for these projects should be registered Only Samoan citizens should be allowed to operate developments relating to traditional knowledge – keep it in Samoan hands Cost of raw resources should be reviewed to increase the conservation value. For example, in the logging context, the same price is being paid as it was in the 1980s-1990s.</p>
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Table 2: Summary of focus group views on access issues

Benefit sharing issues

The issue of benefit sharing relating to genetic resources and traditional knowledge was considered by the women’s groups in community consultations, and by a mixed group of participants in the government/NGO consultation. Results of these discussions are summarised in the following table:

Issues	Views
<p>What things should be part of the agreements between Samoans and bioprospectors? What sort of benefits should be included in the agreements?</p>	<p>Financial benefits</p> <ul style="list-style-type: none"> • permit system fees • royalties from discoveries • could be set per species <p>Non-financial benefits</p> <ul style="list-style-type: none"> • research personnel • knowledge • community projects (eg school buildings and materials) • capacity building (personnel that will be directly involved eg DEC, Ministry of Agriculture) • conservation of medicinal plants • ownership rights of resource owners • set up of laboratory facilities in Samoa <ul style="list-style-type: none"> • Scope of benefits should be clearly identified. Allow for renegotiation if researcher wants to vary terms of research, needs more time or wants to

	<p>take other samples.</p> <ul style="list-style-type: none"> • Duration of benefits • Take account of when research is transferred to someone else (eg pharmaceutical company). Samoa should still be able to benefit from those later developments
<p>How should the benefits be shared with communities, traditional knowledge holders and other Samoans?</p>	<ul style="list-style-type: none"> • Matai council must be the gateway to research in villages • Governments and communities should agree on percentages for sharing of benefits <p>Overview of process (from government etc workshop):</p> <ul style="list-style-type: none"> • Bioprospectors apply for permit (fee charged) • Permit issued • Liaise with communities (village cultural protocol) • Export permit (fee charged for research-based exports only)
<p>How can we make sure that the community is aware of the scheme?</p>	<ul style="list-style-type: none"> • Communities need assistance to understand and be aware of the background of researchers (especially researchers that are companies) • Awareness of the legal framework will enable communities to make informed decisions <p>Awareness program through:</p> <ul style="list-style-type: none"> • consultation workshops (with communities, government, NGOs and the private sector); • media campaigns (television, newspapers, radio); and • district meetings (with relevant government representatives attending)
<p>How should disputes about the agreements be resolved?</p>	<ul style="list-style-type: none"> • Disputes within the village should be resolved using the <i>fa'a Samoa</i> eg use of <i>matai</i> council • Discussion with government agencies (eg DEC) to enlist help to resolve disputes.
<p>What role could your organisation have in the process of approving access for such projects? (Upolu government consultation only)</p>	<ul style="list-style-type: none"> • Set up a proper permit system involving government, bioprospectors and communities <p>Proposed bioprospecting process:</p> <pre> graph TD A[Project proposal] --> B[Foreign Affairs Department] B <--> C[MNRE] C <--> D[] style D fill:none,stroke:none </pre>

	<p style="text-align: center; border: 1px solid black; display: inline-block; padding: 2px;">Village Communities</p> <p>Set up review committee of government and community representatives</p>
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Table 3: Summary of focus group views on benefit sharing issues

ANALYSIS OF RESULTS

The feedback gathered from the community workshops was characterised by four important themes:

1. High value placed on traditional knowledge:

Samoans, particularly from village communities, place a high value on traditional knowledge. The consultations revealed that there is a symbiotic relationship between traditional knowledge and the *fa'a Samoa*, with each sustaining and supporting the other.

Workshop participants recognised the cultural, social and economic value of traditional knowledge and genetic resources. They demonstrated a reasonably high level of awareness of the practical context for access and benefit sharing issues. This appears to have been influenced by the example of the benefit sharing agreement for mamala and the village of Falealupo. Throughout the workshop discussions, a theme emerged about the need to protect, conserve and utilise traditional knowledge and genetic resources.

2. Central role of village governance:

A strong theme to emerge from the two community consultations with village-based participants was the need for a central role of village governance and the *fa'a Samoa* in all steps of the access and benefit sharing process. Participants unanimously supported the role of the *alii ma faipule* (*matai* council) in making decisions about access to genetic resources held in villages. The *alii ma faipule* should also be the appropriate body to give permission to talk to taulasea and other traditional knowledge holders. It further has a role in monitoring, sharing the benefits and enforcement of research or bioprospecting activities. A high degree of village “ownership” of the process and issues will be critical to the success of any regulatory system.

3. Partnership between village and government:

Participants identified the need to have a strong partnership between village and central government to regulate access to genetic resources and to protect traditional knowledge. While responses varied about the relative roles of village and central government, a clear theme to emerge was the need for partnership.

4. Permit system:

Workshop participants responded to the issues about access and benefit sharing using the model of a government permit system to regulate access. Discussions included reference to existing permit systems for activities such as fishing, forestry and sand mining. These models were applied as a means of regulating access and benefit sharing.

Recommendation 1:

Recognising the real and potential value of traditional knowledge and genetic resources, Government, in partnership with villages, should introduce a system to regulate access to genetic resources and benefit sharing.

Prior knowledge of traditional knowledge and access and benefit sharing – questionnaire results

Participants demonstrated a reasonably high level of awareness of traditional knowledge and access and benefit sharing issues. Responses demonstrated an intuitive understanding of the issues from a strongly grassroots perspective.

A theme of these responses was the importance attached to traditional knowledge and its value to Samoan communities in terms of culture and social and economic development. Traditional knowledge sustains the *fa'a Samoa*, which in turn sustains traditional knowledge. Participants also identified the need for village and government partnerships in order to address access and benefit sharing issues.

Scope of traditional knowledge

Participants identified a broad range of contexts for traditional knowledge that included knowledge about environmental issues. Other identified contexts for traditional knowledge included knowledge about Samoan custom, cultural practices, handicrafts, agricultural knowledge and practices and knowledge of traditional medicines. This knowledge is utilised and practised everyday.

Protection of traditional knowledge

When asked how best to protect traditional knowledge, participants identified the use of traditional mechanisms such as *faipule* law and the power of the *matai*. These results underscore the strong support for the role of village governance in any permit decision-making process. The use of a permit system was also identified as an appropriate mechanism for the regulation of access to genetic resources.

The need for conservation and protection of Samoa's environmental resources was also identified. Some participants expressed the desire to stop people taking plants and animals out of the country. Others, however, expressed a desire to share freely plant resources with "outsiders" for research purposes.

Benefits from traditional knowledge and genetic resources

Participants addressed these questions broadly and identified two main ways that the use of traditional knowledge or genetic resources could benefit Samoa:

- Firstly, traditional knowledge could be used to conserve the environment, particularly knowledge relating to farming techniques, environmental preservation and culture; and
- Secondly, traditional knowledge could be used to market Samoa to the world. This response underscored a degree of awareness about the economic and social development context for traditional knowledge.

Process for access and benefit sharing

Participants identified a need for a permit process, backed by law and government policy, that would regulate access to resources and knowledge. This was couched in terms of “no free visits” and a consultative process between villages and government to approve access.

This process must be undertaken as a partnership between village and central government, having regard to the *fa’a Samoa*. Traditional village governance structures, such as the *alii ma faipule*, have an important role to play in the determination of permit applications. A sense of partnership and ownership is essential to the success of any such scheme.

The permit approval process needs to include provision of information to the village about the purpose and benefits of the research and validation of the researcher’s identity. Participants also identified the need for agreements between researchers and Samoans about the terms of the research, including benefits to be shared. Such agreements should be consistent with conditions set in government policy.

Participants identified the need for monitoring and enforcement arrangements. *Pulenuu* or *matai* should be present during the research (eg collecting samples, interviewing people) to ensure that researchers are keeping with the scope of their permit. If there are any activities that are outside the scope of the permit, or illegal, then villagers should contact the relevant government authorities.

Access issues – workshop discussions

Most issues discussed in the workshops had consistent responses from all participants, with the exception of the issue of making the decision to permit (or deny) access. A strong theme arising from the consultations was a need for a partnership between village governance and central governance in the management of these issues. While there was some difference of views about the respective roles of participants, there was a strong recognition that both village and government representatives need to be involved.

Underlying this discussion was a strong recognition of the value of traditional knowledge and genetic resources to Samoa in a cultural, economic and social sense.

Workshop participants' enthusiasm and application resulted in vigorous discussions, demonstrating the importance they placed on traditional knowledge and access to genetic resources.

Decision-makers in a permit scheme

Participants approached the issue of making decisions about access in the context of a government permit system. This is probably due to their experience with government permits in other areas such as forestry, fishing and sand mining. The issue of who should make the decisions to grant (or deny) a research permit, and how these decisions should be made, elicited varied responses from participants. These different responses reflected the varying perspectives of villages and government and placed different emphases on the relative roles of village governance and central governance.

Participants representing **village communities** strongly supported the role of village governance, with the *alii ma faipule* providing the gateway to the village. Decisions concerning access to village's genetic resources and people's knowledge should be made by the *alii ma faipule* in accordance with Samoan custom and practice. This may involve consultation with relevant groups within the village, but this should be undertaken within the village governance structure.

Village representatives also acknowledged the role of government in the decision-making process about access issues. Key government stakeholders were identified, such as MNRE, Customs and Quarantine. There was also an acknowledgement of the need for government to assist villages to negotiate the terms of access.

However, there was a strong "grassroots" sense that the issues belonging to villages and that village governance structures were central to any decisions made. The role of government was a complementary, supporting role.

Participants representing **government** placed a different emphasis on the roles of village and government. They identified central government as the body responsible for making the decision about access. Such a decision would be made in consultation with villages (and other interests) in line with village protocols. Participants identified the need for the involvement of *alii ma faipule* along with the owners of the particular genetic resources (or the land on which it is found) and the owners of the relevant traditional knowledge. There was recognition of the efficiencies of having a government "focal point" to manage the access decision-making process. Any permit-based scheme should apply to both foreign and Samoan researchers.

Recommendation 2:

- (a) A permit process for access and benefit sharing should utilise a decision-making model that accommodates the role of both village governance and central governance.
- (b) The chosen model should be discussed with both village and central government stakeholders to ensure that both parties approve the model. Care should be taken to ensure that the model does not undermine *matai* authority.

Process of making a decision on access

Participants identified broader issues concerning how decisions should be made under a permit-based scheme.

At the village level, the *alii ma faipule* would consult with relevant people within the village, including *taulasea* who were sought to be interviewed. There was little discussion of the need to consult with individuals who may be growing the relevant plants or animals. However, clear guidelines should be established about how these dealings are to be undertaken.

At the government level, participants acknowledged the range of stakeholders involved. These were identified by all participants and included: Ministry of Natural Resources and Environment; Ministry of Agriculture; Customs; Ministry of Foreign Affairs and Trade; Police; Ministry of Women, Community and Social Development; Samoa Tourism Authority; Ministry of Education, Sports and Culture; and the Ministry of the Prime Minister.

There was little discussion of the actual mechanism to facilitate communication between villages and central government in the decision-making process. However, there was a clear message that both villages and central government have a role in the process.

Recommendation 3:

- (a) A permit process for access and benefit sharing should involve both villages and central government as partners in the decision-making process.
- (b) Clear guidelines should be established (either in policy or legislation) about how consultation with stakeholders, including individuals and government departments, should be undertaken.

Information required for decision on access

Participants identified a range of information that researchers should provide to support an application for an access permit. There was no discernible difference in answers across the groups. Relevant information includes:

- Identity of the researcher and their research institution or company;
- Type of research and its purpose;
- Environmental impact of the research and information about what will be taken away (eg plant samples, size of samples, records of interviews);
- Duration of project;
- Site or geographical area of project; and
- Possible benefits, both financial and non-financial, and a willingness to acknowledge the source of the information as Samoan.

Recommendation 4:

A permit process for access and benefit sharing should require researchers to provide a range of information relating to identity, type and purpose of research, environmental impact, duration, geographical site and possible benefits.

Monitoring and enforcement

Participants identified a need for monitoring and enforcement of permits at both village and government levels. At the village level, village representatives (such as *alii ma faipule* or *pulenuu*) should be present while the research is being undertaken. The village could also select a young person or student from within the village who could be trained by the Ministry to assist with this monitoring.

The relevant government agency should assist with training of individual(s) within the village to assist with monitoring. This person would need to understand a range of issues including the scope of the permit in relation to the research. The village should also be able to engage lawyers to oversee the implementation of the project. At the government level, there would be an enforcement role for MNRE and Quarantine officers. Enforcement would include compliance with conditions such as maximum permitted sample size for plant material and extracts.

Participants also acknowledged that a permit would be accompanied by an agreement dealing with the conduct of the research and benefit sharing. This agreement would also require monitoring and enforcement.

Finally, participants also recognised the need for some criminal offences in relation to conduct that breached the permits and other enforcement mechanisms for breach of a relevant agreement.

Recommendation 5:

- (a) A permit process for access and benefit sharing should include monitoring and enforcement provisions to be undertaken at both the village and government levels. The progress of research projects should be measured against conditions in the permit and any agreement concerning the conduct of the research and benefit sharing.
- (b) Village-level monitoring should be undertaken by the *alii ma faipule*, or *pulenuu*, and other representatives (such as a young person, student or lawyer).
- (c) Government has a role in assisting village-level monitoring and enforcement through provision of training and technical support.
- (d) Government enforcement should include criminal offences for breaches of permits and means to enforce benefit sharing agreements.

Public awareness

Participants identified the need for public awareness of an access and benefit sharing regime to ensure that all stakeholders in villages and government are aware of the relevant legal framework and policies. This could take the form of seminars or workshops with specific stakeholders and a media campaign (radio, television, newspaper). Seminars or workshops should be undertaken in the village by *pulenuu* (with government assistance) and in Apia by government for other government departments, NGOs and other stakeholders.

Participants also identified the need for bioprospectors or researchers (“users of the scheme”) to be made aware of the scheme on their arrival in the Samoa. This could be facilitated by appropriate questions on immigration forms asking the purpose of the visit to Samoa. Brochures or information kits could then be given to travellers who indicate that the purpose of their visit is research or study.

Recommendation 6:

- (a) An access and benefit sharing regime must be accompanied by a public awareness campaign (including an information kit) to ensure that all village and government stakeholders and users of the scheme are aware of the relevant legal framework and policies.
- (b) The public awareness campaign should identify appropriate strategies to maximise coverage of the issues through various media (such as television, radio, seminars and brochures) and to target understanding in government, village communities and amongst users of the regime.

Benefit sharing issues - workshop discussions

A strong theme of the benefit sharing discussion was the need for a partnership between villages and government, as was the case with the discussion of access issues. In the context of benefit sharing, this partnership would see both village and central government being involved in decisions about how benefits are to be shared. The partnership would also govern the operation of mechanisms for the sharing of benefits.

Participants again identified the need for a strong role for traditional Samoan governance structures in the sharing of benefits, through the *alii ma faipule*. An underlying theme of the discussion was the mutually sustaining relationship between traditional knowledge and the *fa'a Samoa*. Indeed, the preservation of traditional knowledge would have the tacit benefit of preserving and promoting the *fa'a Samoa*.

Scope of benefits

Participants recognised that benefits can take financial and non-financial forms. They acknowledged that there can be difficulties with the distribution of financial benefits and that non-financial benefits may help overcome this problem. Participants identified a broad range of benefits that could be considered in benefit sharing arrangements including:

Financial benefits:

- Permit system fees; and
- Royalties from discoveries.

Non-financial benefits:

- Community projects (eg school buildings, conservation projects);
- Capacity building of personnel that could be directly involved in the research (eg from DEC, Ministry of Agriculture, NUS);
- Set up of laboratory facilities in Samoa;
- Conservation of medicinal plants; and
- Recognition of ownership rights of resource owners.

Benefits should be clearly identified in agreements between researchers and Samoans. This should include the range of type of benefits, duration of benefits and an opportunity to vary the scope of benefits should the scope of the research change.

Concerns were raised that any benefit sharing requirements should also extend to third parties who may receive or buy the outcomes of research in Samoa. For example, a researcher may sell their results to a pharmaceutical company for further development. Samoans should be able to benefit from such uses.

Recommendation 7:

- (a) Benefit sharing arrangements should contemplate both financial and non-financial benefits.
- (b) The permit system should be accompanied by agreements between researchers and Samoans with detailed provisions about the benefits to be shared.
- (c) Benefit sharing arrangements should extend to third parties who may acquire the results of the research. These third parties should be required to honour benefit undertakings with Samoa, as a condition of receiving the research results.

Process of benefit sharing

As with access issues, there was a strong finding that the *alii ma faipule* should be the gateway to villages for the negotiation of benefit sharing. Participants also identified that government and village communities should agree on the sharing of financial benefits, particularly where those benefits are shared between government and villages.

While there was no discussion of the detailed steps in the process of benefit sharing, participants in all workshops identified that government and communities have roles as partners in the benefit sharing process. Participants also identified that there should be a review committee of government and community representatives.

Recommendation 8:

- (a) Villages and central government should work together as partners in the benefit sharing process, both when making decisions about benefits and in the actual sharing of benefits.
- (b) Discussion of benefit sharing at the village level should be undertaken in accordance with *fa'a Samoa*.
- (c) The monitoring and review of benefit sharing arrangements should be conducted by village and government representatives.
- (d) Communication between village and government on these issues should be facilitated through a committee process.

Public awareness

As with the discussion about access issues, participants identified the need for public awareness of an access and benefit sharing regime to ensure that all stakeholders in villages and government are aware of the relevant legal framework and policies. They made similar comments about the need for seminars and a media campaign for villages and for government departments, NGOs and other stakeholders.

Disputes about agreements

Participants recognised that there may be disputes about the access and benefit sharing process at both the village and central government level. Disputes should be dealt with either by the faipule or through appropriate government agencies. There may be different contexts for disputes (eg at the domestic collection stage, or at an international research stage), and the resolution should be appropriate with the central government in particular acting on disputes in the international context.

Recommendation 9:

Disputes about the access and benefit sharing process should be dealt with using appropriate dispute resolution mechanisms. This may be at a central government or village level, whichever is appropriate in the context.

INDIVIDUAL CONSULTATIONS

The consultants conducted some individual consultations with government and inter-governmental organisations. The outcomes of these consultations is detailed in Part B: Report on National Policies, Administrative Procedures and Guidelines. A list of interviewees is contained in Appendix 2.

RADIO TALK BACK

Officers from the Division of Environment and Conservation conducted a series of five radio talk back sessions on 2AP and 98FM over the period 27 February - 13 March 2003. In total, approximately 16 callers participated in the talk back programme.

Each session posed the questions:

- Who makes the decision to allow bioprospectors into the local communities?
- How should benefits arising out of bioprospecting activities be shared?

Panellists discussing the issues and answering questions included:

- Mr Tauiliili Farani – Village Mayor Lotopa/Pesega;
- Mr Tapa M Suaesi – Project Coordinator, MNRE;
- Mr Suega Galumalemana –Department of Women’s Affairs;
- Mr Manufoa Lameko Tesimale – Capacity Building Officer, MNRE;
- Mr Faasoa Nimarota Ieti – METI; and
- Mr Asipa Pati – Science Department, National University of Samoa.

Callers raised a number of issues including strong support for policies and regulations for access and benefit sharing and the need to train Samoan scientists so that they may be involved in benefits of bioprospecting. Concerns were also raised about export of Samoan native plants such as nonu and ava.

One caller, who was a taulasea, recounted an incident when she was interviewed by a New Zealand scientist in 1985 about her treatment for children using coconut juices. She expressed her concern about past practices when researchers from outside Samoa have been given free rein to find out about the taulaseas’ practices. Another caller cautioned about making access to taulasea a business activity as the taulasea’s trade is an inheritance that is sacred and can not be sold and bought like property.

Most callers to the radio talk back programmes were from Apia, however, some callers participated from Savaii and one from American Samoa.

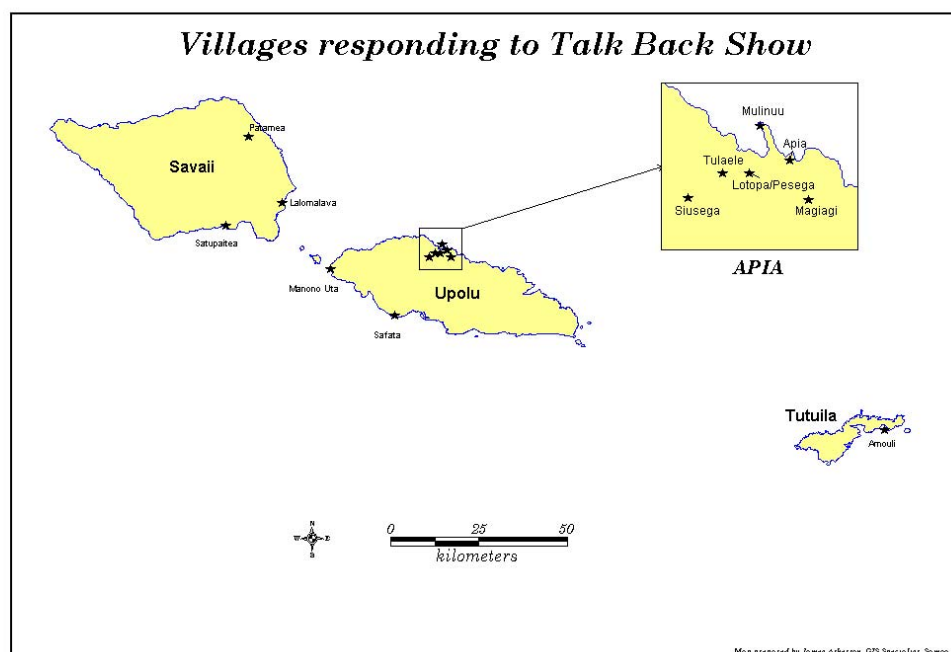


Figure 1: Map of villages responding to radio talk back programmes

METHODOLOGY

The capacity needs assessment activities were conducted primarily through:

- Community consultation workshops; and
- Individual stakeholder interviews.

MNRE staff also conducted radio talk back programmes.

Consultation workshops

The workshops utilised various methods including presentation and distribution of information, discussion of issues in focus groups and discussions and conclusions within the group as a whole. The workshops were structured as follows:

- **Introduction** – formal introduction followed by presentations by departmental staff and consultants. This included use of a visual flow chart to describe the process of access and benefit sharing (English language text version at [Appendix 1](#)).
- **Questionnaires** – participants completed questionnaires to gauge their level of prior knowledge about traditional knowledge and access and benefit sharing issues.
- **Focus groups** - participants formed focus groups to discuss issues relating to either access or benefit sharing. For the community workshops, the groups were divided on mainly gender lines: (male) *matais* considered access issues

and women's representatives considered benefit sharing issues. In the government/NGO workshop, the focus groups were not specifically divided on these lines. All focus group discussions were facilitated by the consultants and Division of Environment and Conservation (DEC) staff.

- **Presentation of focus group findings** – representatives from each focus group presented their findings to the group as a whole. Oral presentations were supported by written findings on charts.
- **Discussion and conclusions** – further discussion of the issues in the group as a whole. The consultants then summarised the findings from the focus groups, and the questionnaires before closing the workshops.

Language

Both community workshops were conducted in Samoan. The government/NGO workshop was conducted in both Samoan and English.

Written material provided to participants

A range of written material was provided to participants to explain further the issues under consideration and to stimulate discussion. This included:

- Questionnaires about prior knowledge ([Appendix 3](#));
- A summary of the issues (this information also accompanied the workshop invitations) ([Appendix 4](#)); and
- Questions for focus groups based either on access issues or benefit sharing issues ([Appendix 5](#)).

Facilitators were also given supplementary questions for consideration in the focus groups ([Appendix 6](#)). The materials were provided in Samoan for the community workshops and in both Samoan and English for the government/NGO workshop.

Media campaign

In conjunction with the workshops, DEC conducted a media campaign which included:

- Prime time television advertisements on Televisi Samoa in English and Samoan about the workshops during the 2 ½ weeks the workshops were held (February – early March 2003);
- A series of newspaper features about biodiversity issues in English and Samoan including a 2 page feature about access and benefit sharing and traditional knowledge in the Samoa Observer on Sunday 9 March 2003; and
- A series of radio talkback programmes held on 2AP and 98FM inviting people to comment on access and benefit sharing and traditional knowledge issues (27 February - 13 March 2003)

The consultants provided DEC with a press release ([Appendix 7](#)) about the start of the project and written material for use in the newspaper features ([Appendix 8](#)).

Participant profiles

Invitations to the workshops were coordinated by DEC. For the community workshops, invitations were targeted at Savaii villages with conservation projects and Upolu villages in the Safata and Aliepata Marine Protected Areas. Villages were invited to send three people representing *matai*, women and youth groups. DEC also sent invitations to government departments and NGOs and businesses in Salelologa and Apia. In addition, television advertisements (see above) offered a general invitation to the community.

