



Pacific Islands FORESTS & TREES



Incorporating SPRIG, ACIAR -Pacific Forestry Update & PNG-ACIAR Forest Domestication Project

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From the Programme's Desk

Bula vinaka to you all. We have come to the end of 2002, an opportune time to thank all of you for your support and encouragement during the year. We are especially grateful to our project countries, donors, and collaborating partners for your support and assistance.

We wish you all a blessed Christmas and a happy start to the New Year 2003.

PROGRAMME ACTIVITIES

During the last quarter, the Programme continued implementing its work plan for 2002-2003, and within this, the following activities were undertaken.

Sandalwood Workshop

A regional workshop on sandalwood was organized by the Programme, with the support of CIRAD-Foret/IAC, SPRIG, CIFOR, SPC/GTZ-PGRFP and AusAID/ISSS, in Noumea, New Caledonia from 07-11 October 2002.

The workshop provided a forum for the participants to share information on sandalwood and to determine areas that needed further work to improve the conservation and management of sandalwood in Pacific Island Countries. A separate article on the workshop is included in this issue of the newsletter.

Bamboo Workshop

The Forests and Trees Programme co-sponsored with Fiji's national airline, Air Pacific, a 3-day bamboo cultivation and processing workshop which was organized jointly by the Bamboo Association of Fiji, Fiji Forestry Department and the Fiji Institute of Tech-

nology. The workshop was held in Suva, Fiji, and was attended by 33 participants, representing government departments, communities and NGOs. These also included a participant each from Tuvalu and Kiribati who were sponsored by the Programme.

In early 2000, the Programme organized a bamboo cultivation and processing workshop in Australia, which was attended by ten project countries. At the end of the workshop, participants were given planting materials of a number of selected commercially useful bamboo species to introduce in their countries. Reports received indicate that these bamboo plants, especially in Fiji and Kiribati, are performing very well.

Our support for this workshop was in line with our objective of supporting the promotion of these new species of bamboo and also to build up the capacity to cultivate, manage, and process the bamboo in our island countries.

Forest Certification Capacity Building Workshop

The Programme, along with the SPC/GTZ-PGRFP, organized a regional workshop on training of trainers and formation of national working groups on forest certification in Nadi, Fiji, from 28 October - 01 November 2002.

This was a follow-up to the one held earlier in the year, targeting the need for forest certification capacity to be built up in the region as a first step towards the formation of national working groups and ultimately the formulation and endorsement of national

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QUOTE

I have seen a wicked and ruthless man flourishing like a green tree in its native soil, but he soon passed away and was no more; so I looked for him, he could not be found.

Psalms 37: 35-36

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forest certification standards.

A separate article on the workshop is included in this issue of the newsletter.

Corporate Planning Support

The Programme provided some funding assistance to Fiji's Ministry of Fisheries and Forests to undertake a review of its draft corporate plan (2002-2005) during a two-day workshop, held from 6-7 December 2002.

The workshop was also attended by the Ministry of Finance and National Planning, and the Public Service Commission, two key government agencies, in terms of resource allocation within government.

In past HoF Meetings, the lack of resources has always been highlighted as the main reason for the unsatisfactory implementation of Forestry Department work plans in our island countries.

Through the above Fiji process, it is hoped that the two key agencies would become better informed about forestry, and would also be party to the outcomes of the corporate plan produced by the workshop. This should ensure that forestry submissions for new or extra resources for the implementation of its corporate plan are looked at positively by the Ministry of Finance and the Public Service Commission.

Sairusi Bulai
Advisor

◆ REGIONAL SANDALWOOD WORKSHOP

The Regional Workshop on Sandalwood Research, Development and Extension in the Pacific Islands and Asia was held at the SPC Conference Hall, in Noumea, New Caledonia from 7-11 October 2002.

A total of 36 participants attended the workshop from New Caledonia, Vanuatu, Tonga, Cook Islands, Fiji, French Polynesia, Wallis & Futuna,

PNG, Indonesia (West Timor), East Timor and Australia. The workshop was organized and sponsored by SPC Forests & Trees Programme, SPC/GTZ-PGRFP, SPRIG, AusAID/ISSS, CIRAD-Foret, IAC and CIFOR.



Director-General of SPC - Ms Lourdes Pangelinan, planting a sandalwood seedling as part of the workshop closing.

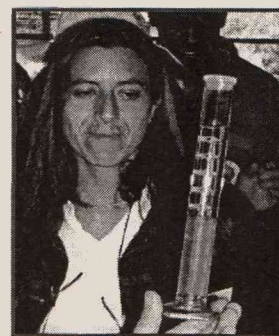
The objectives of the workshop were:

- i. To ascertain the current status of sandalwood research and development work being carried out by PIC's and territories and neighboring East Timor, and Indonesia (West Timor);
- ii. To discuss and share results of sandalwood activities undertaken by regional programmes and technical agencies;
- iii. Gather information on what is known, what we need to know, and how to develop a methodology to fill the knowledge gap and for implementation, and if found appropriate by the participants, develop a regional sandalwood programme to include appropriate research, development and extension in accordance with the workshop theme;
- iv. To strengthen and explore opportunities for collaboration among the organizations present.