A total of 106 participants attended the three workshops with the greatest attendance at the Savaii workshop. The high level of participation at the Savaii workshop was particularly notable given that there was a Ministry of Health workshop being held at the same time. The high attendance from Savaii indicates the significant degree of interest in the issues. While the Upolu workshops were not as well attended, at least four participants attended both Upolu workshops, indicating their interest in the subject matter.

Representation of village groups: Participants at the community consultations were *Pulenuu*, *Matai* or members of the *Komiti Tumama*. Some participants indicated they were members of their village's *Komiti Siosiomaga*.

Gender: Overall, the gender representation at the workshops was approximately one-third women (36%) and two-thirds men (68%). Further gender analysis is provided in the table below:

Workshop	Men	Men (as a % of whole)	Women	Women (as a % of whole)	Total each workshop
Salelologa, 12 February (community)	34	64%	19	36%	53
Apia, 19 February (community)	19	68%	9	32%	28
Apia, 25 February (government, business and NGOs)	15	60%	10	40%	25
Total All Workshops	68	64%	38	36%	106

Table 4: Gender analysis - workshops

Age: While the invitations were expressly extended to youth representatives from each village, none attended. Most village participants were within the 40+ age range. Some younger people (ie 20 to 30 years) attended the government/NGO workshop.

Geographical distribution: A wide range of villages were represented at the Savaii and Upolu workshops.

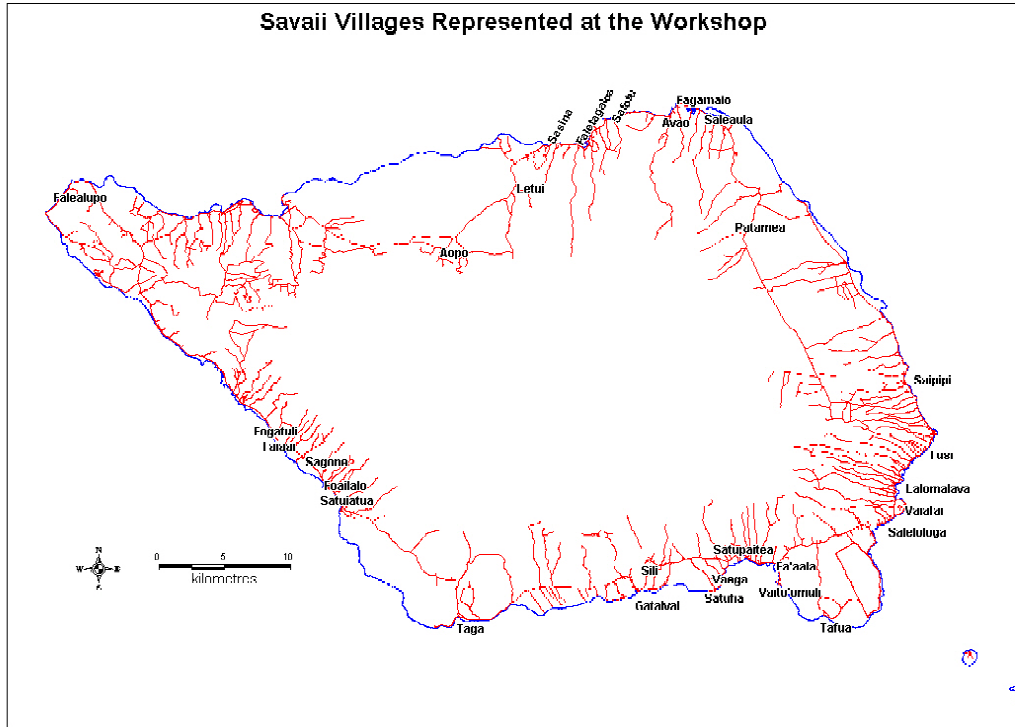


Figure 3: Savaii villages represented at workshops

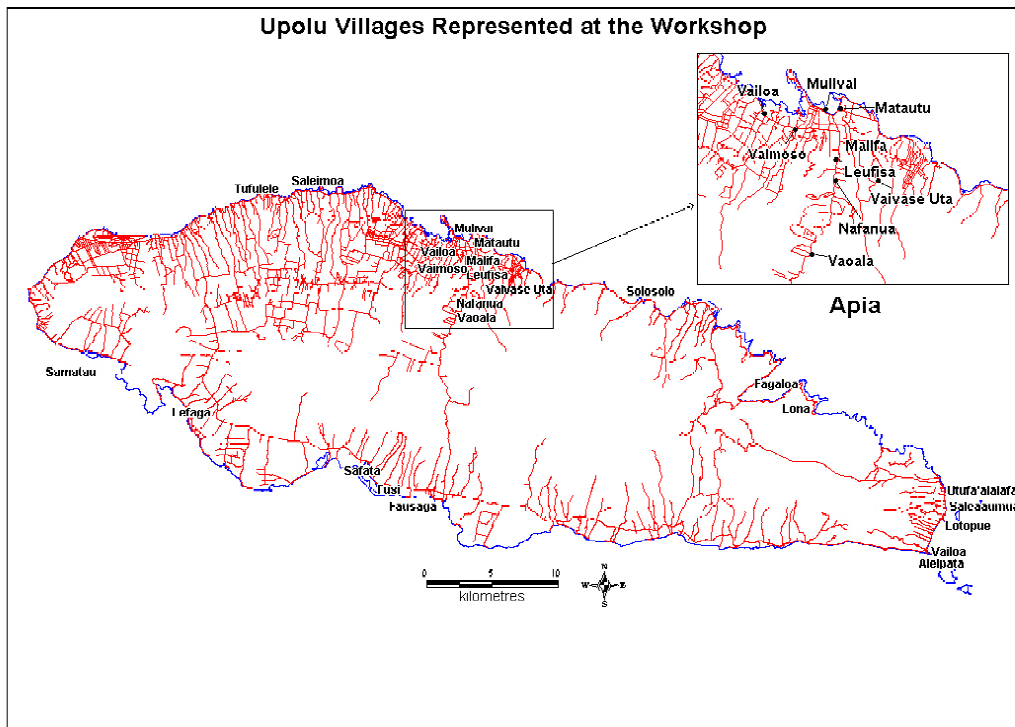


Figure 2: Upolu villages represented at workshops

A range of government departments and NGOs were represented at the second Upolu workshop. Unfortunately, no private sector businesses were represented. Attendees were:

- Samoa Tourism Authority;
- Justice Department (now Ministry of Commerce, Industry and Labour);
- Attorney General's Office (2);
- Women in Business Development Inc (2);
- Customs Department;
- Ministry of Agriculture (2);
- Ministry of Foreign Affairs;
- Statistics Department (2) (now Ministry of Finance);
- Ministry of Youth, Sports and Culture (now Ministry of Education, Sports and Culture);
- Ministry of Women's Affairs (2) (now Ministry of Women, Community and Social Development);
- O le Siosiomaga Society; and
- 9 community representatives.

Additionally, MNRE staff members attended all workshops as facilitators.

Stakeholder interviews

In addition to the consultation workshops, the consultants conducted individual interviews with key stakeholders. A list of these further interviews is contained at [Appendix 8](#).

CONCLUSIONS

Samoans place a high value on access and benefit sharing issues and protection of traditional knowledge. Participants' strong intuitive understanding of the concepts of traditional knowledge, and the importance placed on the issues, demonstrates that there is a powerful grassroots sense of ownership. Traditional knowledge in particular is inextricably woven with the *fa'a Samoa*. Any access and benefit sharing scheme needs to incorporate the *fa'a Samoa* and build upon that sense of ownership in order to be successful.

The consultation outcomes also demonstrated that any scheme to regulate access and benefit sharing must be undertaken as a partnership between central government and villages. Both central government and villages need to be part of the process for making decisions about access and benefit sharing. It is essential to the success of any scheme that it incorporates village governance structures such as the *alii ma faipule* as well as accommodating the interests of central government stakeholders. An issue that remains to be resolved is how to accommodate the competing views about the respective roles of village governance and central governance in the access and benefit sharing process. However, there is consensus about the acceptability of a permit-based regime.

PART B: REPORT ON NATIONAL POLICIES, ADMINISTRATIVE PROCEDURES AND GUIDELINES

CURRENT ACCESS AND BENEFIT SHARING ISSUES IN SAMOA

Conditions for Access to and Benefit Sharing of Samoa's Biodiversity Resources

Samoa currently has a process in place to approve access and benefit sharing relating to biodiversity resources. This process has been administered by the Division of Environment and Conservation (DEC), Ministry of Natural Resources and Environment (MNRE), (formerly Department of Lands Surveys and Environment - DLSE) since March 2000.

The process is outlined in a departmental policy document: *Conditions for Access to and Benefit Sharing of Samoa's Biodiversity Resources* (see [Appendix 9](#)). While the Conditions are based on the Draft Environment (Access for Bio-Propecting) Regulations 1999 (the Draft Regulations), they use a much simpler model. The Conditions were put in place as an interim measure until the Draft Regulations were progressed.

The Conditions establish an approval process for researchers seeking to “investigate biodiversity resources”. DEC administers the entire process including:

- collecting the application and sampling fees;
- processing the approval (contained in a seven page application form - see [Appendix 10](#));
- seeking consent from relevant land owners; and
- monitoring the collection of specimens.

Current Access and Benefit Sharing Process

The current process in the MNRE policy can be conceptualised as follows:

Bioprospector to complete application form \$500 consent fee application Determination to take maximum 20 working days
--



DEC to obtain consent from relevant land owners Once consent granted, valid for 12 months
--



Sampling accompanied by fee per sample of \$300 Fees go to owners of land where samples collected Sample size limited - 100g plant material, 1 g extract Only dried samples can be exported
--



DEC monitors and keeps register of all samples
Researcher to provide status report every 6 months



Benefit sharing must be on mutually agreed terms and
must consider any traditional knowledge used in project
Minimum royalty share of 2%

In order to export plant and animal specimens collected under the Conditions, researchers must also seek an export permit from the Ministry of Agriculture. This process is being amended by the draft Biosecurity Bill and draft Export Control Bill.

To date, DEC has received four applications under this scheme. All applications originated from foreign tertiary or research institutions and were directed to MNRE either through a local institution (eg NUS) or by direct contact with MNRE.

<i>Application stage:</i>	<i>Number</i>
Received	4
Approved	3
Rejected	0
Lapsed	1

Table 5: Summary of applications under current scheme

All applicants completed the standard form and paid application fees. Approval was granted through compliance with the standard form's requirements. Only one project included a benefit sharing agreement with mutually agreed terms (the NUS/Nihon University botanical inventory). There are no progress or terminal reports on the conduct of each project.

Case 1: Botanical Inventory	
<i>Applicant</i>	National University of Samoa and Nihon University, Japan
<i>Project Description</i>	Collection of plant samples for botanical inventory and export of some samples to Japan
<i>Approval Stages</i>	Application filed 1999 Benefit sharing agreement signed February 2000 Standard form completed and fee paid No monitoring report
Case 2: Mangrove leave samples	
<i>Applicant</i>	Orlo Colin Steele American Samoan Community College Land Grant Forestry Department and US Department of Agriculture McIntire-Stennis Forest Research Grant

<i>Project Description</i>	Collection and transfer of mangrove leaves as part of study of “The ecological and cultural relationship of mangroves in the South West Pacific”
<i>Approval Stages</i>	Application filed 11 January 2001; approved 19 January 2001. Standard form completed and fee paid No benefit sharing agreement entered into No monitoring report
Case 3: Breadfruit cultivars	
<i>Applicant</i>	Dr Diane Ragone and Dr Namulaulu Gaugau Tavana, Hawaii National Tropical Botanical Garden
<i>Project Description</i>	Collection and transfer of breadfruit cultivars for research purposes
<i>Approval Stages</i>	Applications filed September 2001 and August 2002 Approved 27 August 2002 Standard form completed and fee paid No benefit sharing agreement entered into No monitoring report
Case 4: Long-tailed cuckoo blood samples	
<i>Applicant</i>	Mark Bellingham Massey University, New Zealand
<i>Project Description</i>	Collection and transfer of blood specimens of the migratory long-tailed cuckoo for research purposes
<i>Approval Stages</i>	Application lapsed as no specimens present in Samoa

Table 6: Detailed description of applications under current scheme

Analysis

Legal status: The legal status and enforceability of the Conditions is unclear as they take the form of a minute signed by the Director and they are not in the form of regulations or an executive order signed by the Minister. Given the uncertain legal status of these Conditions, there may be a question about the authority for the collection of fees that have already been levied under the policy.

Decision making and consultation about access: It is not clear who gives the relevant approval under the scheme, whether it is the Minister, Director of the Ministry or another official. The Conditions provide that the relevant land owners need to consent to the access. It is unclear how this consent is obtained and whether it is conducted through the *Pulenuu*, the *alii ma faipule* and/or individuals.

Further, the Conditions do not specify how this consent affects the decision to grant or refuse the permit. For example, do the land owners have the power of veto over the decision? The Conditions do not contemplate consultation with relevant stakeholders such as other Government departments, the Biodiversity Steering Committee or NGOs and the community.

Time frames and specifications in permits: The Conditions do provide clear guidelines about the timeframe for making a decision, which must be made within 20 working days. This provides an important degree of certainty about the length of the initial decision making process. Further certainty is provided by restrictions on sample sizes (100 grams of plant material and 1 gram of extract) and limits on export of materials. There is no specification for sample size limits for animal or microbial genetic resources. Permits are valid for 12 months only. However, there are no further conditions for permits such as limits on the geographical location of research and changes to project scope.

Benefit sharing: The Conditions provide that the owners of the land where samples are taken will receive fees of \$300 per sample (in unspecified currency). Other benefit sharing provisions are less certain and are limited to an acknowledgement of the need for benefit sharing and a minimum royalty share of 2%. There is no provision for shorter-term and non-financial benefits such as involvement of Samoan personnel and depositing of research findings in Samoa.

Monitoring and enforcement: While DEC staff monitor the conduct of projects, there is no provision for enforcement of the scheme if bioprospectors undertake unauthorised research.

Public awareness: The Conditions and application forms are not actively publicised, nor easily accessible for overseas applicants, for example, they are not available on the internet. Compliance with the Conditions relies on the goodwill of applicants who make enquiries about relevant approval processes. The National University of Samoa often refers applicants to DEC after applicants have made an initial approach to the University.

Disincentive effect: Anecdotal evidence reported in the Samoa Observer (28 February 2002) suggests that some foreign researchers undertaking research of negligible commercial value have had difficulties with the current access and benefit sharing regime. As a result, these researchers moved their projects to jurisdictions with simpler and more certain “bioprospecting” regimes (such as Fiji). Consequently, Samoa may have missed out on any direct and indirect financial benefits and technical transfer opportunities.

Recommendation 10:

The *Conditions for Access to and Benefit Sharing of Samoa’s Biodiversity Resources* should be reviewed in light of the outcomes of this project.

Draft Environment (Access for Bio-Propecting) Regulations 1999

The draft Environment (Access for Bio-Propecting) Regulations 1999 were drafted by a consultant in 1999, with input from the Division of Environment and Conservation (DEC) and some public consultation. The Draft Regulations were developed in the context of the Government's involvement with the NUS/Nihon University botanical inventory project (see further below). However, they have not been finalised or promulgated by Government.

In May 1999, the Attorney-General's Office considered the Draft Regulations and provided the then Department of Lands, Surveys and Environment (DLSE) with comments and amendments. It appears that finalisation of the Draft Regulations was then delayed pending review of the *Lands, Surveys and Environment Act 1989*.

The Draft Regulations provide an access and benefit sharing process including:

- a process for consideration of permit applications, including a consultation mechanism, with the final decision made by the Minister of Lands, Surveys and Environment;
- requirement for agreements with resource owners and Government about the conduct of the research and benefit sharing;
- requirement to share the benefits, including any profits, that may flow from discoveries;
- export requirements for specimens; and
- criminal offences for non-compliance with the regulations.

The process in the Draft Regulations can be conceptualised as follows:

Applicant submits **application** form and fee to DEC



Consultation: DEC establishes consultative process with government; this may include consultation with NGOs
Publicise application on radio and in newspapers for public submissions
DEC prepares report for Minister in light of consultations and any submissions



Agreements – 2 step process:
Applicant must reach **agreement with the resource owners** about access rights, collection and removal of samples and ownership of intellectual property rights.
Applicant must also reach **agreement with DEC** about: regular reports; notification of intended intellectual property rights; and sharing of 6% of any revenues collected, to be shared with Government of Samoa and resource owners.



Permit: Minister may issue a permit
Can include conditions such as technology transfer, training and employment
Must include information about proposed activities, potential environmental or health impacts, environmental monitoring plans and storage and transportation of samples.
Permit valid for 1 year; can be extended for 1 additional year.



Enforcement: DLSE officers empowered to enforce scheme if permits conditions are breached or an offence is committed.



Export: applicant must apply for an export permit
Director of Lands, Surveys and Environment may grant permit
DEC may inspect specimens before export

Analysis

Consultation: The Draft Regulations require DLSE (now Ministry of Environment and Natural Resources) to consult with other Government departments and permit DLSE to consult with NGOs. Community consultation is conducted through media advertisements providing stakeholders the opportunity to make submissions. There is no requirement for DLSE to consult with the specific communities where the research is proposed to be conducted. Further, there is no detail about appropriate consultation mechanisms with government stakeholders.

Prior informed consent: The onus is on the applicant to ensure that the relevant communities have given their prior informed consent to the research. The applicant does not need to demonstrate that prior informed consent has been obtained as a pre-condition to the grant of a permit.

Agreements: The scheme requires two agreements to be entered into. The applicant must reach an agreement with the resource owners about access rights, collection and removal of samples and ownership of intellectual property rights. The applicant must reach a further agreement with government about reporting requirements, notification of potential intellectual property rights and establishment of a minimum 6% royalty payment to be paid to government and resource owners. These agreements overlap in a number of respects and potentially create inefficiencies. Further, resource owners may face difficulties in obtaining legal advice and monitoring the arrangements given their complex and overlapping nature.

Benefit sharing: The scheme specifically contemplates financial benefits flowing to resource owners and Government. However, it does not establish a mechanism for distribution of such benefits, beyond agreements on the amount of potential royalties to be shared. There is no contemplation of the sharing of non-financial benefits, particularly in the shorter term.

Form of law: As a matter of legislative drafting, it would be appropriate to have a scheme with this degree of newness and importance contained in an Act rather than in regulations. While regulations are easier to make and amend, new law for an issue of this importance is more appropriately contained in a stand-alone Act.

In practice, it is often difficult to locate copies of Samoan regulations as they are subordinate legislation made within each Ministerial portfolio. On the other hand, Acts of the Parliament are much easier to locate and are available from the Legislative Assembly and in the Attorney-General's Office library. Samoan Acts are also becoming more readily available on internet sites such as the Pacific Law Materials site hosted by the University of the South Pacific. This internet collection contains only Acts at this stage and does not include regulations.

Recommendation 11:

- (a) Future legislative provisions dealing with access and benefit sharing should take the form of a stand alone Act, to emphasise the importance of these issues to Samoa and to facilitate access to the legislation.
- (b) Such legislation and related policy should be made available on the internet so that it is readily accessible, particularly for foreign researchers.

National biodiversity policy

Samoa's National Biodiversity Strategy and Action Plan (2001) (NBSAP) is the major policy document governing Samoa's implementation of its commitments under the Convention on Biological Diversity. The NBSAP was developed over a 2 year period (March 1999 – May 2001) and was the subject of extensive consultation.

The NBSAP provides the overarching policy framework for the issues being considered by this project. One of the NBSAP's themes focuses on access and benefit sharing from the use of genetic resources. The NBSAP states that its goal is to ensure that:

“Samoa's genetic resources are accessible for utilisation and benefits derived are equitably shared amongst the stakeholders”.

The NBSAP contains commitments to a number of actions concerning genetic resources and traditional knowledge. These can be summarised as follows:

- Finalise, promulgate, monitor and enforce the draft Bioprospecting Regulations and conduct related public awareness campaigns;
- Review the need for a National Bioprospecting Coordinating Body;
- Develop access and benefit sharing mechanisms for holders of traditional knowledge and owners of resources utilised in bioprospecting;
- Consider the issue of Samoan genetic resources held in *ex situ* collections; and
- Conduct general public awareness campaigns about these issues.

Samoa case studies of access and benefit sharing

Access and benefit sharing issues have arisen in practice in Samoa. In recent years, there have been two documented cases of access and benefit sharing. These concern the medicinal properties of the mamala plant (*Homalanthus nutans*) and the collection of a botanical inventory by Nihon University and the National University of Samoa.

Both of these cases involved negotiations and agreements that were concluded in the absence of a domestic legal framework for access and benefit sharing. The need to enter such agreements, and the consequent sharing of benefits, was heavily dependant on the goodwill of the parties concerned.

CASE STUDY I: THE MAMALA PLANT AND POTENTIAL HIV-AIDS TREATMENT

In the late 1980s, Dr Paul Cox, an American ethnobotanist, was working in Falealupo to gather a collection of plant samples to test for medicinally useful chemicals. As part of the project, he interviewed taulasea, two of whom used the bark of the mamala plant (*Homalanthus nutans*) as a treatment for *fiva samasama* (hepatitis). Importantly, he undertook to share any profits resulting from his work with the two taulasea and the village.

Testing of mamala in the United States revealed that it contained prostratin, a previously known substance. Further testing of prostratin showed its effectiveness in treating the HIV virus. The process of extracting prostratin from mamala and using it for HIV-AIDS treatment was patented by the US Army, the National Institute of Health (US) and Brigham Young University. Later research (outside of the scope of the existing patent) found that prostratin had other useful properties in treating the HIV virus. Based on this research, the National Cancer Institute licensed the AIDS Research Alliance (ARA) to undertake human testing of prostratin as an HIV/AIDS treatment.

In 2001, the ARA entered into an agreement with the Government of Samoa to share 20% of any future royalties from medication developed. This 20% share is well-above the usual industry practice of sharing 2% of future profits. The agreement provided that the Samoan royalties would be shared between the Samoan government (12.5%), the village of Falealupo (6.7%) and the families of the two taulasea who used mamala in their healing practices (0.8%). Additional payments were also stipulated: \$US5,000 in a good faith deposit, and payments of \$US10,000, \$US20,000 and \$US40,000 if the human clinical testing reaches specified stages. This agreement was entirely voluntary. It involved only the ARA but not any of the other bodies that previously patented mamala-based research. Its origins are ethical and moral rather than required by law.

Analysis

While this agreement is in principle beneficial for Samoa, it will take years to play out and may have little real financial benefit. Pharmaceutical testing and approval usually takes 10-12 years at a cost of \$US200-500 million. Royalties are calculated on the *profit only* made from any resulting medication. If the commercial returns do not outweigh the production and testing costs, there will be no profits to be shared with Samoa.

The agreement caused some controversy when it was signed, particularly in relation to the parties named as beneficiaries and the proportion of the amounts shared. It also appears to have resulted in some unrealistic expectations of what can be gained from such arrangements.

CASE STUDY 2: BOTANICAL INVENTORY, NUS AND NIHON UNIVERSITY

Over the period December 1998 – December 2000, the National University of Samoa (NUS) and the Nihon University, Japan, conducted the Samoan-Japanese Cooperative Botanical Inventory Programme.

The project began as the development of a national herbarium for Samoa through the collection and cataloguing of all Samoan plant species. In addition to the plant specimens gathered and indexed for the Samoan collection, samples were also exported to Japan.

In May-September 1999, Japanese and Samoan researchers collected plant specimens from Upolu. In January 2000, when a second collection was planned in Savaii, the Japanese researchers also sought to interview *taulasea* about the medicinal qualities of various plants they used in their healing practices.

In early 2000, the Attorney General's Office drafted an agreement between Nihon University and NUS to set parameters for the collection and use of the samples. The agreement also outlined the cooperative nature of the research, specified training requirements for the benefit of NUS (technology transfer) and incorporated a Code of Conduct for researchers. The process of negotiating the terms of the agreement was fraught with difficulties. However, an agreement was finally reached.

Analysis

The final agreement reflects the outcomes of the negotiations between the parties. It incorporates short-term benefit sharing in the nature of training requirements and cooperation with NUS. However, it has minimal requirements about longer-term benefits relating to discoveries based on the *taulaseas'* knowledge and plant samples. The agreement merely states that a commercial arrangement may be reached at a later stage, giving consideration to the principles of the Convention on Biological Diversity. This benefit sharing arrangement relies heavily on Nihon University's goodwill to advise NUS that commercial gains have been made. The agreement is silent on the issue of the *taulaseas'* prior informed consent to the interviews.

These case studies have had varying degrees of success in addressing issues of access and benefit sharing. To date, none of the parties involved have sought to enforce these agreements and it remains to be seen whether they will deliver the promised benefits for Samoa.

Recommendation 12:

The future development of access and benefit sharing policy should be mindful of both the positive and negative results of the Samoan experience with the mamala plant and the Botanical Inventory.

Government and related stakeholders

As noted in Part A of this report, "traditional knowledge" encompasses a broad range of issues that arise not only in the environmental context, but also in the context of culture, agriculture, fisheries, intellectual property and trade. During the community workshops, participants indicated an intuitive understanding of the breadth of traditional knowledge and the various contexts in which it arises.

Reflecting this breadth, there are diverse stakeholders across Government who have a policy interest in the issues of access to genetic resources and protection of traditional knowledge. Many of these stakeholders are currently undertaking policy development in these areas, however, there is little or no coordination and communication between

agencies. In some instances, agencies' policy directions may be developing at odds with other initiatives. The activities of government stakeholders and their policy responsibilities is summarised below.

Ministry of Natural Resources and Environment (formerly Department of Lands, Surveys and Environment)

The Ministry of Natural Resources and Environment (MNRE) has primary responsibility for the implementation of the Convention on Biological Diversity and its provisions on access to genetic resources and protection of traditional knowledge. The Division of Environment and Conservation (DEC) currently administers the *Conditions for Access to and Benefit Sharing of Samoa's Biodiversity Resources* (as outlined above) and Samoa's National Biodiversity Strategy and Action Plan (NBSAP). DEC undertakes a range of related biodiversity projects under the NBSAP.

Ministry of Agriculture (formerly Ministry of Agriculture, Fisheries, Forestry and Meteorology)

The Ministry of Agriculture is involved in a range of activities relevant to genetic resources and traditional knowledge.

Staff from across the Ministry have been formally involved with some of the World Intellectual Property Organisation's (WIPO) activities concerning genetic resources and traditional knowledge. Ministry staff have participated in meetings of WIPO's Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore. They have also attended WIPO training workshops on traditional knowledge.

Crops Division

The Crops Division undertakes a significant amount of work concerning Samoa's plant genetic resources. It receives enquiries from foreign researchers (either directly or via the University of the South Pacific - USP) about assistance with collection and export of plant samples (eg cultivars) for locally occurring species. Officers of the Crops Division often assist these researchers with identification, collection and preparation of live cultivars for export. These cultivars may be exported for botanical collections or for private use. They vary in size, however, the average is 10 cuttings of approximately 200 grams each. There is currently no Ministerial policy (including fee structure) or legislation that governs these practices.

The Crops Division shares plant genetic materials with the germplasm banks operated by the Secretariat of the Pacific Community (SPC) and USP. Agreements and guidelines are in place that the germplasm banks will not give out the genetic material without the permission of Samoa and other members. The SPC is currently actively developing these guidelines. The Division also has a close relationship with USP, including using its facilities for analysing samples and tissue cultures.

In addition to the regional work undertaken by USP and SPC, Division officers participate in the work of the Food and Agriculture Organisation, including the development of the Plant Genetic Resources Treaty and the work of the WIPO

Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore.

Quarantine Division

The Ministry of Agriculture also has an interest in the export of specimens collected by bioprospectors through its quarantine responsibilities. The Ministry's role is to inspect and certify that export goods meet the conditions required by their destination country. The focus is on pests and disease.

Forestry Division

The Forestry Division is currently participating in a germplasm collection project run by the South Pacific Regional Environmental Programme. The project includes an agreement between 6 Pacific countries to share tree genetic material and data, with the aim of improving tree gene pools.

The Division also gives permission for foreign research projects, particularly research undertaken by masters or doctoral students. The process involves a formal application to the Minister or CEO and is followed by discussion with Ministry staff about the research project, its objectives and methods. Permission is usually granted on the condition that researchers then provide a copy of their final report. The Ministry benefits greatly from the information gathered and shared by these researchers.

Intellectual Property Registry, Ministry of Commerce, Industry & Labour (formerly located in the Justice Department)

The Intellectual Property Registry is responsible for the administration of Samoa's intellectual property regime including copyright, patents, trade marks and industrial designs. The Registry is the contact point for intellectual property issues and staff have ongoing involvement with the WIPO, including the work of the Inter-Governmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore.

The Ministry of Commerce, Industry & Labour administers the *Copyright Act 1998* which provides protection for "expressions of folklore". These provisions apply to a range of traditional knowledge including stories, songs, music, dance and handicrafts. The Copyright Act's definition of "expressions of folklore" specifically refers to:

"group-oriented and tradition-based creations of groups or individuals reflecting the expectation of the community as an adequate expression of its cultural and social identity, its standards and values as transmitted orally, by imitation or by other means"

The Copyright Act protects expressions of folklore from copying, communication or adaptation when they are made for commercial purposes or when they are made outside their traditional context. The copying, communicating etc of expressions of folklore can be legitimately done with permission. This permission may be given by "a competent authority", which could be the *alii ma faipule* of the relevant village.

Culture Section, Ministry of Education, Sports and Culture (formerly Ministry of Youth, Sports and Culture)

The Culture Section has been participating in the work of the Secretariat of the Pacific Community (SPC) relating to traditional knowledge. The SPC has been developing a Draft Model Law for the Protection of Traditional Knowledge and Expressions of Culture and a second Draft Model Law on Access to Genetic Resources and Benefit Sharing.

The Minister for Youth, Sports and Culture, the Secretary and other officials from the Culture Section have attended SPC meetings, including most recently a meeting in November 2002 to finalise the Draft Model Law for the Protection of Traditional Knowledge and Expressions of Culture. It appears that the Model Law will now be submitted to the next Forum Economic Ministers' Meeting for consideration and approval.

The Culture Section has also been collecting and recording Samoa's traditional knowledge in the form of myths and legends. The results of the project to date are contained in a four volume compilation. The Ministry has projects planned to promote the preservation of traditional building methods for *fale*, the art of the *tatau* and work with *taulasea*.

Ministry of the Prime Minister

The Ministry of the Prime Minister has a role in granting entry permit (visas) to foreign researchers wishing to undertake work in Samoa. To date, this has occurred in relation to a range of research and film work.

Application is made to the Ministry, usually through the Secretary, for a visa permitting the researcher to stay in Samoa for periods longer than 30 days. Permissions granted are usually on the condition that the researcher will share the outcome of his or her work with Samoa by, for example, providing a copy of their work. Some researchers contact the Ministry directly while others are referred to the Ministry by the National University of Samoa.

While this system does play a "gatekeeper" role, it does not capture those people who come to Samoa for short visits and who enter the country on the free 30 day visitor's visa.

Ministry of Foreign Affairs and Trade (formerly Department of Trade, Commerce and Industry)

The Ministry of Foreign Affairs and Trade is responsible for Samoa's trade policy, including Samoa's accession to the World Trade Organisation (WTO). As part of this accession, Samoa must implement the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), including its provisions about patenting of genetic resources.

The TRIPS Council, the WTO body responsible for the TRIPS Agreement, is currently considering issues about protection of traditional knowledge and access to

genetic resources. This could result in amendments to the TRIPS Agreement in the current round of trade negotiations. Such amendments will have a significant impact on Samoa once it becomes a WTO member as it will need to ensure that its domestic legal regime is consistent with any provisions about traditional knowledge and genetic resources in the TRIPS Agreement. Staff have also attended training workshops on traditional knowledge conducted by the World Intellectual Property Organisation and WTO.

Biodiversity Steering Committee

The Biodiversity Steering Committee oversees the implementation of Samoa's CBD obligations. It was originally established to guide the formulation of the National Biodiversity Strategy and Action Plan and now monitors add-on projects funded by UNDP and the Global Environment Facility. It is chaired by MNRE and has inter-departmental representation from the Ministry of Agriculture (Divisions of Crops, Forestry, Animal Health, Quarantine and Fisheries), Ministry of Finance, Attorney General's Office, Samoa Water Authority, Ministry of Women, Community and Social Development (formerly Department of Internal Affairs and Department of Women's Affairs), Samoa Visitors Authority and Ministry of Foreign Affairs and Trade. The Committee also includes non-government representation from O le Siosiomaga, METI Environment Trust, Taulasea Samoa, National University of Samoa, National Council of Women, Samoa Umbrella Organisation for NGOs (SUNGO) and Women in Business.

The Committee has overseen the process of this project. This included consideration of the draft report and a presentation to the Committee by the consultants.

National University of Samoa

The National University of Samoa (NUS) receives many approaches from foreign researchers who are interested undertaking research in Samoa and who communicate with the University as their first point of contact. NUS refers these researchers to the Ministry of the Prime Minister for an immigration permit. On occasion, NUS has also checked the *bona fides* of researchers with foreign tertiary institutions to verify their identity. The Institute of Samoan Studies also receives approaches from foreign researchers who wish to study and undertake field work on Samoan issues. These approaches may include requests for assistance with a translator or cultural adviser when undertaking field work in villages.

University of the South Pacific

The Agriculture School of the University of the South Pacific (USP) is located in Apia. It includes undergraduate and postgraduate courses of study as well as research undertaken by regional and international academics. USP operates various germplasm banks in the region and also has a close working relationship with the Ministry of Agriculture which uses USP's technical facilities. It is also a first point of contact for foreign researchers who wish to undertake agriculture-related research in Samoa.

Analysis

Clearly there is a need for greater coordination of the functions of these various organisations to manage any overlapping roles, to decrease duplication of functions and to avoid confusion. While many government agencies are involved in access to genetic resources, and associated traditional knowledge, there is single point in government that has “ownership” of these issues.

With various research permits granted across government, there is a potential for unscrupulous researchers to “forum shop” for the most amenable permit. Greater coordination and streamlining of the various research permit functions will assist in avoiding such situations.

Recommendation 13:

- (a) There should be greater communication and coordination between the various Government departments and other institutions that are undertaking projects and policy development in the areas of traditional knowledge and access to genetic resources.
- (b) These departments and related institutions should be included as stakeholders in future developments of access and benefit sharing issues.

INTERNATIONAL AND REGIONAL CONTEXT FOR ACCESS AND BENEFIT SHARING

The Convention on Biological Diversity

Samoa became a member of the Convention on Biological Diversity (CBD) in 1993. Currently fourteen Pacific island states are party to the CBD: Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

The CBD was one of two international treaties finalised and signed at the Rio Earth Summit in June 1992. It deals with a number of issues relating to biodiversity with three main objectives:

- conservation of biological diversity;
- sustainable use of biological diversity; and
- fair and equitable sharing of the benefits arising out of the use of genetic resources (through access to genetic resources, transfer of relevant technologies and funding).

This project is being conducted as part of Samoa’s implementation of the CBD requirements. It is important to note that future developments in Samoa about access and benefit sharing and protection of traditional knowledge need to be consistent with these requirements.

Access to genetic resources and benefit sharing

Prior to the drafting and promulgation of the CBD, genetic resources were widely considered to be freely available to all, despite their enormous inherent value. The

CBD took a radically different approach, beginning with the presumption that individual countries (or States) have sovereign rights over their genetic resources and can determine access to those resources. However, while States have sovereign rights over their genetic resources, they must facilitate access to those resources for environmentally sound uses. Importantly, the CBD does not specify who *owns* genetic resources, and this difficult issue is left to be determined at a national level. For some communities, custodianship rather than ownership may be a more appropriate starting point.

The CBD (Article 15) contains three key obligations about the terms of access to genetic resources:

- **Prior informed consent:** eg a researcher (“bioprospector”) must obtain the prior approval of the country of origin before obtaining access to genetic resources for study.
- **Mutually agreed terms:** eg that access must be on the basis of terms agreed with entities (eg communities and governments) in the country of origin.
- **Benefit sharing:** a bioprospector must share, in a fair and equitable manner, the benefits arising from the use of those genetic resources. This is to be shared with the country of origin.

One of the key difficulties with these elements of the CBD is determining who are the relevant parties in the country of origin who should provide the consent, agree to the terms and share the benefits. Is it individual communities (eg village level), certain land owners, the broader community, and/or the government?

Traditional knowledge

The CBD provisions dealing with traditional knowledge encourage the protection of traditional knowledge that relates to the conservation and sustainable use of biological diversity. It also permits the broader promotion of traditional knowledge with the approval of the traditional knowledge holders provided there is equitable sharing of the benefits arising from such usage.

Technology transfer

The CBD requires parties to provide and/or facilitate access to technology, and the transfer of such technology that makes use of genetic resources (Article 16). As with many similar provisions in other treaties, these requirements are written in high-level treaty language and the details of their implementation is ambiguous.

These provisions have been the subject of much discussion. Practical implementation options could involve legal or administrative requirements for developing countries to participate in biotechnology research and to have priority access to the results of such research.

Recommendation 14:

Future access and benefit sharing regimes should be consistent with Samoa's obligations under the CBD.

CBD implementation: Bonn Guidelines (2002)

There has been much discussion since the CBD was finalised in 1992 about how to implement some of its more ambiguously worded obligations, particularly in terms of access and benefit sharing. At a regional level, the South Pacific Regional Environmental Program (SPREP) has undertaken a project on implementation of the CBD, in partnership with the Foundation for International Environmental Law and Development (FIELD) and the World-Wide Fund for Nature South Pacific Program (WWF-SPP). The Information Package developed as part of this project provides useful guidance on implementation issues.

At the international level, similar work has been conducted resulting in the development of the *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization* ([Appendix 11](#)). The Guidelines were adopted by the VIth Conference of the Parties to the CBD in April 2002. Their development is a significant step in practical guidance for implementation and they identify many issues similar to those contained in the SPREP Information Package.

The Guidelines are intended as a tool to assist governments to implement the CBD and identify practical steps in the process of developing an access and benefit sharing strategy. They contain guidance for the development and drafting of relevant legislative, administrative or policy measures and agreements for access and benefit sharing (referred to as material transfer agreements). However, the Guidelines are not intended to be “the final word” on CBD implementation and are instead a first step in the ongoing development of implementation guidance. Further, the Guidelines are a voluntary guide only and countries that are members of the CBD are not bound to follow them.

There are a number of important features of the Guidelines that are relevant to Samoa including guidance on how to establish an access and benefit sharing regime, how to obtain prior informed consent, and what should be the content of agreements about access and benefit sharing.

Government management

Focal point: the Guidelines recommend that there should be one national focal point to provide information about the access and benefit sharing process. This information would identify the relevant procedures and stakeholders, both in government and the community.

Role of government: the agency responsible for the national policy on access and benefit sharing should have a range of roles including:

- processing and approving applications for access, and approving subsequent agreements about benefit sharing;
- providing advice on the negotiating process and the requirements under the national policy;
- facilitating the involvement of stakeholders, particularly village communities, in the process;
- monitoring the progress of approved projects and benefit-sharing arrangements; and
- enforcing the access and benefit sharing arrangements where required.

Roles and responsibilities of those involved in process

The Guidelines recognise that the various participants in the access and benefit sharing process should have certain roles and responsibilities. In the case of **national governments**, they should:

- act in a clear, objective and transparent manner;
- ensure that communities can fully represent their interests in the process and be informed of decisions
- ensure that traditional uses of genetic resources can continue;
- report to the international community about access and benefit sharing issues through the CBD (such as the clearing-house mechanism); and
- ensure that all stakeholders take environmental considerations into account;

Users of genetic resources (such as bioprospectors or researchers) should ensure that they:

- seek the prior informed consent of the owners of the genetic resources before they use or take samples of them;
- act respectfully to communities including respecting customs and responding to requests for information;
- keep within the bounds of activities they have been permitted to do and seek further permission if they wish to change the scope of the research;
- when supplying material to third parties, they should be informed of, and possibly bound by, these conditions; and
- ensure the fair and equitable sharing of benefits.

Providers of genetic resources (such as village communities) should:

- only supply genetic resources and/or traditional knowledge when they are entitled to do so; and
- avoid arbitrary restrictions on access to genetic resources.

Participation of stakeholders

The Guidelines emphasise the importance of involving relevant **stakeholders** in both the development of a national policy for access and benefit sharing, and in the actual process of permitting access and putting in place benefit sharing arrangements. To facilitate the involvement of stakeholders, particularly from communities, consultative arrangements should be put in place such as a national consultative committee. Regard should also be had to assisting stakeholders to understand the legal and

scientific context of negotiations, possibly with the assistance of a mediator or negotiator.

Steps in the access and benefit sharing process

The Guidelines have a considerable degree of detail about basic principles for the access and benefit sharing process. They identify the need for a **national access and benefit strategy** which would promote the equitable sharing of benefits and the conservation and sustainable use of biological diversity.

Processes to provide **consent to access** genetic resources should be characterised by legal certainty, clarity and minimum cost. Any restrictions on the access should be transparent and consistent with CBD requirements. A system for providing access (and consent to access) should include timeframes for decisions with a reasonable period of time, specifications of use and procedures and mechanisms to consult stakeholders. Competent authorities (such as government agencies) should grant or provide evidence of that prior informed consent.

The Guidelines recognise that permission may need to be sought from **different levels of government**, including national and local or village government. Importantly, the consent of local communities should be obtained in accordance with their traditional practices and in line with domestic law.

The Guidelines also specify the types of **information** that should be provided when a person is seeking permission for access to genetic resources. This exhaustive list includes such things as: details of the applicant and their institution/company; duration and scope of the research; environmental impact evaluation; identification of local bodies for collaboration; and types of benefits that could arise.

Finally, the process and its various outcomes should be **documented in writing**. If permits are granted by government, these could be recorded (along with unsuccessful applications) in a **national registration system** (such as a database). The procedures for obtaining an access permit should be **transparent and readily accessible**.

Terms of benefit sharing

The Guidelines discuss the fair and equitable sharing of benefits from the use of genetic resources. Such benefit sharing is to be on mutually agreed terms. Guiding principles for benefit sharing include:

- Provide legal certainty and clarity;
- Minimise transaction costs through promoting awareness of the scheme's requirements and developing standard benefit sharing agreements;
- Address the obligations of both users and providers of genetic resources;
- Negotiate written agreements efficiently and within a reasonable period of time;
- Consider ethical issues;
- Ensure the continued customary uses of genetic resources; and
- Consider possible intellectual property right issues.

The Guidelines also provide a comprehensive list of the **types of terms** that should be in such agreements, including various monetary and non-monetary benefits. Such agreements should also contain provisions about the **conditions, mechanisms and timing** for distribution of benefits. They should also stipulate the expected timeframe for the receipt of benefits, such as short, medium or long-term.

Distribution and mechanisms for benefit sharing

The Guidelines provide that identified benefits should be shared **fairly and equitably** with all those **stakeholders** who have contributed to the access process, whether in terms of resource management, scientific or commercial skills. These stakeholders may include local communities, government, academic institutions and other NGOs. Benefits should be used in a way that promotes conservation and sustainable use of biodiversity. The mechanisms for sharing the benefits should be flexible and appropriate to the local environment.

Accountability, monitoring and enforcement

To ensure the effectiveness of any access and benefit sharing process, it is important to have measures to promote and facilitate accountability, monitoring and enforcement. The Guidelines recommend the use of reporting and disclosure requirements to promote accountability for all parties involved in the process. Monitoring of the access permits and benefit sharing agreements can include examination of the research's compliance with the permit. Monitoring can also include examination for compliance with the domestic legal regime and the CBD.

Enforcement issues may relate to a breach of the agreement, which would be resolved in accordance with normal contractual principles of law. The domestic legal framework for access and benefit sharing may also include the use of criminal sanctions for non-compliance. Remedies for contractual breaches or criminal sanctions should be proportionate to the violation.

Elements for benefit sharing (material transfer) agreements

The Guidelines include a comprehensive list of provisions that could be included in any benefit sharing (or material transfer) agreement. Such a list is an invaluable resource to assist lawyers draft an appropriate agreement.

Recommendation 15:

When implementing an access and benefit sharing regime, Samoa should have regard to the *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization* as a useful tool to assist with the implementation of its obligations under the CBD.

Development of an Action Plan for Capacity-Building for Access to Genetic Resources and Benefit-Sharing

The Parties to the CBD have been working to develop an action plan for Capacity-Building for Access to Genetic Resources and Benefit-Sharing. It aims to facilitate

and support the implementation of the CBD at various levels including local, national, regional and international levels. To achieve this aim, the plan will provide a framework to identify country and stakeholder needs, priorities, implementation mechanisms and funding sources.

Regional issues

There have been a number of regional initiatives in the South Pacific to consider protection of traditional knowledge and access and benefit sharing in the last 8 years.

The **South Pacific Regional Environmental Program** (SPREP) has undertaken a project on implementation of the CBD, in partnership with the Foundation for International Environmental Law and Development (FIELD) and the World-Wide Fund for Nature South Pacific Program (WWF-SPP). Begun in 1997 with British Government funding, this project has included the production of the publication *Convention on Biological Diversity: an information package for Pacific Island Countries* (2000).

The **SPREP Information Package** contains useful discussion and guidance on the implementation of the CBD, much of which is in a similar vein to the Bonn Guidelines. Of particular interest is the inclusion of case studies about bioprospecting and benefit sharing currently underway in Fiji (University of the South Pacific, Strathclyde Institute for Drug Research/Verata Community) and in Papua New Guinea (Papua New Guinea Oil Palm Research Association and Oxford University).

SPREP, FIELD and WWF-SSP hosted a **Regional Workshop** in Nadi, 1998, to consider draft working papers for development into the SPREP information package (noted above). The workshop also developed a regional position for the 4th CBD Conference of Parties held in 1998. An outcome of the workshop was the **Nadi Statement (1998)** which recommended activities for regional support of CBD implementation. One recommendation included further work on access to genetic resources and benefit sharing issues.

A further **Regional Workshop** on Access to Genetic Resources and Benefit Sharing in the Pacific Islands Region, Nadi, was hosted in 2000 by SPREP, WWF-SPP, Commonwealth Secretariat and FIELD. It was attended by representatives from Pacific Islands governments, Forum Secretariat, Secretariat of the Pacific Community, USP, CBD Secretariat and host organisations. This workshop resulted in the **Nadi 2000 Statement**, including guidelines on access to genetic resources in Pacific Island Countries.

The **Secretariat of the Pacific Community** (SPC) has facilitated the development of draft model laws on (1) protection of traditional knowledge and (2) access to genetic resources and benefit sharing. Some provisions of the draft model laws initially caused some controversy, for example, the introduction of a new regional court system to deal with traditional knowledge issues. However, the draft laws have since been revised following consultations with SPC members.

The ***Draft Model Law for the Protection of Traditional Knowledge and Expressions of Culture*** was approved by an SPC Working Group of Legal Experts in June 2002.

The Draft Model Law establishes new rights for owners of traditional knowledge and expressions of culture (eg music, dance, art, stories) incorporating ideas of prior informed consent and benefit-sharing. Following submission to the Forum Economic Ministers Meeting, it will be circulated to Pacific islands countries for their consideration and action as appropriate. Samoa was represented in this process by the Ministry of Youth, Sports and Culture.

The ***Draft Model Law on Access to Genetic Resources and Benefit Sharing*** has yet to be finalised. There has been some debate between the SPC, the Forum Secretariat and SPREP about the appropriate regional forum to take responsibility for finalisation of the draft Model Law.

The **Pacific Islands Forum** has considered issues about protection of traditional knowledge and access to genetic resources at meetings of Leaders, Economic Ministers and Trade Ministers. The SPC draft Model Laws are expected to be considered by Forum Economic Ministers once finalised.

The **Mataatua Declaration on the Cultural and Intellectual Property Rights of Indigenous Peoples** includes recommendations relevant to traditional knowledge and genetic resources, following a 1993 conference in New Zealand.

Recommendation 16:

- (a) Samoa should continue to participate, and monitor developments, in international and regional initiatives concerning traditional knowledge and access to genetic resources.
- (b) Relevant Government departments should coordinate these activities with other agencies with overlapping responsibilities in the area.

OTHER INTERNATIONAL DEVELOPMENTS

Access and benefit sharing and traditional knowledge are being considered in a number of other international organisations, in parallel with the Convention on Biological Diversity.

World Intellectual Property Organisation

The World Intellectual Property Organisation (WIPO) established an Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore in October 2000 to consider issues of:

- access to genetic resources and benefit-sharing;
- the protection of traditional knowledge, innovations and creativity; and
- the protection of expressions of folklore

The Inter-Governmental Committee's work has focussed on practical issues to define and scope the subject areas. Work at the moment has included development of:

- a database of traditional knowledge (including that associated with genetic resources);
- a database of existing access and benefit sharing agreements; and

- a toolkit for documentation of traditional knowledge.

Proposals have also been put forward that patent applications should demonstrate:

- whether the claimed inventions use traditional knowledge;
- that the prior informed consent of the traditional owners was obtained; and
- that benefits from the patent will be shared with the traditional owners.

Some WIPO members have been pushing for the development of a new international treaty to create a new form of intellectual property right that specifically protects traditional knowledge (often referred to as a *sui generis* system). All WIPO members, including Samoa, may participate in the work of the Inter-Governmental Committee.

World Trade Organisation TRIPS Council

The WTO TRIPS Council has also been considering protection of traditional knowledge and access to genetic resources. This has principally been in the context of the review of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) provisions dealing with the patenting of genetic resources such as plants, animals and micro-organism.

The TRIPS Council has discussed the issue of disclosure of the use of traditional knowledge in patent applications. The Council is closely watching the progress of the WIPO Inter-Governmental Committee to inform its deliberations.

Debate continues as part of the current round of trade negotiations launched at the WTO Ministerial Meeting in Doha, 2001. The issue of access to genetic resources has also arisen in the WTO Committee for Trade and the Environment. This is an issue for Samoa to monitor as it amends its intellectual property laws as part of its WTO accession.

Food and Agriculture Organisation

The UN Food and Agriculture Organisation has also considered issues about access to genetic resources, and concluded the International Treaty on Plant Genetic Resources for Food and Agriculture in November 2001. The treaty's objectives are:

- the conservation and sustainable use of plant genetic resources for food and agriculture; and
- the fair and equitable sharing of the benefits arising out of their use, in harmony with the Convention on Biological Diversity, for sustainable agriculture and food security.

Samoa is not currently a party to this treaty, however, it must be considered as part of the international framework in which issues of genetic resources and traditional knowledge are being considered. It is particularly relevant to plant genetic resources that are held *ex situ* (ie in central seed banks or germplasm collections outside of their country of origin).

Recommendation 17:

- (a) Samoa should continue to participate, and monitor developments, in international initiatives concerning traditional knowledge and access to genetic resources. This is particularly important in terms of Samoa's strategic positioning internationally, particularly in the context of Samoa's accession to the World Trade Organisation.
- (b) Relevant Government departments should coordinate these activities with other agencies with overlapping responsibilities in the area.

Recommendation 18:

Future policy development must be aware of, and not run contrary to, the various international developments in relation to protection of traditional knowledge and access to genetic resources

CONCLUSIONS

There are a number of significant developments at the domestic, regional and international level concerning traditional knowledge and access to genetic resources. These developments need to be considered and where appropriate, incorporated, into an action plan for Samoa.

Samoa's existing domestic regime for access and benefit sharing and protection of traditional knowledge needs to be reviewed, updated and enshrined in law. Developments made by previous projects in the area and relevant case studies should be built upon and further enhanced.

A broad range of government departments have intersecting responsibilities concerning traditional knowledge and genetic resources. There is a pressing need for greater coordination and communication about these various projects and responsibilities. Further, given the multifaceted nature of these issues, there is a need for a "whole of government" policy relating to traditional knowledge and genetic resources to promote Samoa's social and economic development. This should aim to ensure consistent policy making and activities at the departmental level.

In addition to domestic developments, regional and international initiatives must be taken account of when developing a national action plan. It is vital to ensure that any national action plan does not run contrary to regional and international developments. This could have a strategic impact on Samoa's future international relations, particularly with the World Trade Organisation. Domestic law and policy must implement Samoa's obligations under the Convention on Biological Diversity. It should also take account of developments in the Secretariat of the Pacific Community, Forum Secretariat, World Intellectual Property Organisation, World Trade Organisation and Food and Agriculture Organisation.

PART C: ACTION PLAN FOR CAPACITY BUILDING PROGRAMME

The purpose of the action plan is to set a strategy to properly manage Samoa's genetic resources and related traditional knowledge. This would integrate and coordinate activities at the national and village level.

The action plan establishes a process to (1) facilitate access to Samoa's genetic resources and associated traditional knowledge, and (2) to require the sharing of any benefits from that access.

A key element of the action plan is the development of a National Strategy to set the overall direction and aim for an access and benefit sharing framework. The national strategy should also identify links with other measures that implement CBD obligations, as well as links with associated issues particularly in the area of traditional knowledge.

This plan incorporates the outcomes of the community consultations and individual interviews. It also has regard to features from existing national policies, regional developments and international best practice, particularly the Bonn Guidelines.

MANAGEMENT MODEL

When formulating a decision-making model for access and benefit sharing, the project team has had regard to existing models for decision-making that bring together government and village communities. These models are outlined below to provide context and guidance for the proposed decision-making model for access and benefit sharing.

Existing decision-making models

There are a number of existing models for decision-making that involve both central government and village communities. These models are used in the context of environmental management schemes, by-laws, licences or permits. They utilise varying degrees of shared decision-making, consultation and partnership.

Case study 1: fisheries conservation and management

Model: central government decision; moderate village involvement in decision process and benefit sharing

Fisheries conservation and management plans provide a model of decision making by central government in consultation with villages, industry and individuals.

The CEO of the Ministry of Agriculture is empowered to make by-laws for the conservation and management of fisheries (s.3(3)(d) of the *Fisheries Act 1988*). These by-laws are made in consultation with fishermen, industry and village representatives. Following this consultation, the by-laws are signed by the CEO and published. Where the by-laws apply to fisheries conservation and management in lagoon waters, a copy of the by-law is given to the Pulenuu of adjacent villages at least 7 days before the by-law comes into force. A breach of a by-law results in fines.

These by-laws, or fisheries conservation plans, are in place in relation to many villages in Savaii and Upolu. Over the period 1997-2002, plans have been put in place for 57 villages.

Case study 2: forestry licences
Model: central government decision;
minimal village involvement in decision process;
moderate to high village benefit sharing

Forestry licences provide a model of decision-making by central government to issue a licence or permit. While villages have minimal involvement in the decision-making process, they do receive financial benefits from logging that are shared between government and villages using a trust fund or direct payments. These licences are largely used to enable villages to log adjacent forested land. There are also two local commercial logging operators who have been granted these licences. There is currently no logging by foreign companies.

The Minister of Agriculture may grant a licence to enter forests and remove timber from government-owned land (s.24(1) of the *Forests Act 1967*). This logging licence may also include special covenants or conditions. The Minister may also grant a logging licence or a lease in relation to customary land (using provisions of the *Alienation of Customary Land Act 1965*).

Removal of timber is accompanied by the payment of a royalty or stumpage fee to be paid to the CEO of the Ministry of Agriculture. Half of the stumpage fee is held in trust for the relevant landowners and the other half is retained by the government as a forestry fee. In practice, the fees are distributed to village landowners as a cash payment to the village *matai* or to village bank accounts (trust accounts) where applicable.

Case study 3: sand mining permits
Model: central government decision;
Moderate to high village involvement

Sand mining permits are an example of central government decision making with a higher degree of involvement of village communities in that process.

The Minister for Environment and Natural Resources may consent to the removal of sand from the foreshore (s. 119 of the *Lands Surveys and Environment Act 1989*). This decision is made in consultation with the villages that communally own the land in the area. (However, land below the high-water mark is publicly owned land).

In practice, a permit is issued by the Minister. The written permit is also endorsed with the *Pulenuu*'s signature to indicate the village's agreement to the permit.

These case studies demonstrate that there are a number of different models of decision-making and benefit sharing that have varying roles for government and villages. Over time, there has been a trend towards higher levels of village involvement in decision making and benefit sharing and greater community ownership of these processes and outcomes.

Proposed model

The community and individual consultations identified a number of issues that should be incorporated into a decision-making model for access and benefit sharing:

- High value placed on traditional knowledge;
- Central role of village governance in the process;
- Partnership between village and government; and
- Appropriateness of a permit system.

The partnership issue was expressed with varying emphases on the relative roles of villages and government. For example, community representatives tended to favour villages having the final decision about access and benefit sharing in consultation with government, on the basis that the decision rightly belonged to village decision-makers such as the *alii ma faipule*. On the other hand, government representatives tended to favour government making the final decision in consultation with villages, on the basis that government makes the decision on behalf of villages and all Samoans.

While it is important to accommodate these varying points of view, it is also important that an access and benefit sharing scheme is practical, workable and does not involve undue complexity. As demonstrated in the case studies above, there are various mechanisms that can be used to accommodate varying degrees of involvement by stakeholders.

Overview of model

The proposed model encompasses a partnership between village and government to operate in accordance with *fa'a Samoa*. The process would be managed by a government focal point in DEC that would facilitate and monitor the operation of the scheme. Researchers would make applications to the DEC focal point. These would then be considered by a National Access and Benefit Sharing Committee that would provide the forum for consultation with key stakeholders in government, villages and NGOs. A consensus decision would then be made through this National Committee about the applications for access. This process can be summarised as follows:

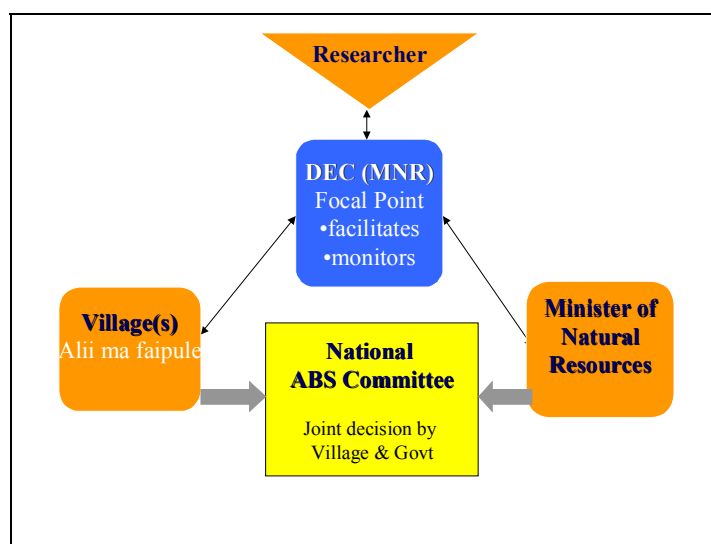


Figure 4: Decision making for access and benefit sharing

Recommendation 19:

A decision making model for access and benefit sharing should be implemented that encompasses a partnership between village and government. This process should be managed through a government focal point and a National Access and Benefit Sharing Committee.

The decision-making model in detail

Focal point in MNRE

Applications for an access permit and associated benefit sharing arrangements should be made to a single government focal point. This area would be responsible for the administration of the access and benefit sharing process and take ownership of the process.

The need for a focal point is identified in the Bonn Guidelines and international best practice. It provides an efficient means of managing the interface between the scheme and its various participants including researchers (who are users of the scheme), communities, governments and other stakeholders. A national focal point facilitates the scheme's operation by having a single point in government to provide information about the relevant procedures and stakeholders, both in government and the community. The focal point would also facilitate and manage the operation of the process from application through to decision making, monitoring and enforcement.

The focal point would **coordinate and facilitate** the access and benefit sharing process. Its role should include the following specific responsibilities:

- accept, process and facilitate approval of applications for access and benefit sharing agreements;
- disseminate information about the scheme as a whole;
- provide advice to the National Access and Benefit Sharing Committee (the National Committee) on the negotiating process for access and benefit sharing and the requirements under the national policy;
- support the National Committee's consultative role that involves stakeholders, particularly village communities, but also government departments and NGOs;
- maintain written records of the process;
- monitor the progress of approved projects and benefit-sharing arrangements and inform the National Committee of such progress; and
- enforce the access and benefit sharing arrangements where required (eg where benefits are not delivered as agreed or criminal prosecutions).

As the government agency responsible for implementing Samoa's obligations under the Convention on Biological Diversity, it is appropriate that the focal point for an access and benefit sharing regime is located within the Ministry of Natural Resources and Environment (MNRE). It would be appropriate that this role is conducted by the Division of Environment and Conservation (DEC). In order to undertake this role, DEC will require extra resources (see further below).

When implementing the scheme, it will be important to ensure that all applications for research relating to genetic resources (plant and animal) are channelled through this process. There is currently a range of other research permits that are available (eg through various areas of the Ministry of Agriculture and the Ministry of the Prime Minister). If these other permit systems continue to operate, this could result in applicants "playing the system" and avoiding the MNRE process, thereby weakening the MNRE process and avoiding the benefit sharing requirements.

Recommendation 20:

- (a) A focal point should be established in the Ministry of Natural Resources and Environment (MNRE) to coordinate and facilitate the access and benefit sharing process. The Division of Environment and Conservation in MNRE will require extra resources to undertake this role.
- (b) The access and benefit sharing scheme should supersede research permit processes in other Ministries so that applicants cannot “play the system”.

National Access and Benefit Sharing Committee

A National Access and Benefit Sharing Committee would provide an avenue for stakeholder consultation, decision-making and monitoring. The role of the National Committee would include:

- Reviewing applications for access permits and oversight of consultations with stakeholders;
- Making decisions on applications for access permits
- Reviewing, negotiating and agreeing on proposed benefit sharing arrangements, including stakeholder consultations; and
- Overseeing the implementation of access and benefit sharing arrangements, including receiving progress reports.

The National Committee would encourage greater transparency and accountability in relation to the access and benefit sharing process.

Recommendation 21:

A National Access and Benefit Sharing Committee should be established to provide an avenue for decision-making and monitoring in relation to the access and benefit sharing process.

Membership of Committee

The National Committee should have a core membership of key decision-makers from government and villages as follows:

- Minister for Natural Resources and Environment;
- CEO of the Ministry of Natural Resources and Environment;
- CEO of the Ministry for Women, Community and Social Development;
- 2 co-opted members representing the village where the research is proposed to be undertaken (eg *Pulenuu* and *Matai* representative); and
- Other co-opted members to provide technical advice as necessary (eg officers from the Ministry of Agriculture).

Having a limited number of members on the National Committee seeks to ensure a smooth and efficient process of decision-making. This is particularly important given that the decisions on access and benefit sharing should be subject to timeframes (see

further below). Where an application concerns more than one village, it may be appropriate to make decisions with representatives from each separate village rather than making one decision for the entire application.

Decisions about granting access to researchers and the sharing of benefits would be made in a **consensus** fashion between relevant government and village decision makers. In practical terms, this would involve a shared decision between the Minister for Natural Resources (on advice of his Ministry staff) and the *alii ma faipule* of the relevant villages, in accordance with *fa'a Samoa*.

Recommendation 22:

Membership of the National Committee should consist of the Minister for Natural Resources and Environment, CEO of the Ministry of Natural Resources and Environment, CEO of the Ministry for Women, Community and Social Development, 2 co-opted members representing the village where the research is proposed to be undertaken (eg *Pulenuu* and *Matai* representative) and other co-opted members to provide technical advice as necessary.

Recommendation 23:

The National Committee would make decisions on a consensus basis between government and village decision-makers.

Consultation with other stakeholders

There are a number of other stakeholders from across the government and community that should have the opportunity to be consulted during the decision making process. During the community consultations, participants identified the need to consult with a range of interested parties when making decisions about access and benefit sharing. The Bonn Guidelines also emphasis the importance of involving relevant stakeholders in the actual process of permitting access and putting in place benefit sharing arrangements.

Once an application for an access permit has been received by the DEC focal point, an opportunity should be provided to relevant stakeholders to comment on the application. This should be facilitated by the publication of a notice in the local newspapers and on the radio. The notice should also include contact details for the DEC officer to receive the comments and a closing date for submissions.

Recommendation 24:

Consultation with stakeholders, including the community and NGOs, should be undertaken through a period of public consultation advertised through public notices in newspapers and on radio. This consultation should be facilitated by the DEC focal point.

ELEMENTS OF A NATIONAL ACCESS AND BENEFIT SHARING STRATEGY

A National Access and Benefit Sharing Strategy is a key element of the action plan. It should set the overall direction for the access and benefit sharing framework as well as linking with other related measures concerning CBD obligations and, more broadly, protection of traditional knowledge.

A national access and benefit sharing strategy should seek to ensure the conservation and management of Samoa's genetic resources and traditional knowledge for the benefit of all Samoans. In achieving this aim, it will enable the equitable sharing of benefits, the conservation and sustainable use of biological diversity and the protection and conservation of Samoa's traditional knowledge. Such a strategy should be consistent with the National Biodiversity Strategy and Action Plan.

A national access and benefit sharing strategy should address a number of issues including:

- The scope of the scheme's application;
- The rights, roles and responsibilities of all participants in the process, including government, villages and researchers;
- A detailed procedure for access and benefit sharing from application and decision making through to implementation, monitoring and enforcement;
- Public awareness activities;
- Establishment of a legal framework; and
- Involvement in regional and international developments.

Recommendation 25:

A National Access and Benefit Sharing Strategy should be established to govern the operation of the access and benefit sharing regime. The Strategy should address issues such as: the scheme's scope; rights roles and responsibilities of participants; detailed procedures for the scheme; public awareness activities; legal framework; and regional and international developments.

Scope of the scheme's application

When developing an access and benefit sharing regime, it is important to consider its scope particularly in terms of nationality of researchers, non-profit research, stakeholders, type of research and derivative products.

Nationality: The scheme should apply to both Samoan nationals and overseas citizens. There is no justification for applying the scheme in a discriminatory way on the basis of nationality or residence. However, it may be appropriate to waive or reduce access fees for Samoan-based researchers. Benefit sharing arrangements should be determined on a case-by-case basis and tailored to the circumstances of both the research and the researchers.

Non-profit research: Consideration should be had to the case of non-profit research, particular when it is conducted by university students or by publicly funded tertiary

institutions with limited budgets. It is important not to create barriers to entry or disincentives to conduct research by enforcing large access fees or a complicated permit approval process. Field work and research, particularly that undertaken by masters or doctoral students who spend extended time in the field, can be of enormous benefit to Samoa. This is particularly pertinent when the relevant Samoan authorities or institutions do not have the financial or human resource capacity to conduct the research themselves.

In these circumstances, there should be a discretion to waive or reduce access fees. Similarly, benefit sharing arrangements should be tailored for each situation and could include the sharing of research outcomes. In such non-profit situations, it will be important to include undertakings in the benefit sharing agreement about future use and commercialisation of the research, particularly by the researcher's parent institutions and third parties.

Stakeholders: When determining who the relevant stakeholders are, regard must be had to issues of land ownership and usage. For example, research taking place on customary land would require consultation with the customary owners. In other circumstances, research may not involve access to villages or communally owned land, or discussions with people about traditional knowledge. Research into genetic resources that takes place on government owned or freehold land should still, however, be subject to the access and benefit sharing process. In these situations, the relevant stakeholders for consultation will be the appropriate government representatives or private land owners.

Type of research: The scheme should apply to all research that concerns genetic resources. It is important that reference is made to the Convention on Biological Diversity (CBD) which sets the parameters for the scheme. It must apply to research relating to all plant, animal and microbial genetic material (not human genetic material), as defined in Article 2 of the CBD. The scheme as a whole should be consistent with Article 15 of the CBD which sets out the conditions for access to genetic resources. It is not necessary that the research should include use of traditional knowledge. However, where traditional knowledge is utilised, regard should be had to the conservation and sustainable use of that knowledge, in accordance with Article 8(j) of the CBD.

This report is limited by the parameters of the CBD and as such, the proposed scheme does not apply to research that utilises traditional knowledge in the context of cultural studies, sociology, history, linguistics etc. However, the application of an access and benefit sharing regime in these other contexts is something that should be considered and underlines the need for a whole of government strategy for traditional knowledge (see further below).

Derivatives and synthetic derivatives: Consideration should be had to the issue of derivatives and synthetic derivatives. These are products that are either derived from genetic resources, or are made artificially using genes or other biochemical molecules. This issue was raised in community consultations and participants were keen to ensure that any regulatory regime extended to synthetic derivatives.

A number of access and benefit sharing regimes around the world apply to derivative products, and some also apply to synthetic derivative products. The trend in recent years has been to extend the application of benefit sharing arrangements to derivatives and synthetic derivatives.² The Samoan National Strategy should clearly apply to derivatives and synthetic derivatives

Recommendation 26:

When developing the National Strategy, regard must be had the scheme's scope including the following issues:

- (a) the scheme should apply equally to non-Samoans and Samoans;
- (b) fees should be able to be reduced or waived for non-profit research;
- (c) the scheme should be flexible to accommodate different stakeholders where research is to be conducted on government or private owned land;
- (d) the scheme should apply to all research that concerns genetic resources, consistent with the CBD; and
- (e) the scheme should apply to derivatives and synthetic derivatives based on genetic resources.

Ex situ collections

This report has also not considered the issue of *ex situ*³ conservation of genetic resources (eg Article 9 of the CBD) as it is beyond the scope of the project. Nor has it considered the issue of *ex situ* genetic resources that were collected before the CBD came into force. However, these are issues that deserve further investigation particularly in light of the finalisation of the FAO International Treaty on Plant Genetic Resources. Related to this issue are the arrangements (both existing and proposed) that Samoa has in place in relation to deposit of genetic samples in germplasm banks, such as those facilitated by the Secretariat of the Pacific Community and the University of the South Pacific.

Recommendation 27:

Future work should be conducted on the issue of *ex situ* collections of genetic resources collected both before and after the commencement of the CBD. This should include consideration of arrangements relating to regional germplasm collections and the FAO International Treaty on Plant Genetic Resources.

Roles and responsibilities in the conduct of the process

The National Strategy should include detailed information about the roles and responsibilities of the various stakeholders in the process. The Bonn Guidelines include a model of relevant roles and standards of conduct. These are consistent with the aims of public sector reforms that have been implemented in Samoa in recent years.

² SPREP Information Package (2000), p.33.

³ ie collections of plants and animals outside of their natural habitats. Examples of *ex situ* collections include botanical gardens, natural history museums or germplasm banks.

Central government

DEC, as the government focal point, should be responsible for administering the access and benefit sharing regime. This responsibility should include the development and implementation of the National Access and Benefit Sharing Strategy. DEC's role is essentially to **coordinate and facilitate** the access and benefit sharing process.

Government stakeholders, both within the MNRE and in other Ministries, have different roles and interests as compared to community representatives and NGOs. It is appropriate that government stakeholders should be guided by principles and responsibilities as follows:

- act in a clear, objective and transparent manner;
- ensure that communities can fully represent their interests in the process and be informed of decisions. This may include providing a mediator and/or scientific adviser to assist communities;
- ensure that traditional uses of genetic resources can continue;
- report to the international community about access and benefit sharing issues through mechanisms such as the CBD (eg the clearing-house mechanism) and other international and regional projects; and
- ensure that all stakeholders take environmental considerations into account.

These principles should be clearly stated in the National Strategy and the National Committee's guidelines for operation.

Village communities

Village community stakeholders (eg *Pulenuu* and *alii ma faipule*), have responsibility, in partnership with government, for making decisions about access and benefit sharing. In fulfilling these responsibilities, it is important to take account of the particular circumstances of community representatives both in terms of their land ownership, traditional knowledge resources and socio-economic factors. As such, village communities should be able to:

- participate equally with government through the National Committee when negotiating with researchers about approval of access applications and subsequent benefit sharing agreements in accordance with the national policy. This may include requesting advice and technical assistance from DEC;
- participate in training and awareness raising programs about the access and benefit sharing policy framework;
- monitor the progress of approved projects and benefit-sharing arrangements; and
- enforce the access and benefit sharing arrangements where appropriate in accordance with *fa'a Samoa*.

When undertaking these roles, villages should be guided by the following principles to:

- only supply genetic resources and/or traditional knowledge when they are entitled to do so;
- ensure the full participation of all in the village (particularly women) so that their voices are heard in both decisions about access and the sharing of benefits, in accordance with the principles of equal participation in the CBD;
- avoid arbitrary restrictions on access to genetic resources.

These principles should be clearly stated in the National Strategy and the National Committee's guidelines for operation.

Researchers or users of scheme

The roles and responsibilities of researchers (or users of the scheme) will be regulated by the legal framework and National Strategy. However, it is appropriate that a **code of conduct** for researchers is developed to provide practical and easily accessible information about how researchers should conduct their research. This code of conduct should be included in information kits for researchers.

Researchers who use genetic resources should ensure that they:

- seek the prior informed consent of the owners of the genetic resources before they use or take samples;
- act respectfully to communities including respecting customs and responding to requests for information;
- keep within the bounds of activities they have been permitted to do and seek further permission if they wish to change the scope of the research;
- maintain data, particularly documentary evidence, about the project, consent given, information collected and benefits arising from the use of the information collected;
- adhere to benefit sharing commitments when supplying genetic resources to third parties. The researcher should provide the third party with sufficient information to adhere to these commitments, including information about the acquisition of the information, conditions on its use and benefit sharing arrangements; and
- ensure the fair and equitable sharing of benefits.

General conduct of scheme

Overall, the access and benefit sharing regime should be transparent and accountable. As outlined in the Bonn Guidelines, the process should be characterised by:

- Legal certainty and clarity;
- Transparent processes;
- Accessible policy and procedural information so that interested parties may be informed;
- Facilitation of access to genetic resources at minimum cost; and
- Consent of the relevant community and government stakeholders.

Any restrictions on access to genetic resources should be transparent, based on legal grounds and not run counter to the objectives of the CBD.

Recommendation 28:

The National Strategy should specify the roles and responsibilities of government, villages and users (ie researchers) of the scheme. These roles and responsibilities should also be set out in the National Committee's guidelines for operation and in a Code of Conduct for Researchers. The scheme as a whole should be conducted in a transparent and accountable way.

Detailed steps in the access and benefit sharing process

Steps in the access and benefit sharing process

The access and benefit sharing process should consist of two main parts:

1. An **access permit** will be issued following a decision by the relevant village(s) (where the research is intended to be conducted) and central government through the National Committee. The permit will include any conditions imposed on the access and will refer to the benefit sharing agreement. Legal authority for the permit will be provided by legislation;
2. The permit will be supplemented by a **benefit sharing agreement** which specifies details about the benefit sharing arrangements entered into. The agreement will be made between the bioprospector on one part, and the government and village on the other part. Legal authority for the agreement will also be provided by the legislation.

The relevant documents for both steps of this process must be prepared and made available to the relevant stakeholders in both Samoan and English.

Access permit process

Conduct of an access permit process:

The procedures for obtaining an access permit should be **transparent and readily accessible**. An effective access process may be characterised by the following principles:

- legal certainty and clarity with as much simplicity as possible;
- minimum cost; and
- restrictions on the access should be transparent and consistent with CBD requirements.

Cost

High costs, through permit application fees or sampling fees, could operate as a disincentive or barrier to access. It is clear from the stakeholder consultations that there are a number of research projects that are of great benefit to Samoa and it would not be in Samoa's interests to discourage these activities.

While it is appropriate to charge application and sampling fees, these fees should be set at a reasonable level. The scheme should also provide a mechanism to waive or reduce the access fees in certain situations, such as when university students are undertaking post-graduate research.

Timing and deadlines

It is important that the access process does not take too long and create barriers or disincentives to access. A lengthy process could dissuade researchers from undertaking work in Samoa, which would deny Samoa the opportunity to benefit from its natural resources.

The current Conditions for Access and Benefit Sharing, administered by DEC, impose a deadline of 20 working days for determination of an application for access. This timeframe should be maintained in the National Strategy.

Record keeping

It is important that the access and benefit sharing process is appropriately documented in writing. Keeping proper records will greatly assist with monitoring of authorised projects and will provide documentary evidence should a permit be breached and is required to be enforced through legal action. Details of permits issued should be kept in a registration system, such as a database (preferably a computer database) to enable ease of access to the information. Record keeping will also assist with any future reviews of the scheme.

Recommendation 29:

The conduct of the access process should be characterised by:

- (a) A transparent and readily accessible process;
- (b) Reasonable costs;
- (c) Reasonable timeframes, for example, a decision on access should be made within 20 working days after the application is made; and
- (d) Written record-keeping.

Making an application for an access permit

The process begins when a researcher makes an application for an access permit to the focal point in DEC. In order for the decision makers (village and government) to make an informed decision about whether or not to grant permission to access genetic resources, researchers should provide information about themselves and their project. This information can be used to fully inform decision makers before they make a

decision about access and begin to negotiate benefit sharing arrangements. This information should address the following issues:

1. **Personal details** of the applicant researcher and their institution or company. This should include sufficient personal identifying information to enable a check of the researcher's *bona fides*;
2. **Description of the proposed research** activity including the project's purpose and intended results, scope, starting date and duration, and the type and quantity of genetic resources to which access is sought;
3. **Geographical area** where research is to be conducted (including names of villages or districts if possible);
4. Assessment of **environmental impact** of research, including impact on conservation and sustainable use of biodiversity (to enable the costs and benefits of access to be determined);
5. Description of **research methods**, including where **traditional knowledge** is proposed to be relied upon or investigated;
6. Information about the **intended use** of the research (eg taxonomy, collection, research, commercialisation), possible involvement by **third parties** and how and where **research and development** will be carried out;
7. Identification of **possible benefits** that could arise, including non-financial benefits, financial benefits arising from any products that might be developed and indicative benefit sharing arrangements;
8. Identification of **local partners**, such as educational institutions or businesses, that could collaborate in research and development; and
9. **Budget** for project.

Recommendation 30:

An application for an access permit should be accompanied by sufficient information to enable decision makers to make an informed decision. At a minimum, this should include information about: the applicant's personal details; description of the research; geographical area of research; environmental impact; research method; intended use of research including involvement by third parties; possible research and development; possible benefits; local partners; and budget.

Consideration of application

Having received the application, DEC would then facilitates the making of a decision about access by the National Committee. In support of the National Committee's role, DEC should:

- **Check** the researcher's *bona fides* (ie the verification of their personal details), including confirming that they are authorised to represent their institution or company. NUS may be able to assist to check with academic institutions;
- Make **arrangements for public consultation** with stakeholders by publishing a newspaper and radio notice and receiving submissions during the specified consultation period;
- **Prepare information** for the National Committee to support its decision-making process. This may involve the use of scientific or technical advice to assess the application and its possible impacts, particularly in relation to

environmental impacts. The aim of this process is to ensure that the access decision is based on **informed consent**; and

- Ensure proposal is **consistent with legal framework** (eg in terms of maximum sample size).

Recommendation 31:

DEC should support and facilitate the decision-making role of the National Committee. This may include: verification of a researcher's personal details; making arrangements for public consultation; preparing information about the applications for the Committee to ensure that any decision to grant access is based on informed consent; and checking that the proposal meets the legal framework.

Grant of permit

Once a decision has been made about a permit application, DEC should notify the applicant of the outcome of the decision and advise whether the application has been approved or refused.

Where an application is **refused**, DEC should provide the applicant with a short statement of reasons explaining why the application was rejected, for example, the project did not have an environmentally sound use.

Where an application is **approved**, DEC should issue the researcher with a written permit to provide evidence of the consent to access genetic resources. This permit should be endorsed with the signatures of the Minister (or his delegate) and the relevant *Pulenuu(s)*.

The researcher may keep this permit with him/her as written proof that he/she is authorised to conduct the research. The written permit should include reference to the **specific acts** that are authorised, or **conditions** attached to the permit including maximum permitted sample size. This will assist with monitoring and enforcement of the scheme in order to verify whether the activities undertaken are consistent with the permit. The permit should also include brief reference to the related benefit sharing arrangements.

Recommendation 32:

- (a) Decisions to refuse an access permit should be notified to the applicant accompanied by a short statement of reasons.
- (b) Decisions to grant an access permit should be notified to the applicant accompanied by a written permit that includes any limitations, such as specific acts that are authorised or any conditions attached to the permit including limits on geographical area, duration or sample size. The permit should also include reference to the benefit sharing arrangements. It should be signed by the Minister (or his delegate) and the relevant *Pulenuu(s)*.

Conditions on permits

The national strategy should provide guidance for limitations or conditions placed on permits. These could relate to limits on geographical area of permitted research, duration of the permit or sample size.

The current *Conditions for Access to and Benefit Sharing of Samoa's Biodiversity Resources* place a limit on samples of 100 grams for plant material or 1 gram for extract. This limit is relevant in the case of projects such as the NUS/Nihon University Botanical Inventory but has more limited application when researchers seek to take larger cultivars, particularly for use in *ex situ* collections such as botanical gardens. The national strategy should provide enough flexibility to permit appropriate sizes of samples. What is an appropriate size should be determined in consultation with scientific advisers, such as officers from the Ministry of Agriculture.

Recommendation 33:

- (a) The National Strategy should provide guidance on conditions or limitations on access permits dealing with issues such as geographical area; time duration; and sample size.
- (b) In relation to sample size, flexible guidelines should be put in place to limit sample sizes to appropriate levels. This should be determined in consultation with the Ministry of Agriculture and other technical advisers.

Benefit sharing

The second part of the access and benefit sharing process is the preparation of a **benefit sharing agreement**. This agreement will provide detailed information about the benefit sharing arrangements entered into between the bioprospector on one part, and the government and village on the other part.

Conduct of process of benefit sharing

It is a fundamental requirement of the CBD that benefits must be shared fairly and equitable on the basis of mutually agreed terms. An effective benefit sharing process may be characterised by the following principles:

- **legal certainty** with as much **simplicity** as possible;
- **minimum transaction costs** (this can be assisted by promoting awareness of the scheme's requirements and developing standard benefit sharing agreements);
- negotiate written agreements **efficiently** and within a reasonable period of time;
- address the **obligations of both users and providers** of genetic resources as well as considering **ethical issues**;
- ensure the **continued customary uses** of genetic resources; and

- consider possible **intellectual property right issues** (such as ownership of patents for discoveries made out of the research).

Further, benefit sharing should be guided by the principle that benefits should be used in a way that **promotes conservation** and **sustainable use** of biodiversity.

Recommendation 34:

Benefit sharing should be guided by principles of: legal certainty and simplicity; minimum transaction costs; efficient and timely negotiation of agreements; addressing obligations of all involved including ethical issues; ensuring continued customary uses; considering possible intellectual property rights and promotion of conservation and sustainable use of biodiversity.

Who are the relevant stakeholders?

When considering appropriate benefits, it is also necessary to consider who is entitled to the benefits in order to identify who should participate in the benefit sharing process.

It is a fundamental requirement of the CBD that benefits must be shared fairly and equitably on the basis of mutually agreed terms. However, the CBD is silent about who are the appropriate stakeholders entitled to the benefits. The Bonn Guidelines provide further detail and state that:

benefits should be shared with all those stakeholders who have contributed to the access process, whether in terms of resource management, scientific or commercial skills.

These stakeholders may include local communities, government, academic institutions and other NGOs. The issue of stakeholders in benefit sharing needs to be approached in a broad and flexible manner.

There may be instances when government departments are the main recipients of benefits. This could arise when, for example, the Crops Division of the Ministry of Agriculture assists a researcher by cutting and preparing cultivars for export. Where these cultivars are taken from trees grown on government land, then there is unlikely to be village involvement in decision making on access and benefit sharing. The benefit sharing environment needs to be sufficiently flexible to accommodate these situations.

Recommendation 35:

Benefits should be shared fairly and equitably with all those stakeholders who have contributed to the access process, whether in terms of resource management, scientific or commercial skills. This could include local communities, government, academic institutions and other NGOs, determined on a case-by-case basis.

Negotiating a benefit sharing agreement

When the National Committee considers an access application, it should also consider a proposed benefit sharing arrangement. The application form completed by the researcher should describe possible benefits that may arise from the project.

DEC should have an important management role to facilitate the consideration of a range of benefits. They should also ensure that the benefits being sought by communities and government are realistic in the context of each particular application. Unrealistic requests in terms of benefits may dissuade researchers from seeking to do their research in Samoa. It may also cause researchers to try to circumvent the scheme.

During the negotiations, it may be appropriate to engage legal advisers. As the Government's legal adviser, the Attorney General's Office would advise the National Committee. However, it should be open to villages to engage their own private lawyers to advise them during the negotiations.

Recommendation 36:

- (a) DEC should facilitate the negotiation of benefit sharing arrangements, including providing advice on appropriate benefits on a case-by-case basis.
- (b) The negotiation process may include legal advisers for government and villages.

Indicative list of benefits

In order to assist the benefit sharing negotiations, the National Strategy should include an indicative list of possible benefits, both financial and non-financial. This list should also be available to applicants and the National Committee to assist them to put in place appropriate arrangements.

A sample list of benefits can guide and assist negotiations for benefit sharing arrangements. The Bonn Guidelines include an indicative list of financial and non-financial benefits that may be considered in benefit sharing arrangements (see [Appendix 11](#)). A range of benefits were also identified during the community consultations.

Examples of monetary benefits include:

Short-medium term benefits:

- Access fees/fee per sample collected or otherwise acquired;
- Up-front payments;
- Financial contributions to environmental trust funds to support conservation and sustainable use of biodiversity; and
- Joint ventures, salaries and research funding.

Long term benefits

- Milestone payments as research and development continues; and
- Payment of royalties (% of royalties may be set in legislation) or licence fees if the outcomes of the research are commercialised and/or joint ownership of relevant intellectual property rights.

Examples of non-monetary benefits include:

Short to medium term benefits

- Sharing of research and development results (including recordings of traditional knowledge and deposits of biological samples where appropriate) with national institutions such as NUS;
- Cooperation between researchers and community, such as assistance with community projects for schools, health facilities or environment conservation programs (eg for medicinal plants);
- Training and participation of Samoan researchers and students in the project (eg Samoan scientists to be involved in collection and analysis of information);
- Collaboration, cooperation and contribution in scientific research and development programmes, including employment of Samoans as co-researchers (collection and analysis) and training where appropriate;
- Alliances with local institutions and technology transfer (eg donating equipment used in project to local institutions). Could include set up of laboratory facilities in Samoa;
- Access to scientific information relevant to access applications, conservation and sustainable use of biological diversity, including biological inventories and taxonomic studies; and
- Written acknowledgement (eg in reports, journal articles and on packaging for any products developed) that Samoa is the sources of materials and information used in the research.

Long term

- Ongoing institutional and professional relationships that can arise from collaborative activities including opportunities for Samoans to work or study with the organisations that have undertaken the research;
- Recognition of Samoa as the source of the genetic resources and traditional knowledge in both the research and any commercialised products;
- Extension of the benefit sharing arrangements to derivative products and synthetic derivatives; and
- Joint ownership of relevant intellectual property rights (eg patents).

It will be necessary to tailor these benefits on a project-by-project basis. Choices about benefits could take into account factors such as the nature and budget of the research, skills of the researchers that can be transferred, training and employment opportunities for Samoans and the needs of the communities where the research is being conducted.

Decisions about appropriate benefits will need to be made by the relevant stakeholders in government and the community. Government's role also represents

the interests of other stakeholders in the process, such as educational institutions who have an interest in some of the benefits. Consultation with institutions such as NUS and Polytech will be crucial.

It is important to identify and incorporate both short to medium term benefits and long term benefits. These benefits should have associated timeframes within which they are expected to be delivered. Short to medium term benefits will mostly be delivered while the researchers are still in country. Longer term benefits, particularly financial benefits like royalties, are more difficult to monitor and enforce. While they may be lucrative in a small percentage of cases, they are also generally more speculative since they are usually dependent on further research and future work.

Once decided, the scope of the benefits should be clearly set out. Should the terms of the research change, such as the researcher seeks to vary the terms of the research or take other samples, then the benefits should be renegotiated.

Recommendation 37:

- (a) The National Strategy should include an indicative list of benefits (both financial and non-financial) that may be included in a benefit sharing agreement. This should be available to the National Committee and to applicants.
- (b) A benefit sharing arrangement should have regard to both short to medium term benefits and long term benefits.
- (c) Once settled, the benefit sharing arrangements should be clearly identified in the agreement, including expected timeframes for delivery of benefits.

Third parties

An issue identified in the community consultations and in the Bonn Guidelines is the transfer of research material to third parties. This may occur when a researcher's findings are acquired by another institution or company, principally for the purpose of commercialising the research, such as developing pharmaceuticals or industrial products.

It is critical that benefit sharing arrangements take account of third party transfers of information and material so that Samoa can still benefit from those later developments. This is a difficult issue that is still the subject of debate in international forums.

Recommendation 38:

- (a) Benefit sharing arrangements must take account of the possible transfer of information and genetic material to third parties. In such situations, arrangements must be in place so that Samoa still benefits from the use of the information and genetic material.
- (b) MNRE staff should continue to participate in and monitor the deliberations of international forums about these issues.

Export of samples

Once the research material has been collected, researchers will generally seek to export the material from Samoa. Export clearance is administered by the Quarantine Division of the Department of Agriculture whose role is to ensure that exported goods meet the quarantine conditions required by their destination country, particularly with regard to pests and disease.

Quarantine is an important enforcement gateway that could be utilised to ensure that samples have been collected in accordance with the access permit. It is unnecessary to impose a requirement for export permission to be sought from MNRE as this function is properly administered by the Quarantine Division.

Quarantine export requirements should include a proviso that permission to export plant and animal genetic material is conditional on demonstrating that the samples meet the requirements of the access permit. This enforcement role is particularly important in terms of meeting any limits on sample sizes. This change could be incorporated into the current revision of quarantine laws that is being undertaken in the Ministry of Agriculture.

Recommendation 39:

Quarantine export requirements should include a requirement to demonstrate that export samples are consistent with any access permits, particularly in terms of sample size. Such a requirement could be incorporated in the current revision of quarantine laws.

Distribution and mechanisms for benefit sharing

Once the benefits and beneficiaries are identified, how are they to be distributed? Mechanisms for distribution of benefits will depend on the particular package of benefits that has been negotiated. It is important that the means for distributing benefits is flexible and is determined by the relevant stakeholders on a case-by-case basis. However, the National Strategy and legislation should provide some guidance as to how this might occur.

Financial benefits may be distributed through direct payments to stakeholders, through trust funds or village bank accounts. For example, access fees paid to DEC could be distributed to the relevant villages. Consideration should be had to whether DEC deducts a percentage for its administration costs, as is the case with forestry permits. Financial benefits could also be distributed through the establishment of trust funds, such as a fund for community-based environmental conservation projects.

The distribution of non-financial benefits will vary depending on the types of benefits negotiated. DEC would have an important monitoring role in this process to ensure that the benefits of all kinds are shared and distributed in accordance with the benefit sharing agreement.

Recommendation 40:

Mechanisms for distributing benefits must be determined in a flexible and case-by-case manner, depending on what benefit sharing arrangements are agreed. However, the National Strategy should provide general guidance about how such distributions are made and DEC's monitoring role.

Drafting benefit sharing agreements

It is crucial that the benefit sharing arrangement is recorded in a written agreement and signed by the parties concerned (ie the researcher, government and village). This document must be prepared in both Samoan and English.

The Bonn Guidelines identify a range of issues that benefit sharing agreements should address. In light of this framework and issues arising out of the community consultations, benefit sharing agreements should include:

- reference to the **conditions of access** in the permit;
- recognition of **Samoa's sovereign rights**
- **scope of project** including type and quantity of genetic resources to be utilised and geographical area;
- **obligations of researchers**, including respect and preservation of traditional knowledge and practices, and a code of conduct to govern the process of the research;
- **obligations of villages and government**;
- **any limitations** on the use of material, particularly conditions for its transfer to third parties such as entry into similar benefit sharing agreements;
- **types of benefits** to be shared;
- **when** benefits are to be shared (including timeframe and identification of whether they are short term or long term);
- **how** benefits are to be distributed and shared (both short and long term) arising from genetic resources and any derivative products;
- treatment of **confidential information** (such as that involving traditional knowledge);
- whether and how the agreement can be **renegotiated** in the event of change of use (or other circumstances); and
- how the agreement is to be **enforced** in the event of non-compliance.

Recommendation 41:

Benefit sharing agreements should, at a minimum, contain provisions dealing with: conditions of access; sovereign rights; scope of the project; obligations of all parties concerned; any limitations on the use of material (such as third party transfers); types of benefits to be shared; how and when benefits are to be shared; confidential information; limitations of the agreement and renegotiation; and enforcement.

Legal drafting issues

The benefit sharing agreement makes the researcher's benefit sharing commitments legally enforceable. It is useful for lawyers drafting the agreement to have access to precedent agreements that may be used as a guide. The Bonn Guidelines include a comprehensive list of provisions that could be included in a benefit sharing (or material transfer) agreement (see [Appendix 11](#)).

In terms of who should draft the agreement, it is useful to develop a core of expertise. Agreements should be drafted initially by the Attorney General's Office who may maintain a database of precedent agreements for reference purposes. The WIPO is also developing a database of precedent benefit sharing agreements that should be monitored and drawn upon as appropriate.

Recommendation 39:

- (a) A core of expertise should be developed for drafting benefit sharing agreements. As a starting point, this should be done by the Attorney General's Office.
- (b) When drafting benefit sharing agreements, regard should be had to precedent agreements contained in the Bonn Guidelines and those maintained by the World Intellectual Property Organisation in a public database.

Accountability, monitoring and enforcement

To ensure the effectiveness of any access and benefit sharing process, it is essential to have measures to promote and facilitate accountability, monitoring and enforcement. This can be achieved partly through reporting and disclosure requirements to promote accountability for all parties involved in the process. In addition to disclosure of information before a permit is issued, the researcher could be required to provide regular reports to DEC. The time interval for these reports should be dependant on the length of the project, but at a minimum of monthly.

Monitoring of the access permits and benefit sharing agreements should include examination of the research's compliance with the permit. Monitoring should also include examination of the project to check its compliance with the legal regime as a whole, including the researcher's Code of Conduct. This monitoring should be undertaken by DEC officials and by Quarantine officials at the export stage (see further above). Monitoring may also be facilitated by including a question on the visitor arrival form (used by immigration officers) asking whether persons intend to undertake research about genetic resources and traditional knowledge during their stay in Samoa.

DEC officials may be assisted in their responsibilities by village representatives such as the *Pulenuu* and *matai* who may accompany the researcher in his or her work. At the village level, youth trainees could also assist the researcher (as part of technical transfer activities) in addition to monitoring compliance with the permit.

Enforcement of the scheme may happen in the following ways:

1. suspension of revocation of the access permit for non-compliance with its terms and conditions;
2. a breach of the benefit sharing agreement, which would be resolved using appropriate dispute resolution mechanisms at the village and/or government level; and
3. criminal offences.

Undertaking research without an appropriate permit would be a criminal offence, with a commensurate penalty. While breach of a benefit sharing arrangement may be dealt with under civil law, it may be appropriate to make wilful or other serious breaches of these agreements a criminal offence.

Recommendation 40:

- (a) Monitoring and enforcement provisions should be included in any access and benefit sharing scheme. This could include regular reporting requirements and monitoring of the conduct of research for compliance with the law and with the agreement.
- (b) Enforcement provisions should cover breaches of the access permit, benefit sharing agreement and criminal offences for circumventing the access and benefit sharing regime.
- (c) DEC has the central role in monitoring and enforcing the scheme. This should be supported by quarantine, immigration and village activities.

Record keeping

Written documentation is required at all stages of the process to support its implementation, from the application for an access permit to the decision about access, the process of deciding benefit sharing and ongoing monitoring of the benefit sharing process.

Adequate record keeping will be required to support monitoring and accountability. Records are also vital to enforcement, particularly if a criminal prosecution is to be brought. Appropriate records will also allow evaluation of the scheme to assess its success or otherwise.

Keeping good records will also assist DEC to build up a picture of Samoa's genetic resources and traditional knowledge that is useful for their conservation. Regard should be had to the relationship between the access and benefit sharing regime and the database for the CBD clearing house mechanism, to maximise the synergies between the two areas.

Recommendation 41:

DEC should keep adequate written records about all stages of the access and benefit sharing process in order to facilitate monitoring and enforcement of the scheme.

Supporting documentation

Documentation associated with the scheme must be available in both Samoan and English to ensure that all stakeholders understand the process. This includes:

- Printed permits;
- National policy documents;
- Legislation;
- Information kits; and
- Educational resource materials (for use in workshops and school programmes)

It should be freely available to Samoan stakeholders and to potential research applicants. Making this information available on a website would facilitate access and also promote transparency and accountability.

Recommendation 42:

A range of documents, including information kits and educational resources materials, containing information about the scheme should be freely available in both English and Samoan. These should be available in hard copy and on the internet.

Legislative framework

The access and benefit sharing process needs to be given legal authority through legislation. This should take the form of a stand alone Act which is preferable to regulations, for reasons of transparency, accountability and accessibility (as outlined in Report Part B).

Legal authority to issue permits, and details about this process, should be included in the legislation. A framework for the benefit sharing agreement should be set in the legislation, but details of each benefit sharing process are to be detailed in a benefit sharing agreement. In this way, the legislation contains legally enforceable rights concerning benefit sharing, the details of which are spelt out in agreements. This model is similar to that utilised in intellectual property matters such as patents and copyright. In those situations, rights to control patented and copyright-protected material are established in legislation; permission for others to use those rights, and the benefits associated with it, are contained in royalty or licence agreements.

Recommendation 43:

The access and benefit sharing process should be given legal authority through the enactment of a stand alone Act.

Public awareness and education

Successful implementation of this scheme also requires a campaign to raise public awareness and educate stakeholders. The campaign is also an important tool in encouraging support for the scheme. It should include information about the National Strategy and the practical process of access and benefit sharing which may be

contained in various forms such as an information kit, media campaigns and training workshops.

Community organisations have an important role to play in the context of awareness raising activities, both in their design and implementation. Their involvement will be important to the success of any awareness campaign.

When designing an awareness raising program, four main stakeholder groups should be targeted:

1. Samoan village communities;
2. Samoan government and other stakeholders;
3. Bioprospectors or researchers; and
4. Regional and international stakeholders.

The campaign should be characterised by targeted information that is appropriate to each group in order to maximise their understanding. The awareness raising campaign will take different forms for each group as appropriate. It may be undertaken using various mediums including workshops, information kits, brochures, media advertisements (television, radio, newspapers) and internet websites.

Samoan community

Aim: To raise awareness and build understanding and support for the access and benefit sharing scheme within the Samoan community.

Outcomes: Full participation and sense of ownership by the Samoan community in the scheme.
Increased awareness of scheme to enable communities to identify when researchers coming to their villages should have a permit (enforcement role).

Methods: Workshops facilitated by Pulenuu and MNRE. These should utilise practical examples of access and benefit sharing to assist with the enforcement role.
Media campaigns on television, radio and newspapers.
Educational material for use in schools.
Target all social sectors of the community including alii ma faipule, men, women, youth and children.

Samoan government and other stakeholders

Aim: To raise awareness and build understanding and support for the access and benefit sharing scheme within the government and with other stakeholders.

Outcomes: Full participation by Samoan government agencies and other stakeholders (eg NGOs) in the scheme. It is important to include tertiary educational institutions such as NUS as they are often the first point of contact for overseas-based bioprospectors.

Methods: Workshops facilitated by MNRE.
Media campaigns on television, radio and newspapers.
Information kits and brochures.
Website.

Overseas researchers

Aim: To raise awareness and promote compliance with the access and benefit sharing scheme for users of the scheme such as researchers.

Outcomes: Full participation by researchers in the access and benefit sharing scheme.

Methods: Information kits and brochures.
Website to include information about the scheme, policies and legislation underpinning it, application forms and fee schedule.
Question included in immigration form completed at airport.

International and regional bodies

Aim: To raise awareness of the access and benefit sharing scheme with regional and international bodies (including donors) that are relevant to the area.

Outcomes: Awareness of Samoa's regime and use of it as a best-practice example in international and regional policy development.
Development of partnerships to further support future work in the area.

Methods: Written submissions to the CBD Secretariat, WIPO IGC, SPREP and the WTO highlighting the Samoan scheme.
Internet Website.

Recommendation 44:

An awareness-raising campaign should be put in place to promote the scheme with the Samoan community, Samoan government, overseas-based researchers and regional and international bodies. The campaign should include practical, appropriate and targeted information to increase people's understanding of the scheme.

Coordination of traditional knowledge issues

Throughout the course of this project, it has been demonstrated that "traditional knowledge" is understood and used in a very broad range of contexts including the environment, agriculture, culture, intellectual property protection, trade and foreign relations.

Participants at the community consultation workshops identified that in the Samoan context, "traditional knowledge" encompasses a broad range of issues including knowledge of: *fa'a Samoa* and traditional ways of managing affairs of village, family

and church; the environment and agricultural practices; traditional medicine; and handicrafts, weaving and other uses of traditional materials.

While the CBD contemplates traditional knowledge as it relates to genetic resources, supporting material prepared by the CBD Secretariat acknowledges the broad nature of traditional knowledge as it relates to matters such as traditional healing techniques and medicines; farming and fishing techniques; and handicrafts. At the international level, many bodies are examining the issue of traditional knowledge (see further in Report Part B) in a range of contexts including the environment (CBD), agriculture (FAO), intellectual property (WIPO and WTO) and trade (WTO).

This diversity is also reflected in activities across the Samoan public sector that address issues of traditional knowledge in various departments. However, there is very little coordination or communication about these activities. A key difficulty has been a lack of one government agency taking the lead in ownership of the issues.

For Samoa to properly manage, preserve and harness the potential for its traditional knowledge, these issues must be coordinated across government. This coordination may be achieved through consideration of the issue by the **Cabinet Development Committee**. The National Committee should make 6 monthly progress reports to the Cabinet Development Committee and provide information about:

- the uptake of the access and benefit sharing scheme;
- an overview of current applications;
- updates on monitoring of earlier benefit sharing agreements;
- involvement in regional and international developments; and
- related issues that have arisen in other Ministerial portfolios and related organisations (such as the National University of Samoa).

Coordination of these issues through the Cabinet Development Committee will seek to ensure that policy developments in the areas of traditional knowledge and access to genetic resources are coordinated across government and promote Samoa's social and economic development.

The public awareness campaign (outlined above) will also assist in the coordination of traditional knowledge-related issues across government.

Recommendation 45:

- (a) In order to better coordinate traditional knowledge issues across government, the Cabinet Development Committee should consider 6 monthly reports (prepared by the National Committee with input from other agencies) about the access and benefit sharing scheme.
- (b) This coordination will seek to ensure that policy developments in the areas of traditional knowledge and access to genetic resources are considered, coordinated and promote Samoa's social and economic development.

Regional and international developments

As identified in Report Part B, a number of regional and international bodies are addressing issues about traditional knowledge and access and benefit sharing. It is vital that Samoa continues to be involved in the work of such bodies as the Secretariat of the Pacific Community (in its development of Model Laws for traditional knowledge and access and benefit sharing), SPREP, WIPO, the FAO and the WTO (in its implementation of the TRIPS Agreement as Samoa seeks to become a WTO member).

The Cabinet Development Committee's consideration of these issues should provide an avenue for coordination of inputs and reporting on this regional and international work.

Recommendation 46:

- (a) Samoa should continue to participate, and monitor developments, in international initiatives concerning traditional knowledge and access to genetic resources. This is particularly important in terms of Samoa's strategic positioning internationally, particularly in the context of Samoa's accession to the World Trade Organisation.
- (b) Relevant Government departments should coordinate these activities with other agencies with overlapping responsibilities in the area.

Recommendation 47:

Future policy development must be aware of, and not run contrary to, the various international developments in relation to protection of traditional knowledge and access to genetic resources.

Future activities

Through the course of this project, some activities have been identified that are related issues, but beyond the scope of this project. They are, however, issues that could be explored in future work including:

- A comprehensive assessment of the scope and value of Samoa's genetic resources (including its endemic species) in order to assess the potential scope for use, management and benefits;
- Investigation of possible long term arrangements for community based biodiversity conservation and development projects. These could involve Samoan communities, local research institutions (such as NUS and USP) and foreign research institutions. An example of such a project is that undertaken by the Strathclyde Institute for Drug Research, the University of the South Pacific and Verata Community in Fiji.

- The issue of *ex situ* collections collected before and after the Convention on Biological Diversity entered into force (see further above).

DEVELOPMENT AND IMPLEMENTATION OF THE NATIONAL STRATEGY

The process of developing and implementing the National Strategy will be vital to its success. It should be managed within the Division of Environment and Conservation, however, some elements will require external assistance.

Steering Committee

A Steering Committee should be established within DEC to oversee the development and implementation of the National Strategy to ensure that the DEC has ownership and control of the process. Members of the Steering Committee may be drawn from existing staff.

However, given existing staff levels and responsibilities, extra human and financial resources will be required for the specific development and implementation tasks. These may be undertaken by internal and external positions (as outlined further below).

At least one internal staff member is required to work on the National Strategy on a full time basis. Additional office resources will be required such as a:

- Computer dedicated to the access and benefit sharing regime;
- Desk, chair and phone;
- Filing cabinet (for maintenance of the records system);

Once the scheme is established, the following will be required for monitoring and enforcement:

- Recording equipment such as a digital camera to record details of projects; and
- Access to a vehicle (for monitoring in-the-field).

The MNRE is currently undergoing an Institutional Strengthening Project (ISP). The development and implementation of the National Strategy can be conducted in association with ISP activities to maximise the synergies of the two projects.

Recommendation 48:

- (a) A Steering Committee within DEC should be tasked to oversee the development and implementation of the National Strategy. This will require extra human, financial and physical resources.
- (b) The development of the National Strategy should also be coordinated with the MNRE's legislative review and Institutional Strengthening Project.

In order to manage the implementation of the national strategy, the recommendations of this action plan should be prioritised into four main areas:

1. policy development;
2. legal framework;
3. public awareness; and
4. implementation and ongoing monitoring.

These areas will be implemented over a 12 month period, with the public awareness activities, implementation and ongoing monitoring continuing after initial implementation. The process, and indicative timeframes, can be summarised as follows:

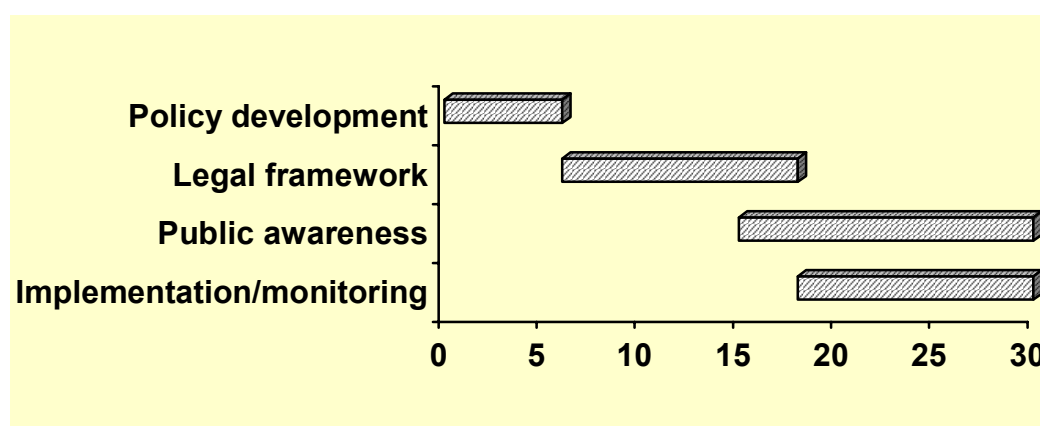


Figure 5: Indicative person weeks for implementation of recommendations

Policy development

Aim: Develop the policy underlying the National Strategy, based on the recommendations contained in this report

Outputs: Policy agreed and ready for submission to Cabinet for approval

Methods: External facilitator to develop a Discussion Paper
Half day workshops and interviews with key stakeholders conducted by external facilitator with assistance from internal staff
DEC has a facilitative role in this respect to ensure appropriate stakeholder involvement and ownership of the policy.

Indicative timeframes:

<i>Stage of process</i>	<i>Indicative person weeks</i>
Prepare 1 st draft of discussion paper	1 week
Consultation with government departments	1 week
Consultation with NGOs	1 week
Consultation with community	1 week
Finalisation of discussion paper	2 weeks
TOTAL	6 weeks

Legal framework

Aim: Develop the legislation to provide the legal framework implementing the National Strategy and supporting the access and benefit sharing regime

Outputs: Policy and drafting instructions approved by Cabinet
Legislation drafted, introduced into and enacted by Parliament
Supporting regulations drafted and promulgated

Methods: Internal staff, with assistance from external facilitator, to prepare cabinet submission and drafting instructions
External facilitator to develop legislation (both Act and any supporting regulations)

Indicative timeframes:

<i>Stage of process</i>	<i>Indicative person weeks</i>
Prepare cabinet submission and drafting instructions	1 week
Cabinet's approval of submission	2 month period
Preparation of draft legislation	6 weeks
Approval and settling of legislation text	4 weeks over a 6 month period
Introduction and passage through parliament	unknown
TOTAL	minimum of 12 weeks over an 8 month period

Public awareness

Aim: Develop public awareness campaign

Outputs: Development of public awareness strategy and supporting materials
Implementation of public awareness campaigns for various target groups

Methods: Internal staff, with assistance from external facilitators and NGOs, to prepare public awareness material
Consultation with village communities and government

Indicative timeframes:

<i>Stage of process</i>	<i>Indicative person weeks</i>
Develop public awareness material ready to launch once legislation is passed	12 weeks over 12 month period
Implementation of public awareness strategy	Ongoing
TOTAL	minimum 12 weeks over 12 months

Implementation and ongoing monitoring

- Aim: Implement and monitor the access and benefit sharing regime
- Outputs: Establishment of procedures under access and benefit regime
Use of regime by researchers
Monitoring of regime
- Methods: Internal staff (dedicated officer) to undertake implementation and ongoing monitoring

Recommendation 49:

The recommendations of this action plan should be prioritised into the areas of policy development, legal framework, public awareness and implementation and ongoing monitoring. Implementation of the action plan should be undertaken by a combination of internal and external staff over a period of 12 months.

Review

Given the recent changes in departmental responsibilities and alignments, development of the National Strategy will need to be mindful of changing responsibilities and restructuring. It would be appropriate to review and assess the progress of implementation no later than 12 months after it is finalised in order to ensure that the appropriate government stakeholders are involved.

Recommendation 50:

The implementation of the National Strategy should be reviewed no later than 12 months after it is finalised in order to ensure the participation of appropriate government stakeholders.

CONSOLIDATED RECOMMENDATIONS

Recommendation 1:

Recognising the real and potential value of traditional knowledge and genetic resources, Government, in partnership with villages, should introduce a system to regulate access to genetic resources and benefit sharing.

Recommendation 2:

- (a) A permit process for access and benefit sharing should utilise a decision-making model that accommodates the role of both village governance and central governance.
- (b) The chosen model should be discussed with both village and central government stakeholders to ensure that both parties approve the model. Care should be taken to ensure that the model does not undermine *matai* authority.

Recommendation 3:

- (a) A permit process for access and benefit sharing should involve both villages and central government as partners in the decision-making process.
- (b) Clear guidelines should be established (either in policy or legislation) about how consultation with stakeholders, including individuals and government departments, should be undertaken.

Recommendation 4:

A permit process for access and benefit sharing should require researchers to provide a range of information relating to identity, type and purpose of research, environmental impact, duration, geographical site and possible benefits.

Recommendation 5:

- (a) A permit process for access and benefit sharing should include monitoring and enforcement provisions to be undertaken at both the village and government levels. The progress of research projects should be measured against conditions in the permit and any agreement concerning the conduct of the research and benefit sharing.
- (b) Village-level monitoring should be undertaken by the *alii ma faipule*, or *pulenuu*, and other representatives (such as a young person, student or lawyer).
- (c) Government has a role in assisting village-level monitoring and enforcement through provision of training and technical support.
- (d) Government enforcement should include criminal offences for breaches of permits and means to enforce benefit sharing agreements.

Recommendation 6:

- (a) An access and benefit sharing regime must be accompanied by a public awareness campaign (including an information kit) to ensure that all village and government stakeholders and users of the scheme are aware of the relevant legal framework and policies.

- (b) The public awareness campaign should identify appropriate strategies to maximise coverage of the issues through various media (such as television, radio, seminars and brochures) and to target understanding in government, village communities and amongst users of the regime.

Recommendation 7:

- (a) Benefit sharing arrangements should contemplate both financial and non-financial benefits.
- (b) The permit system should be accompanied by agreements between researchers and Samoans with detailed provisions about the benefits to be shared.
- (c) Benefit sharing arrangements should extend to third parties who may acquire the results of the research. These third parties should be required to honour benefit undertakings with Samoa, as a condition of receiving the research results.

Recommendation 8:

- (a) Villages and central government should work together as partners in the benefit sharing process, both when making decisions about benefits and in the actual sharing of benefits.
- (b) Discussion of benefit sharing at the village level should be undertaken in accordance with *fa'a Samoa*.
- (c) The monitoring and review of benefit sharing arrangements should be conducted by village and government representatives.
- (d) Communication between village and government on these issues should be facilitated through a committee process.

Recommendation 9:

Disputes about the access and benefit sharing process should be dealt with using appropriate dispute resolution mechanisms. This may be at a central government or village level, whichever is appropriate in the context.

Recommendation 10:

The *Conditions for Access to and Benefit Sharing of Samoa's Biodiversity Resources* should be reviewed in light of the outcomes of this project.

Recommendation 11:

- (a) Future legislative provisions dealing with access and benefit sharing should take the form of a stand alone Act, to emphasise the importance of these issues to Samoa and to facilitate access to the legislation.
- (b) Such legislation and related policy should be made available on the internet so that it is readily accessible, particularly for foreign researchers.

Recommendation 12:

The future development of access and benefit sharing policy should be mindful of both the positive and negative results of the Samoan experience with the mamala plant and the Botanical Inventory.

Recommendation 13:

- (a) There should be greater communication and coordination between the various Government departments and other institutions that are undertaking projects and policy development in the areas of traditional knowledge and access to genetic resources.
- (b) These departments and related institutions should be included as stakeholders in future developments of access and benefit sharing issues.

Recommendation 14:

Future access and benefit sharing regimes should be consistent with Samoa's obligations under the CBD.

Recommendation 15:

When implementing an access and benefit sharing regime, Samoa should have regard to the *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization* as a useful tool to assist with the implementation of its obligations under the CBD.

Recommendation 16:

- (a) Samoa should continue to participate, and monitor developments, in international and regional initiatives concerning traditional knowledge and access to genetic resources.
- (b) Relevant Government departments should coordinate these activities with other agencies with overlapping responsibilities in the area.

Recommendation 17:

- (a) Samoa should continue to participate, and monitor developments, in international initiatives concerning traditional knowledge and access to genetic resources. This is particularly important in terms of Samoa's strategic positioning internationally, particularly in the context of Samoa's accession to the World Trade Organisation.
- (b) Relevant Government departments should coordinate these activities with other agencies with overlapping responsibilities in the area.

Recommendation 18:

Future policy development must be aware of, and not run contrary to, the various international developments in relation to protection of traditional knowledge and access to genetic resources

Recommendation 19:

A decision making model for access and benefit sharing should be implemented that encompasses a partnership between village and government. This process should be

managed through a government focal point and a National Access and Benefit Sharing Committee.

Recommendation 20:

- (a) A focal point should be established in the Ministry of Natural Resources and Environment (MNRE) to coordinate and facilitate the access and benefit sharing process. The Division of Environment and Conservation in MNRE will require extra resources to undertake this role.
- (b) The access and benefit sharing scheme should supersede research permit processes in other Ministries so that applicants cannot “play the system”.

Recommendation 21:

A National Access and Benefit Sharing Committee should be established to provide an avenue for decision-making and monitoring in relation to the access and benefit sharing process.

Recommendation 22:

Membership of the National Committee should consist of the Minister for Natural Resources and Environment, CEO of the Ministry of Natural Resources and Environment, CEO of the Ministry for Women, Community and Social Development, 2 co-opted members representing the village where the research is proposed to be undertaken (eg Pulenuu and Matai representative) and other co-opted members to provide technical advice as necessary.

Recommendation 23:

The National Committee would make decisions on a consensus basis between government and village decision-makers.

Recommendation 24:

Consultation with stakeholders, including the community and NGOs, should be undertaken through a period of public consultation advertised through public notices in newspapers and on radio. This consultation should be facilitated by the DEC focal point.

Recommendation 25:

A National Access and Benefit Sharing Strategy should be established to govern the operation of the access and benefit sharing regime. The Strategy should address issues such as: the scheme’s scope; rights roles and responsibilities of participants; detailed procedures for the scheme; public awareness activities; legal framework; and regional and international developments.

Recommendation 26:

When developing the National Strategy, regard must be had the scheme’s scope including the following issues:

- (a) the scheme should apply equally to non-Samoans and Samoans;
- (b) fees should be able to be reduced or waived for non-profit research;
- (c) the scheme should be flexible to accommodate different stakeholders where research is to be conducted on government or private owned land;

- (d) the scheme should apply to all research that concerns genetic resources, consistent with the CBD; and
- (e) the scheme should apply to derivatives and synthetic derivatives based on genetic resources.

Recommendation 27:

Future work should be conducted on the issue of *ex situ* collections of genetic resources collected both before and after the commencement of the CBD. This should include consideration of arrangements relating to regional germplasm collections and the FAO International Treaty on Plant Genetic Resources.

Recommendation 28:

The National Strategy should specify the roles and responsibilities of government, villages and users (ie researchers) of the scheme. These roles and responsibilities should also be set out in the National Committee's guidelines for operation and in a Code of Conduct for Researchers. The scheme as a whole should be conducted in a transparent and accountable way.

Recommendation 29:

The conduct of the access process should be characterised by:

- (a) A transparent and readily accessible process;
- (b) Reasonable costs;
- (c) Reasonable timeframes, for example, a decision on access should be made within 20 working days after the application is made; and
- (d) Written record-keeping.

Recommendation 30:

An application for an access permit should be accompanied by sufficient information to enable decision makers to make an informed decision. At a minimum, this should include information about: the applicant's personal details; description of the research; geographical area of research; environmental impact; research method; intended use of research including involvement by third parties; possible research and development; possible benefits; local partners; and budget.

Recommendation 31:

DEC should support and facilitate the decision-making role of the National Committee. This may include: verification of a researcher's personal details; making arrangements for public consultation; preparing information about the applications for the Committee to ensure that any decision to grant access is based on informed consent; and checking that the proposal meets the legal framework.

Recommendation 32:

- (a) Decisions to refuse an access permit should be notified to the applicant accompanied by a short statement of reasons.
- (b) Decisions to grant an access permit should be notified to the applicant accompanied by a written permit that includes any limitations, such as specific acts that are authorised or any conditions attached to the permit including limits on geographical area, duration or sample size. The permit should also

include reference to the benefit sharing arrangements. It should be signed by the Minister (or his delegate) and the relevant *Pulenuu(s)*.

Recommendation 33:

- (a) The National Strategy should provide guidance on conditions or limitations on access permits dealing with issues such as geographical area; time duration; and sample size.
- (b) In relation to sample size, flexible guidelines should be put in place to limit sample sizes to appropriate levels. This should be determined in consultation with the Ministry of Agriculture and other technical advisers.

Recommendation 34:

Benefit sharing should be guided by principles of: legal certainty and simplicity; minimum transaction costs; efficient and timely negotiation of agreements; addressing obligations of all involved including ethical issues; ensuring continued customary uses; considering possible intellectual property rights and promotion of conservation and sustainable use of biodiversity.

Recommendation 35:

Benefits should be shared fairly and equitable with all those stakeholders who have contributed to the access process, whether in terms of resource management, scientific or commercial skills. This could include local communities, government, academic institutions and other NGOs, determined on a case-by-case basis.

Recommendation 36:

- (a) DEC should facilitate the negotiation of benefit sharing arrangements, including providing advice on appropriate benefits on a case-by-case basis.
- (b) The negotiation process may include legal advisers for government and villages.

Recommendation 37:

- (a) The National Strategy should include an indicative list of benefits (both financial and non-financial) that may be included in a benefit sharing agreement. This should be available to the National Committee and to applicants.
- (b) A benefit sharing arrangement should have regard to both short to medium term benefits and long term benefits.
- (c) Once settled, the benefit sharing arrangements should be clearly identified in the agreement, including expected timeframes for delivery of benefits.

Recommendation 38:

- (a) Benefit sharing arrangements must take account of the possible transfer of information and genetic material to third parties. In such situations, arrangements must be in place so that Samoa still benefits from the use of the information and genetic material.

- (b) MNRE staff should continue to participate in and monitor the deliberations of international forums about these issues.

Recommendation 39:

Quarantine export requirements should include a requirement to demonstrate that export samples are consistent with any access permits, particularly in terms of sample size. Such a requirement could be incorporated in the current revision of quarantine laws.

Recommendation 40:

Mechanisms for distributing benefits must be determined in a flexible and case-by-case manner, depending on what benefit sharing arrangements are agreed. However, the National Strategy should provide general guidance about how such distributions are made and DEC's monitoring role.

Recommendation 41:

DEC should keep adequate written records about all stages of the access and benefit sharing process in order to facilitate monitoring and enforcement of the scheme.

Recommendation 42:

A range of documents, including information kits and educational resources materials, containing information about the scheme should be freely available in both English and Samoan. These should be available in hard copy and on the internet.

Recommendation 43:

The access and benefit sharing process should be given legal authority through the enactment of a stand alone Act.

Recommendation 44:

An awareness-raising campaign should be put in place to promote the scheme with the Samoan community, Samoan government, overseas-based researchers and regional and international bodies. The campaign should include practical, appropriate and targeted information to increase people's understanding of the scheme.

Recommendation 45:

- (a) In order to better coordinate traditional knowledge issues across government, the Cabinet Development Committee should consider 6 monthly reports (prepared by the National Committee with input from other agencies) about the access and benefit sharing scheme.
- (b) This coordination will seek to ensure that policy developments in the areas of traditional knowledge and access to genetic resources are considered, coordinated and promote Samoa's social and economic development.

Recommendation 46:

- (a) Samoa should continue to participate, and monitor developments, in international initiatives concerning traditional knowledge and access to genetic resources. This is particularly important in terms of Samoa's strategic positioning internationally, particularly in the context of Samoa's accession to the World Trade Organisation.

- (b) Relevant Government departments should coordinate these activities with other agencies with overlapping responsibilities in the area.

Recommendation 47:

Future policy development must be aware of, and not run contrary to, the various international developments in relation to protection of traditional knowledge and access to genetic resources.

Recommendation 48:

- (a) A Steering Committee within DEC should be tasked to oversee the development and implementation of the National Strategy. This will require extra human, financial and physical resources.

- (b) The development of the National Strategy should also be coordinated with the MNRE's legislative review and Institutional Strengthening Project.

Recommendation 49:

The recommendations of this action plan should be prioritised into the areas of policy development, legal framework, public awareness and implementation and ongoing monitoring. Implementation of the action plan should be undertaken by a combination of internal and external staff over a period of 12 months.

Recommendation 50:

The implementation of the National Strategy should be reviewed no later than 12 months after it is finalised in order to ensure the participation of appropriate government stakeholders.

GLOSSARY OF SAMOAN TERMS

Alii ma faipule	Matai council. Village council of chiefs and orators
fa'a Samoa	The Samoan way of life
Fale	Traditional house
Komiti Siosiomaga	Environment committee
Komiti Tumama	Women's health committee
Matai	Chiefly title holder and head of family
Pulenuu	Village mayors
Tatau	Tattoo
Taulasea	Healers

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Case Studies on the Role of Intellectual Property in the Sharing of Benefits Arising from the Use of Biological Resources and Associated Traditional Knowledge (Produced jointly by WIPO and the United Nations Environment Programme (UNEP))	http://www.wipo.int/globalissues/publications/index.html
Food and Agriculture Organisation	www.fao.org
South Pacific Environmental Program	www.sprep.ws
Genetic Resources Action International	www.grain.org
Foundation for International Environmental Law	www.field.org.uk
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WTO TRIPS Council	http://www.wto.org/english/tratop_e/trips_e/trips_e.htm

APPENDICES

Appendix 1	Flow chart (non-graphics A4 version, English)
Appendix 2	List of stakeholders interviewed
Appendix 3	Questionnaire given to participants at workshops (English version)
Appendix 4	Information to accompany invitations (English version)
Appendix 5	Focus group questions for workshops (English version)
Appendix 6	Supplementary questions for focus group facilitators (English version)
Appendix 7	Press release provided to MNRE (English version)
Appendix 8	Material to accompany media campaign (English version)
Appendix 9	MNRE Policy: <i>Conditions for Access to and Benefit Sharing of Samoa's Biodiversity Resources</i>
Appendix 10	Application form used under current MNRE policy
Appendix 11	<i>Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization</i>

***Appendix 1: Flowchart: Process of Access and Benefit Sharing
[non-graphics a4 version]***

1. Researcher seeks **permission** to take samples of plants/animals and talk with people about traditional knowledge
2. **Discussions** about how the research will be done and benefits for Samoa. It is decided that the research will be allowed.
3. Written **agreement** about how the research will be done and how benefits of the research will be shared with Samoa.
4. Researcher takes **samples** of plants/animals and talks with people about traditional knowledge
5. Samoans receive **benefits** (short term) eg access fees, working with researchers. Monitoring to make sure researchers keep to agreement.
6. Researchers **take samples** of plants/animals out of Samoa for further testing.

Appendix 2: Stakeholders Interviewed

Mr Tony Lawson
Parliamentary Counsel
Attorney General's Office

Ms Margaret Fruean
Assistant Secretary, Registries
Ministry of Labour, Commerce and
Industry
(formerly Justice Department)

Mr Sam Sesega
Biodiversity Officer
South Pacific Regional Environmental
Programme

Ms Kerry Kwan
Principal Legal Officer
Ministry of Agriculture

Ms Easter Chu Shing-Galuvao
Programme Officer (Environment)
United Nations Development
Programme

Mr Mose Fulu
Assistant Secretary, Culture
Ministry of Education, Youth and
Culture
(formerly Ministry of Youth, Sports
and Culture)

Ms Sue Miller
IUCN Project Manager
Aleipata and Safata Marine Protected
Area Project
Ministry of Natural Resources and
Environment

Afamasaga Sami Lemalu
Assistant CEO
Forestry Division
Ministry of Agriculture

Asuao Kirifi Pouono
Assistant CEO
Quarantine Division
Ministry of Agriculture

Fata Ueli Kapeteni
Assistant Secretary
Ministry of the Prime Minister

Lau Dr Asofou So'o
Head, Institute of Samoan Studies
National University of Samoa

Moananu Tyrone Laurenson
Registrar
National University of Samoa

So'oalo Albert Peters
Assistant CEO
Crops Division
Ministry of Agriculture

Ms Laisene Samuelu
Principal Horticultural Development
Officer
Crops Division
Ministry of Agriculture

Appendix 4: Information to accompany invitations (English version)

Consultations on protection of traditional knowledge and access to genetic resources

Conserving, protecting and benefiting from traditional knowledge and genetic resources is important for Samoans. The Department of Lands, Surveys and Environment is currently looking at these issues as part of Samoa's environment program to preserve our unique and valuable natural resources. The Division of Environment and Conservation is holding workshops to seek the views of the community about how best to protect and benefit from our traditional knowledge and genetic resources.

Traditional knowledge and genetic resources are often the source of information that leads to developments such as new medicines or improved plant breeds. It is important that Samoans can conserve and benefit from uses of their traditional resources and that these can contribute to our social and economic development.

Genetic resources or genes are the microscopic building blocks of life that make different plants and animals unique. Scientists are studying genetic resources to look for new genes with useful properties that can be used to breed new varieties of plants (such as blight-resistant taro) or animals (such as pigs that are more resistant to disease).

Scientists are increasingly interested in the unique genetic resources found in Pacific islands. They are studying the genetic resources of plants and animals as well as the traditional knowledge associated with their use. This could be knowledge about traditional medicines, uses of plants and fishing and farming techniques.

As a country with rich biodiversity and a large number of native species, Samoa is a plentiful source of genetic material. It is important for Samoa to conserve its resources and have a say in how those resources are used. Samoans should also benefit from commercial uses of our plants and animals.

Products developed from traditional knowledge and genetic resources have considerable value. For example, crops developed and improved by traditional farmers are estimated to be worth US\$15 billion annually to the international seed industry. The worldwide sales of pharmaceutical drugs that are based on traditional medicines is estimated to be worth US\$32 billion each year.

Around the world, developing countries are looking at how to control access to their traditional knowledge and ensure that they share in the benefits of any developments based on this knowledge. Samoa has its own example of an arrangement to achieve this. In 2001, the Samoan Government and the AIDS Research Alliance reached a landmark agreement to investigate the use of the mamala plant for a possible cure for AIDS, following work in Falealupo. If the mamala is effective in treating AIDS, royalties from any drugs developed will be shared with Samoa, the village of Falealupo and the families of two taulasea who used mamala.

Appendix 5: Focus group questions for workshops (English version)

QUESTIONS FOR WORKSHOP FOCUS GROUPS

Access – prior informed consent

1. Who should decide whether the bioprospector can use the plants and animals and their genetic resources?
2. What information is needed from the bioprospector before these people can decide on the access?
3. Who should make sure that the law and agreement is being complied with?
4. What role could your organisation have in the process of approving access for such projects?

Benefit sharing – agreements to share benefits

1. What benefits should be part of the agreements between Samoans and bioprospectors?
2. How should the benefits be shared with communities, traditional knowledge holders and other Samoans?
3. How can we make sure that the community is aware of the scheme?
4. What role could your organisation have in the process of approving access for such projects?

**Appendix 6: Supplementary questions for focus
group facilitators (English version)**

**DISCUSSION ISSUES FOR CONSULTATIONS
FURTHER QUESTIONS FOR FOCUS GROUP FACILITATORS**

1. ACCESS – PRIOR INFORMED CONSENT

(For discussion by **matai** group)

Context:

A bioprospector or researcher comes to your village and wants to take samples of plants or animals. The bioprospector also wants to talk to people in the village about traditional knowledge of those plants and animals. The Environment Department also comes to the village to talk with the matai about another bioprospector who has talked to the Department about coming to the village. How should the village allow the bioprospectors to access the village, talk to people and take samples?

1. Who should decide whether the bioprospector can use the plants and animals and their genetic resources?
 - Who owns the plants or animals? Who owns the genetic resources of the plants or animals?
 - Who owns the traditional knowledge connected with the resources?
 - Should the traditional knowledge holder decide (eg taulasea)?
 - Should the owner of the land (or sea) where the plant or animal is found decide? (eg community, government, individual)?
 - Should the government decide?

2. How should that decision be made? How should communities, traditional knowledge holders and government be involved in the decision?
 - Should the government be a national focal point to receive applications from bioprospectors, coordinate consent/decisions from communities and individuals and liaise with other people (eg government departments, NGOs)?
 - Should bioprospectors get consent separately from government and from individual communities or should this be done together?
 - Is there a need to have expert help available to explain projects and their consequences?
 - If there is a process where government consults with communities about these issues, how should that be done? Through a committee? Should there be input from other people?
 - Should there be set timeframes for the decision-making process? (eg it is important to give applicants an answer and not take too long)
 - What if this process takes too long and researchers go elsewhere, so there are no benefits for Samoa?

2. What information is needed from the bioprospector before these people can decide on, or consent to, the access?
 - Who the bioprospectors are and where they are from (eg university, private company)
 - Purpose of the research (eg looking for cure for cancer), expected results and budget
 - Timeframe and location for research
 - Impact of research on the environment (ie on target and non-target species)
 - Whether the bioprospector is seeking to rely on traditional knowledge
 - How the material is to be used and by whom (eg collection, research, commercialisation)
 - Local bodies or institutions that could be part of the project
 - Limits on transfers of material to other people (eg other universities, companies)
 - Types of benefits that could come from the project
 - Treatment of confidential information

4. Who should oversee what is happening and make sure that the law and agreement is being complied with?
 - What role do pulenuus and the government have in making sure that the bioprospector is keeping to the agreement?
 - Should there be restrictions on certain types of research
 - Should there be a code of conduct for bioprospectors?

5. How can we make sure that the community is aware of the scheme?
 - Media campaign (TV, radio)
 - Posters or pamphlets
 - Program in schools
 - Other

2. BENEFIT SHARING – AGREEMENTS TO SHARE BENEFITS

(For discussion by **women's committee** and **youth** representatives)

Context:

A bioprospector or researcher comes to your village. It has been agreed that the bioprospector is allowed to come to the village, take samples and talk to people about their traditional knowledge. It is now time to make an agreement with the bioprospector about how they will undertake their research in the village and how they will share the benefits of that research. What should be agreed with the bioprospector about sharing the benefits?

1. What things should be part of the agreements between Samoans and bioprospectors? What sort of benefits should be included in the agreements?

- What should be the conditions of access? (eg limit access to certain areas, times, methods etc as stated in information about access provided by bioprospectors, restrict size of samples that can be taken)
- What should be the benefits, both monetary and non-monetary? It is important to have a broad range of benefits, both non-cash and cash.
- Should some of these benefits be made compulsory (eg through legislation)?

Examples of short to medium term benefits:

- Cash eg to collectors of plants, to taulasea, to villages
- Samples of the plants and animals collected to be deposited with Samoan national institutions eg NUS
- Cooperation between researchers and community (eg doctors with scientific team could assist with some medical treatment)
- Training and participation of Samoan researchers in the project (eg Samoan scientists to be involved in collection and analysis of information)
- Transfer of technology eg donate equipment used to NUS/Polytech, undertake to do some testing of plants etc in Samoa
- Fund development projects in community eg environment conservation programs, new community facilities

Long term benefits

- Shares of profits from the use of the resources. Eg royalties from patent on drugs developed and licenced (can specify minimum % royalty). Based on milestone payments (specified stages) as things progress.
- Opportunities for Samoans to work or study with overseas organisations that are developing new industrial products from the samples collected.
- Joint ownership of future intellectual property rights (eg patents)
- Requirement that further samples should only be got from Samoa

2. How should the benefits be shared with communities, traditional knowledge holders and other Samoans? What role should communities and government have in the process of sharing the benefits?

- (the CBD says that the benefits must be shared fairly and equitably)
- Should there be a government focal point for bioprospectors to contact first when they want to come to Samoa? How should the government consult with communities when considering applications from bioprospectors?
- What should be the role of the government agency that receives applications and fees? Where should the fees go? Should the government distribute the fees and have a role in monitoring the arrangements?
- How can the benefits be made consistent with national economic and social development goals?
- Non-financial benefits – who makes sure that these are carried out?
- Financial benefits – should they be put in a trust fund (eg for conservation or community work?); should funds be directed to specific projects or agencies?

- Should a mandatory amount of the benefits be put into conservation programs (to conserve Samoa's biodiversity) run either by government or by communities?
 - What if this process takes too long and researchers go elsewhere, so there are no benefits for Samoa?
3. What processes are needed to help communities, traditional knowledge holders and government to negotiate these agreements?
- Who should oversee what is happening and make sure that the law and agreement is being complied with?
 - Who should oversee things while the bioprospectors are in the country?
 - Who should oversee things after they have left and as they develop products overseas eg medical drugs
 - Should there be requirements that the researchers have to report their progress to Samoa?
 - Should researchers have to pay money upfront as a security bond (ie to ensure they comply with the scheme). Should this be refunded when the researchers meet certain elements of the benefit sharing agreement?
4. How can we make sure that the community is aware of the scheme?
- Media campaign (TV, radio)
 - Posters or pamphlets
 - Program in schools
 - Awareness campaign with other government departments who may come into contact with these issues eg agriculture & fisheries, customs, quarantine, justice
5. How should disputes about the agreements be resolved?
- Mediation or arbitration
 - Litigation in court
 - How about when bioprospectors go back overseas – do we enlist the help of NGOs to take international action, public shaming?

Appendix 7: Press release provided to MNRE (English version)

Traditional Knowledge Protection Being Considered

Conserving, protecting and benefiting from traditional knowledge and genetic resources are important issues for all Samoans. The Department of Lands, Surveys and Environment is currently looking at these issues as part of Samoa's environment program to preserve our unique and valuable natural resources.

“Traditional knowledge and genetic resources are often the source of information that leads to developments in agriculture and medicine. It is important that Samoans can conserve and benefit from uses of their traditional resources” said Faumuina Pati Liu, Assistant Director Environment, Division of Environment and Conservation.

Products developed from traditional knowledge and genetic resources have considerable value. For example, crops developed and improved by traditional farmers are estimated to be worth US\$15 billion annually to the international seed industry. The worldwide sales of pharmaceutical drugs that are based on traditional medicines is estimated to be worth US\$32 billion each year (source: ETC Group).

“Scientists are increasingly interested in genetic resources and associated traditional knowledge, particularly from plants and animals found in developing countries in the tropics. As a country with rich biodiversity and a large number of native species, Samoa is a plentiful source of genetic material. It is therefore vital for Samoa to conserve and benefit from its own resources” Faumuina said.

“The Division of Environment and Conservation will be holding workshops in Savai'i and Upolu in February to seek the views of the community about how best to protect and benefit from our traditional knowledge and genetic resources. We are aiming to speak to a broad range of people about these important issues” Faumuina said.

Around the world, developing countries are looking at how to control access to their traditional knowledge and ensure that they share in the benefits of any developments based on this knowledge. Samoa has its own example of an arrangement to achieve this. In 2001, the Samoan Government and the AIDS Research Alliance reached a landmark agreement to investigate the use of the mamala plant for a possible cure for AIDS, following work in Falealupo. If the mamala is effective in treating AIDS, royalties from any drugs developed will be shared with Samoa, the village of Falealupo and the families of two taulasea who used mamala.

“Traditional knowledge” includes a range of subjects such as: traditional healing techniques and medicines; farming and fishing techniques; and handicrafts. Traditional knowledge is often associated with genetic resources or genetic material, which are the building blocks of life for plants and animals.

For further information, contact Faumuina Pati Liu, Assistant Director Environment, Division of Environment & Conservation on tel 25670 or 23358.

Appendix 8: Material to accompany media campaign (English version)

What is the Convention on Biological Diversity?

The Convention on Biological Diversity is an international agreement about environmental issues. It specifically deals with biodiversity or “the web of life”. This refers to the range of life on Earth and the variety of all plants and animals. Biodiversity also includes all the different ecosystems that occur across the planet, such as forests, mountains, deserts, wetlands and rivers.

Samoa, along with 13 other Pacific island nations, is a member of the Convention on Biological Diversity (or “CBD”). In total, over 180 countries around the world are members of the CBD.

The CBD was agreed to by world leaders at the Rio Earth Summit in June 1992. It seeks to encourage sustainable development – that is, development that meets our needs while leaving a healthy environment for future generations. The Convention has three main themes:

1. **conservation** of biodiversity;
2. **sustainable use** of biodiversity; and
3. fair and equitable **sharing of the benefits** from the use of **genetic resources**.

The Convention also states that countries must respect, preserve and maintain traditional knowledge and practices.

What are genetic resources?

All plants and animals are made up of genes. Genes, chromosomes and DNA are the microscopic “building blocks of life”. They contain information that determines the uniqueness of each individual plant and animal and each species.

“Biodiversity” describes how many different plant and animal genes are found in a particular country – the more biodiversity, the more genes. Pacific islands have a high biodiversity (ie a large range of genes) and many of our plants and animals are found on only one or two islands. The uniqueness of these biological resources makes them valuable. Scientists are increasingly studying genetic resources to look for new compounds that could have a commercial or industrial use, such as medicines or new plant breeds.

What is “access to genetic resources” about?

Before the Convention on Biological Diversity (or “CBD”), genetic resources were widely thought to be freely available to everyone, despite their great value. Often foreign researchers, or “bioprospectors”, would collect plant and animal genetic resources without permission or sharing the benefits from any discoveries made. For example, the Aymara people of Bolivia, South America, shared their knowledge about the quinine-rich plants they used to treat malaria. However, they received no benefits from the subsequent development of quinine as an anti-malaria drug.

The CBD took a radically different approach and began with the idea that individual countries have rights over their genetic resources and they can determine how those resources are accessed. The CBD recognises that access to valuable biological resources should be undertaken on “mutually agreed terms” and with the “prior informed consent” of the country where the biological resources come from. This is also known as “access and benefit sharing”.

The CBD also emphasises the importance of traditional knowledge. Traditional knowledge is often practical and concerns things such as traditional healing techniques, medicines, farming and fishing techniques and handicrafts. It is often associated with genetic resources in the form of knowledge about how to use special qualities of plants or animals.

Countries have agreed that traditional knowledge should only be used with the approval and involvement of the communities who own the knowledge. The benefits that arise from use of traditional knowledge should also be shared with those communities.

How does “access and benefit sharing” happen?

In practice, access and benefit sharing issues arise when scientists or bioprospectors research our plant and animal life. Those plants and animals may be associated with traditional knowledge about their use as medicines, knowledge about to grow the plants or how to catch and use different marine species. This information could be of great value to a scientist who is seeking to develop their research into an industrial product such as a medicine, new crop variety or chemical compound.

Samoans can control how bioprospectors access these plants and animals and benefit from their use. When an animal or plant is developed into an industrial product, Samoa has the right to benefit. These benefits can be in many different forms such as upfront payments, support for community projects, research funding and study opportunities for Samoans, training of Samoan researchers, transfer of technology and shares of profits from the use of the resources.

**Appendix 9: MNRE Policy: Conditions for Access to and Benefit Sharing of
Samoa's Biodiversity Resources**

Please address all
correspondence to the
Director of the Department of
Lands, Surveys & Environment



GOVERNMENT OF SAMOA

Private Bag, Apia, Samoa
Tel (685) 22481
(685) 22488
Fax (685) 23176

DEPARTMENT OF LANDS, SURVEYS & ENVIRONMENT

23/03/2000

**CONDITIONS FOR ACCESS TO AND BENEFIT SHARING OF SAMOA'S
BIODIVERSITY RESOURCES**

Prior informed consent

- 1 Proponent to apply to the Director of Lands Surveys and Environment for consent to investigate biodiversity resources. Use application form obtained from the DLSE. DEC. to provide all the necessary information to ensure an informed determination of application,
- 2 Consent fee of \$500 to be paid with application. This is refundable, less 25% for processing costs, if application is unsuccessful,
- 3 Determination of application to take up to 20 working days.
- 4 Consent, if approved, to be valid for 12 months.

Sampling

- 5 Sample fee for collection or recollection to be \$300 plus VAGST per sample (all except taxes to go to owners of lands where the samples are collected from),
- 6 Consent from relevant land owners to be obtained by DLSE,
- 7 DEC staff to monitor sampling process and verify collection details. All costs plus VAGST to be met by proponent.
- 8 Only dried samples can be exported.
- 9 Size of samples to be 100 grams for plant material or 1 gram for extract,

Reporting

- 10 A register of all samples to be kept at the DEC, the proponent to provide all necessary information to complete records;
- 11 Proponent to submit report on status and/or analysis of samples every 6 months,
- 12 Ownership of samples to remain with the Government of Samoa;

Benefit sharing

Subject to mutually agreed terms:

- 13 Relevant traditional knowledge and practice to be acknowledged and considered in any subsequent benefit sharing; and
- 14 Minimum royalty to be 2%


Tu'u'u I Taule'alo
Director

Appendix 10: Application form used under current MNRE policy

**DEPARTMENT OF
LANDS, SURVEYS
AND ENVIRONMENT
Division of Environment & Conservation**

**CONSENT APPLICATION
FOR BIODIVERSITY COLLECTION
AND PROSPECTING**

*Samoa as a party to the
Convention on Biological Diversity (CBD)
has complete sovereign rights over its biological diversity resources*

For Official Use Only:		
Date Application was received:		
date	month	year
_____	_____	_____
Full Payments made: Yes No		
Receipt No.		
DLSE official stamp:		

APPLICANT: (Please type in all required information)

Name:

Institution:

Nationality:

Country of domicile:

Passport number:

Current Address:

Samoa address:

Phone Number:

Permanent Address:

Fax Number:

E-Mail Address:

2. PURPOSE OF COLLECTION

2.1 What is the purpose of the collection?

2.2 What tests will be carried out the material to be collected and what is the purpose of each test?

2.3 How will the information be collected (e.g. by reference books, note taking, photographs, recordings (tape recorder or video camera) etc)

3. FUNDING

3.1 How is the collection supported and by whom?

3.2 Provide details of budget (breakdown)

4. POTENTIAL IMPACTS

4.1 Describe the potential impacts of the activity. Include:

- biological impacts on species
- ecological impacts on habitats
- impact on human health
- any environmental monitoring or management plans that may need to be established

4.2 Describe the nature of any expected research and development plans

5. DETAILS OF WHAT IS TO BE COLLECTED

5.1 List the species and name the parts of the organism to be collected
(use additional paper if need more space and attach to form)

5.2 List any other material to be collected (soil symbionts, etc.)

6. COLLECTION

6.1 Persons to be involved in the collection

Name	Address	Qualifications

6.2 Proposed area(s) and dates of collection (if known)

6.3 Specify expected number or quantity of material to be collected (if known)

6.4 Describe how collection will be physically performed

6.5 Prepare a list of the in-country entities likely to benefit from the activity

6.6 To what degree will reliance be made on traditional knowledge?

Signature of Applicant:

Application approved by:

Date:

DIRECTOR

Date:

Appendix 11: Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization

I. GENERAL PROVISIONS

A. Key features

1. These Guidelines may serve as inputs when developing and drafting legislative, administrative or policy measures on access and benefit-sharing with particular reference to provisions under Articles 8(j), 10 (c), 15, 16 and 19; and contracts and other arrangements under mutually agreed terms for access and benefit-sharing.
2. Nothing in these Guidelines shall be construed as changing the rights and obligations of Parties under the Convention on Biological Diversity.
3. Nothing in these Guidelines is intended to substitute for relevant national legislation.
4. Nothing in these Guidelines should be interpreted to affect the sovereign rights of States over their natural resources;
5. Nothing in these Guidelines, including the use of terms such as “provider”, “user”, and “stakeholder”, should be interpreted to assign any rights over genetic resources beyond those provided in accordance with the Convention;
6. Nothing in these Guidelines should be interpreted as affecting the rights and obligations relating to genetic resources arising out of the mutually agreed terms under which the resources were obtained from the country of origin.
7. The present Guidelines are voluntary and were prepared with a view to ensuring their:
 - a. Voluntary nature: they are intended to guide both users and providers of genetic resources on a voluntary basis;
 - b. Ease of use: to maximize their utility and to accommodate a range of applications, the Guidelines are simple;
 - c. Practicality: the elements contained in the guidelines are practical and are aimed at reducing transaction costs;
 - d. Acceptability: the Guidelines are intended to gain the support of users and providers;
 - e. Complementarity: the Guidelines and other international instruments are mutually supportive;
 - f. Evolutionary approach: the Guidelines are intended to be reviewed and accordingly revised and improved as experience is gained in access and benefit-sharing;
 - g. Flexibility: to be useful across a range of sectors, users and national circumstances and jurisdictions, guidelines should be flexible;
 - h. Transparency: they are intended to promote transparency in the negotiation and implementation of access and benefit-sharing arrangements.

B. Use of terms

8. The terms as defined in Article 2 of the Convention shall apply to these Guidelines. These include: biological diversity, biological resources, biotechnology, country of origin of genetic resources, country providing genetic resources, *ex situ* conservation, *in situ* conservation, genetic material, genetic resources, and *in situ* conditions.

C. Scope

9. All genetic resources and associated traditional knowledge, innovations and practices covered by the Convention on Biological Diversity and benefits arising from the commercial and other utilization of such resources should be covered by the guidelines, with the exclusion of human genetic resources.

D. Relationship with relevant international regimes

10. The guidelines should be applied in a manner that is coherent and mutually supportive of the work of relevant international agreements and institutions. The guidelines are without prejudice to the access and benefit-sharing provisions of the FAO International Treaty for Plant Genetic Resources for Food and Agriculture. Furthermore, the work of the World Intellectual Property Organization (WIPO) on issues of relevance to access and benefit-sharing should be taken into account. The application of the guidelines should also take into account existing regional legislation and agreements on access and benefit-sharing.

E. Objectives

11. The objectives of the Guidelines are the following:
 - a. To contribute to the conservation and sustainable use of biological diversity;
 - b. To provide Parties and stakeholders with a transparent framework to facilitate access to genetic resources and ensure fair and equitable sharing of benefits;
 - c. To provide guidance to Parties in the development of access and benefit-sharing regimes;
 - d. To inform the practices and approaches of stakeholders (users and providers) in access and benefit-sharing arrangements;
 - e. To provide capacity-building to guarantee the effective negotiation and implementation of access and benefit-sharing arrangements, especially to developing countries, in particular least developed countries and small island developing States among them;
 - f. To promote awareness on implementation of relevant provisions of the Convention on Biological Diversity;
 - g. To promote the adequate and effective transfer of appropriate technology to providing Parties, especially developing countries, in particular least developed countries and small island developing States among them, stakeholders and indigenous and local communities;

- h. To promote the provision of necessary financial resources to providing countries that are developing countries, in particular least developed countries and small island developing States among them, or countries with economies in transition with a view to contributing to the achievement of the objectives mentioned above;
 - i. To strengthen the clearing-house mechanism as a mechanism for cooperation among Parties in access and benefit-sharing;
 - j. To contribute to the development by Parties of mechanisms and access and benefit-sharing regimes that recognize the protection of traditional knowledge, innovations and practices of indigenous and local communities, in accordance with domestic laws and relevant international instruments;
 - k. To contribute to poverty alleviation and be supportive to the realization of human food security, health and cultural integrity, especially in developing countries, in particular least developed countries and small island developing States among them;
 - l. Taxonomic research, as specified in the Global Taxonomy Initiative, should not be prevented, and providers should facilitate acquisition of material for systematic use and users should make available all information associated with the specimens thus obtained.
12. The Guidelines are intended to assist Parties in developing an overall access and benefit-sharing strategy, which may be part of their national biodiversity strategy and action plan, and in identifying the steps involved in the process of obtaining access to genetic resources and sharing benefits.

II. ROLES AND RESPONSIBILITIES IN ACCESS AND BENEFIT-SHARING PURSUANT TO ARTICLE 15 OF THE CONVENTION ON BIOLOGICAL DIVERSITY

A. National focal point

13. Each Party should designate one national focal point for access and benefit-sharing and make such information available through the clearing-house mechanism. The national focal point should inform applicants for access to genetic resources on procedures for acquiring prior informed consent and mutually agreed terms, including benefit-sharing, and on competent national authorities, relevant indigenous and local communities and relevant stakeholders, through the clearing-house mechanism.

B. Competent national authority(ies)

14. Competent national authorities, where they are established, may, in accordance with applicable national legislative, administrative or policy measures, be responsible for granting access and be responsible for advising on:
- a. The negotiating process;
 - b. Requirements for obtaining prior informed consent and entering into mutually agreed terms;
 - c. Monitoring and evaluation of access and benefit-sharing agreements;
 - d. Implementation/enforcement of access and benefit-sharing agreements;

- e. Processing of applications and approval of agreements;
 - f. The conservation and sustainable use of the genetic resources accessed;
 - g. Mechanisms for the effective participation of different stakeholders, as appropriate for the different steps in the process of access and benefit-sharing, in particular, indigenous and local communities;
 - h. Mechanisms for the effective participation of indigenous and local communities while promoting the objective of having decisions and processes available in a language understandable to relevant indigenous and local communities.
15. The competent national authority(ies) that have the legal power to grant prior informed consent may delegate this power to other entities, as appropriate.

C. Responsibilities

16. Recognizing that Parties and stakeholders may be both users and providers, the following balanced list of roles and responsibilities provides key elements to be acted upon:
- a. Contracting Parties which are countries of origin of genetic resources, or other Parties which have acquired the genetic resources in accordance with the Convention, should:
 - i. Be encouraged to review their policy, administrative and legislative measures to ensure they are fully complying with Article 15 of the Convention;
 - ii. Be encouraged to report on access applications through the clearing-house mechanism and other reporting channels of the Convention;
 - iii. Seek to ensure that the commercialization and any other use of genetic resources should not prevent traditional use of genetic resources;
 - iv. Ensure that they fulfil their roles and responsibilities in a clear, objective and transparent manner;
 - v. Ensure that all stakeholders take into consideration the environmental consequences of the access activities;
 - vi. Establish mechanisms to ensure that their decisions are made available to relevant indigenous and local communities and relevant stakeholders, particularly indigenous and local communities;
 - vii. Support measures, as appropriate, to enhance indigenous and local communities' capacity to represent their interests fully at negotiations;
 - b. In the implementation of mutually agreed terms, users should:
 - i. Seek informed consent prior to access to genetic resources, in conformity with Article 15, paragraph 5, of the Convention;
 - ii. Respect customs, traditions, values and customary practices of indigenous and local communities,
 - iii. Respond to requests for information from indigenous and local communities;

- iv. Only use genetic resources for purposes consistent with the terms and conditions under which they were acquired;
 - v. Ensure that uses of genetic resources for purposes other than those for which they were acquired, only take place after new prior informed consent and mutually agreed terms are given;
 - vi. Maintain all relevant data regarding the genetic resources, especially documentary evidence of the prior informed consent and information concerning the origin and the use of genetic resources and the benefits arising from such use;
 - vii. As much as possible endeavour to carry out their use of the genetic resources in, and with the participation of, the providing country;
 - viii. When supplying genetic resources to third parties, honour any terms and conditions regarding the acquired material. They should provide this third party with relevant data on their acquisition, including prior informed consent and conditions of use and record and maintain data on their supply to third parties. Special terms and conditions should be established under mutually agreed terms to facilitate taxonomic research for non-commercial purposes;
 - ix. Ensure the fair and equitable sharing of benefits, including technology transfer to providing countries, pursuant to Article 16 of the Convention arising from the commercialization or other use of genetic resources, in conformity with the mutually agreed terms they established with the indigenous and local communities or stakeholders involved;
- c. Providers should:
- i. Only supply genetic resources and/or traditional knowledge when they are entitled to do so;
 - ii. Strive to avoid imposition of arbitrary restrictions on access to genetic resources.
- d. Contracting Parties with users of genetic resources under their jurisdiction should take appropriate legal, administrative, or policy measures, as appropriate, to support compliance with prior informed consent of the Contracting Party providing such resources and mutually agreed terms on which access was granted. These countries could consider, *inter alia*, the following measures:
- i. Mechanisms to provide information to potential users on their obligations regarding access to genetic resources;
 - ii. Measures to encourage the disclosure of the country of origin of the genetic resources and of the origin of traditional knowledge, innovations and practices of indigenous and local communities in applications for intellectual property rights;
 - iii. Measures aimed at preventing the use of genetic resources obtained without the prior informed consent of the Contracting Party providing such resources;
 - iv. Cooperation between Contracting Parties to address alleged infringements of access and benefit-sharing agreements;

- v. Voluntary certification schemes for institutions abiding by rules on access and benefit-sharing;
- vi. Measures discouraging unfair trade practices;
- vii. Other measures that encourage users to comply with provisions under subparagraph 16 (b) above.

III. PARTICIPATION OF STAKEHOLDERS

17. Involvement of relevant stakeholders is essential to ensure the adequate development and implementation of access and benefit-sharing arrangements. However, due to the diversity of stakeholders and their diverging interests, their appropriate involvement can only be determined on a case-by-case basis.
18. Relevant stakeholders should be consulted and their views taken into consideration in each step of the process, including:
 - a. When determining access, negotiating and implementing mutually agreed terms, and in the sharing of benefits;
 - b. In the development of a national strategy, policies or regimes on access and benefit-sharing.
19. To facilitate the involvement of relevant stakeholders, including indigenous and local communities, appropriate consultative arrangements, such as national consultative committees, comprising relevant stakeholder representatives, should be made.
20. The involvement of relevant stakeholders should be promoted by:
 - a. Providing information, especially regarding scientific and legal advice, in order for them to be able to participate effectively;
 - b. Providing support for capacity-building, in order for them to be actively engaged in various stages of access and benefit-sharing arrangements, such as in the development and implementation of mutually agreed terms and contractual arrangements.
21. The stakeholders involved in access to genetic resources and benefit-sharing may wish to seek the support of a mediator or facilitator when negotiating mutually agreed terms.

IV. STEPS IN THE ACCESS AND BENEFIT-SHARING PROCESS

A. Overall strategy

22. Access and benefit-sharing systems should be based on an overall access and benefit-sharing strategy at the country or regional level. This access and benefit-sharing strategy should aim at the conservation and sustainable use of biological diversity, and may be part of a national biodiversity strategy and action plan and promote the equitable sharing of benefits.

B. Identification of steps

23. The steps involved in the process of obtaining access to genetic resources and sharing of benefits may include activities prior to access, research and development conducted on the genetic resources, as well as their commercialisation and other uses, including benefit-sharing.

C. Prior informed consent

24. As provided for in Article 15 of the Convention on Biological Diversity, which recognizes the sovereign rights of States over their natural resources, each Contracting Party to the Convention shall endeavour to create conditions to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties and fair and equitable sharing of benefits arising from such uses. In accordance with Article 15, paragraph 5, of the Convention on Biological Diversity, access to genetic resources shall be subject to prior informed consent of the contracting Party providing such resources, unless otherwise determined by that Party.
25. Against this background, the Guidelines are intended to assist Parties in the establishment of a system of prior informed consent, in accordance with Article 15, paragraph 5, of the Convention.

1. Basic principles of a prior informed consent system

26. The basic principles of a prior informed consent system should include:
- a. Legal certainty and clarity;
 - b. Access to genetic resources should be facilitated at minimum cost;
 - c. Restrictions on access to genetic resources should be transparent, based on legal grounds, and not run counter to the objectives of the Convention;
 - d. Consent of the relevant competent national authority(ies) in the provider country. The consent of relevant stakeholders, such as indigenous and local communities, as appropriate to the circumstances and subject to domestic law, should also be obtained.

2. Elements of a prior informed consent system

27. Elements of a prior informed consent system may include:
- a. Competent authority(ies) granting or providing for evidence of prior informed consent;
 - b. Timing and deadlines;
 - c. Specification of use;
 - d. Procedures for obtaining prior informed consent;
 - e. Mechanism for consultation of relevant stakeholders;
 - f. Process.

Competent authority(ies) granting prior informed consent

28. Prior informed consent for access to in situ genetic resources shall be obtained from the Contracting Party providing such resources, through its competent national authority(ies), unless otherwise determined by that Party.
29. In accordance with national legislation, prior informed consent may be required from different levels of Government. Requirements for obtaining prior informed consent (national/provincial/local) in the provider country should therefore be specified.
30. National procedures should facilitate the involvement of all relevant stakeholders from the community to the government level, aiming at simplicity and clarity.
31. Respecting established legal rights of indigenous and local communities associated with the genetic resources being accessed or where traditional knowledge associated with these genetic resources is being accessed, the prior informed consent of indigenous and local communities and the approval and involvement of the holders of traditional knowledge, innovations and practices should be obtained, in accordance with their traditional practices, national access policies and subject to domestic laws.
32. For *ex situ* collections, prior informed consent should be obtained from the competent national authority(ies) and/or the body governing the *ex situ* collection concerned as appropriate.

Timing and deadlines

33. Prior informed consent is to be sought adequately in advance to be meaningful both for those seeking and for those granting access. Decisions on applications for access to genetic resources should also be taken within a reasonable period of time.

Specification of use

34. Prior informed consent should be based on the specific uses for which consent has been granted. While prior informed consent may be granted initially for specific use(s), any change of use including transfer to third parties may require a new application for prior informed consent. Permitted uses should be clearly stipulated and further prior informed consent for changes or unforeseen uses should be required. Specific needs of taxonomic and systematic research as specified by the Global Taxonomy Initiative should be taken into consideration.
35. Prior informed consent is linked to the requirement of mutually agreed terms.

Procedures for obtaining prior informed consent

36. An application for access could require the following information to be provided, in order for the competent authority to determine whether or not access to a

genetic resource should be granted. This list is indicative and should be adapted to national circumstances:

- a. Legal entity and affiliation of the applicant and/or collector and contact person when the applicant is an institution;
 - b. Type and quantity of genetic resources to which access is sought;
 - c. Starting date and duration of the activity;
 - d. Geographical prospecting area;
 - e. Evaluation of how the access activity may impact on conservation and sustainable use of biodiversity, to determine the relative costs and benefits of granting access;
 - f. Accurate information regarding intended use (e.g.: taxonomy, collection, research, commercialization);
 - g. Identification of where the research and development will take place;
 - h. Information on how the research and development is to be carried out;
 - i. Identification of local bodies for collaboration in research and development;
 - j. Possible third party involvement;
 - k. Purpose of the collection, research and expected results;
 - l. Kinds/types of benefits that could come from obtaining access to the resource, including benefits from derivatives and products arising from the commercial and other utilization of the genetic resource;
 - m. Indication of benefit-sharing arrangements;
 - n. Budget;
 - o. Treatment of confidential information.
37. Permission to access genetic resources does not necessarily imply permission to use associated knowledge and vice versa.

Process

38. Applications for access to genetic resources through prior informed consent and decisions by the competent authority(ies) to grant access to genetic resources or not shall be documented in written form.
39. The competent authority could grant access by issuing a permit or licence or following other appropriate procedures. A national registration system could be used to record the issuance of all permits or licences, on the basis of duly completed application forms.
40. The procedures for obtaining an access permit/licence should be transparent and accessible by any interested party.

D. Mutually agreed terms

41. In accordance with Article 15, paragraph 7, of the Convention on Biological Diversity, each Contracting Party shall “take legislative, administrative or policy measures, as appropriate (...) with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilization of genetic resources with the Contracting Party

providing such resources. Such sharing shall be upon mutually agreed terms". Thus, guidelines should assist Parties and stakeholders in the development of mutually agreed terms to ensure the fair and equitable sharing of benefits.

1. Basic requirements for mutually agreed terms

42. The following principles or basic requirements could be considered for the development of mutually agreed terms:
 - a. Legal certainty and clarity;
 - b. Minimization of transaction costs, by, for example:
 - i. Establishing and promoting awareness of the Government's and relevant stakeholders' requirements for prior informed consent and contractual arrangements;
 - ii. Ensuring awareness of existing mechanisms for applying for access, entering into arrangements and ensuring the sharing of benefits;
 - iii. Developing framework agreements, under which repeat access under expedited arrangements can be made;
 - iv. Developing standardized material transfer agreements and benefit-sharing arrangements for similar resources and similar uses (see appendix I for suggested elements of such an agreement);
 - c. Inclusion of provisions on user and provider obligations;
 - d. Development of different contractual arrangements for different resources and for different uses and development of model agreements;
 - e. Different uses may include, *inter alia*, taxonomy, collection, research, commercialization;
 - f. Mutually agreed terms should be negotiated efficiently and within a reasonable period of time;
 - g. Mutually agreed terms should be set out in a written agreement.
43. The following elements could be considered as guiding parameters in contractual agreements. These elements could also be considered as basic requirements for mutually agreed terms:
 - a. Regulating the use of resources in order to take into account ethical concerns of the particular Parties and stakeholders, in particular indigenous and local communities concerned;
 - b. Making provision to ensure the continued customary use of genetic resources and related knowledge;

- c. Provision for the use of intellectual property rights include joint research, obligation to implement rights on inventions obtained and to provide licences by common consent;
- d. The possibility of joint ownership of intellectual property rights according to the degree of contribution.

2. Indicative list of typical mutually agreed terms

44. The following provides an indicative list of typical mutually agreed terms:

- a. Type and quantity of genetic resources, and the geographical/ecological area of activity;
- b. Any limitations on the possible use of the material;
- c. Recognition of the sovereign rights of the country of origin;
- d. Capacity-building in various areas to be identified in the agreement;
- e. A clause on whether the terms of the agreement in certain circumstances (e.g. change of use) can be renegotiated;
- f. Whether the genetic resources can be transferred to third parties and conditions to be imposed in such cases, e.g. whether or not to pass genetic resources to third parties without ensuring that the third parties enter into similar agreements except for taxonomic and systematic research that is not related to commercialization;
- g. Whether the knowledge, innovations and practices of indigenous and local communities have been respected, preserved and maintained, and whether the customary use of biological resources in accordance with traditional practices has been protected and encouraged;
- h. Treatment of confidential information;
- i. Provisions regarding the sharing of benefits arising from the commercial and other utilization of genetic resources and their derivatives and products.

3. Benefit-sharing

45. Mutually agreed terms could cover the conditions, obligations, procedures, types, timing, distribution and mechanisms of benefits to be shared. These will vary depending on what is regarded as fair and equitable in light of the circumstances.

Types of benefits

46. Examples of monetary and non-monetary benefits are provided in appendix II to these Guidelines.

Timing of benefits

47. Near-term, medium-term and long-term benefits should be considered, including up-front payments, milestone payments and royalties. The time-frame of benefit-sharing should be definitely stipulated. Furthermore, the balance among near-term, medium-term and long-term benefit should be considered on a case-by-case basis.

Distribution of benefits

48. Pursuant to mutually agreed terms established following prior informed consent, benefits should be shared fairly and equitably with all those who have been identified as having contributed to the resource management, scientific and/or commercial process. The latter may include governmental, non-governmental or academic institutions and indigenous and local communities. Benefits should be directed in such a way as to promote conservation and sustainable use of biological diversity.

Mechanisms for benefit-sharing

49. Mechanisms for benefit-sharing may vary depending upon the type of benefits, the specific conditions in the country and the stakeholders involved. The benefit-sharing mechanism should be flexible as it should be determined by the partners involved in benefit-sharing and will vary on a case-by-case basis.
50. Mechanisms for sharing benefits should include full cooperation in scientific research and technology development, as well as those that derive from commercial products including trust funds, joint ventures and licences with preferential terms.

V. OTHER PROVISIONS

A. Incentives

51. The following incentive measures exemplify measures which could be used in the implementation of the guidelines:
- a. The identification and mitigation or removal of perverse incentives, that may act as obstacles for conservation and sustainable use of biological diversity through access and benefit-sharing, should be considered;
 - b. The use of well-designed economic and regulatory instruments, directly or indirectly related to access and benefit-sharing, should be considered to foster equitable and efficient allocation of benefits;
 - c. The use of valuation methods should be considered as a tool to inform users and providers involved in access and benefit-sharing;
 - d. The creation and use of markets should be considered as a way of efficiently achieving conservation and sustainable use of biological diversity.

B. Accountability in implementing access and benefit-sharing arrangements

52. Parties should endeavour to establish mechanisms to promote accountability by all stakeholders involved in access and benefit-sharing arrangements.
53. To promote accountability, Parties may consider establishing requirements regarding:

- a. Reporting; and
- b. Disclosure of information.

54. The individual collector or institution on whose behalf the collector is operating should, where appropriate, be responsible and accountable for the compliance of the collector.

C. National monitoring and reporting

55. Depending on the terms of access and benefit-sharing, national monitoring may include:
- a. Whether the use of genetic resources is in compliance with the terms of access and benefit-sharing;
 - b. Research and development process;
 - c. Applications for intellectual property rights relating to the material supplied.
56. The involvement of relevant stakeholders, in particular, indigenous and local communities, in the various stages of development and implementation of access and benefit-sharing arrangements can play an important role in facilitating the monitoring of compliance.

D. Means for verification

57. Voluntary verification mechanisms could be developed at the national level to ensure compliance with the access and benefit-sharing provisions of the Convention on Biological Diversity and national legal instruments of the country of origin providing the genetic resources.
58. A system of voluntary certification could serve as a means to verify the transparency of the process of access and benefit-sharing. Such a system could certify that the access and benefit-sharing provisions of the Convention on Biological Diversity have been complied with.

E. Settlement of disputes

59. As most obligations arising under mutually agreed arrangements will be between providers and users, disputes arising in these arrangements should be solved in accordance with the relevant contractual arrangements on access and benefit-sharing and the applicable law and practices.
60. In cases where the access and benefit-sharing agreements consistent with the Convention on Biological Diversity and national legal instruments of the country of origin of genetic resources have not been complied with, the use of sanctions could be considered, such as penalty fees set out in contractual agreements.

F. Remedies

61. Parties may take appropriate effective and proportionate measures for violations of national legislative, administrative or policy measures implementing the access

and benefit-sharing provisions of the Convention on Biological Diversity, including requirements related to prior informed consent and mutually agreed terms.

Appendix I

Suggested Elements for Material Transfer Agreements

Material transfer agreements may contain wording on the following elements:

A. Introductory provisions

1. Preambular reference to the Convention on Biological Diversity
2. Legal status of the provider and user of genetic resources
3. Mandate and/or general objectives of provider and, where appropriate, user of genetic resources

B. Access and benefit-sharing provisions

1. Description of genetic resources covered by the material transfer agreements, including accompanying information
2. Permitted uses, bearing in mind the potential uses, of the genetic resources, their products or derivatives under the material transfer agreement (e.g. research, breeding, commercialization)
3. Statement that any change of use would require new prior informed consent and material transfer agreement
4. Whether intellectual property rights may be sought and if so under what conditions
5. Terms of benefit-sharing arrangements, including commitment to share monetary and non-monetary benefits
6. No warranties guaranteed by provider on identity and/or quality of the provided material
7. Whether the genetic resources and/or accompanying information may be transferred to third parties and if so conditions that should apply
8. Definitions
9. Duty to minimize environmental impacts of collecting activities

C. Legal provisions

1. Obligation to comply with the material transfer agreement
2. Duration of agreement
3. Notice to terminate the agreement
4. Fact that the obligations in certain clauses survive the termination of the agreement
5. Independent enforceability of individual clauses in the agreement

6. Events limiting the liability of either party (such as act of God, fire, flood, etc.)
7. Dispute settlement arrangements
8. Assignment or transfer of rights
9. Assignment, transfer or exclusion of the right to claim any property rights, including intellectual property rights, over the genetic resources received through the material transfer agreement
10. Choice of law
11. Confidentiality clause
12. Guarantee

Appendix II

Monetary and Non- Monetary Benefits

1. Monetary benefits may include, but not be limited to:

- a. Access fees/fee per sample collected or otherwise acquired;
- b. Up-front payments;
- c. Milestone payments;
- d. Payment of royalties;
- e. Licence fees in case of commercialization;
- f. Special fees to be paid to trust funds supporting conservation and sustainable use of biodiversity;
- g. Salaries and preferential terms where mutually agreed;
- h. Research funding;
- i. Joint ventures;
- j. Joint ownership of relevant intellectual property rights.

2. Non-monetary benefits may include, but not be limited to:

- a. Sharing of research and development results;
- b. Collaboration, cooperation and contribution in scientific research and development programmes, particularly biotechnological research activities, where possible in the provider country;
- c. Participation in product development;
- d. Collaboration, cooperation and contribution in education and training;
- e. Admittance to *ex situ* facilities of genetic resources and to databases;
- f. Transfer to the provider of the genetic resources of knowledge and technology under fair and most favourable terms, including on concessional and preferential terms where agreed, in particular, knowledge and technology that make use of genetic resources, including biotechnology, or that are relevant to the conservation and sustainable utilization of biological diversity;
- g. Strengthening capacities for technology transfer to user developing country Parties and to Parties that are countries with economies in transition and

technology development in the country of origin that provides genetic resources. Also to facilitate abilities of indigenous and local communities to conserve and sustainably use their genetic resources;

- h. Institutional capacity-building;
- i. Human and material resources to strengthen the capacities for the administration and enforcement of access regulations;
- j. Training related to genetic resources with the full participation of providing Parties, and where possible, in such Parties;
- k. Access to scientific information relevant to conservation and sustainable use of biological diversity, including biological inventories and taxonomic studies;
- l. Contributions to the local economy;
- m. Research directed towards priority needs, such as health and food security, taking into account domestic uses of genetic resources in provider countries;
- n. Institutional and professional relationships that can arise from an access and benefit-sharing agreement and subsequent collaborative activities;
- o. Food and livelihood security benefits;
- p. Social recognition; and
- q. Joint ownership of relevant intellectual property rights.