The theme of the workshop was "Promoting and Advancing Sandalwood contribution in sustainable rural development in the Asia-Pacific region".

The first 3 days of the workshop involved presentation of country reports by participating countries, regional organizations and technical agencies on status of on-going activities being undertaken and the prospects for the future outlook and activities. A field visit to the island of Mare was organised on the 4th day to observe sandalwood activities and distillation of sandalwood oil. The 5th and last day was taken up with discussion of the final report and recommendations of the workshop.

In view of the fast-declining sandalwood resource in the Asia-Pacific region, there was general consensus that a lot needs to be done quickly by each island country in research, development, conservation and extension in order to secure future supply of the commodity.



Mare distillery - sandal oil naturally floats to the surface of water, as it is lighter

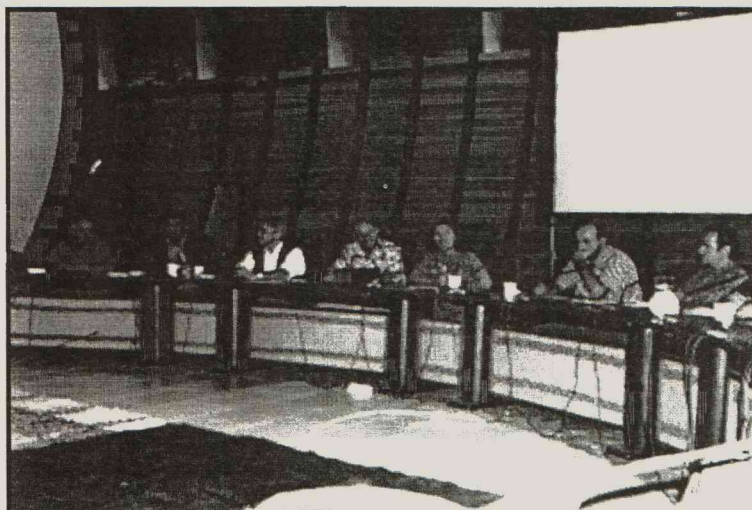


A large S.austrocaledonicum tree in Mare

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Some of the more important recommendations of the workshop included the development of regional sandalwood research and development programs, national inventories to determine resource base, regeneration using local populations, greater effort in conservation of endangered populations, and information sharing. As for these efforts, the SPC Forest & Trees Program will be the main coordinating agency in consultation with other relevant organizations.

Feedback from participants was very positive and many expressed satisfaction about the workshop. There was also a desire for another workshop on sandalwood in the next 3 – 5 years.



The SPC Director-General Ms Lourdes Pangelinan delivering her closing address at the SPC Conference Hall.

Submitted by:

*Ponijese B. Bulai
Department of Forestry
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Suva, FIJI*



Participants discussing at the IAC nursery in Mare



Pile of *S. austrocaledonicum* heartwoods ready for chipping and processing in the distillery at Mare.

◆ REGIONAL FOREST CERTIFICATION WORKSHOP

Forest Certification Workshop Training of Trainers and Setting Up of National Working Groups, was held at the Mocambo Hotel, Nadi, Fiji, from 28th October to the 01st of November, 2002.

Thirty five participants, representing Government Agriculture, Forestry, and Environment Departments, NGOs, Forest Industries, Universities, trade unions and resource owner representatives from Fiji, Papua New Guinea, Solomon Islands, Vanuatu, and Niue attended the workshop.

The workshop had two complementary sessions, the "Training of Trainers" from 28 – 30th October was opened by Fiji's Minister of Fisheries and Forests, Hon. Konisi Yabaki, followed by the "Formation of National Working Groups" from 31st October – 1st November, which was opened by the European Union Head of Delegation in the Pacific, Mr. Frans Baan.

The workshop which was generously sponsored by the European Commission, the Ministry for Economic Cooperation and Development (BMZ), Germany and the Department for International Development (DFID) United Kingdom was jointly organised by the SPC Forests and Trees Programme and the SPC/GTZ Pacific German Regional Forestry Project.

The principal goals of the workshop were:

- To become familiar with the difference between conventional training and the training of trainers and of course organisation and evaluation;
- To learn and improve existing knowledge and skills on forestry related issues especially on forest certification including chain of custody and auditing;
- To learn about designing a national promotion strategy; and
- To learn about capacity building in Forest Certification and under development of institutional and organisation arrangements focus

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Participants of the Forest Certification Workshop - Mocambo Hotel, Nadi, Fiji

The workshop confirmed the overall importance of Sustainable Forest Management in maximising the benefits of the Forestry Sector for all stakeholders, and how forest certification is an important process, which can contribute to this goal. While recognizing the role of NGOs in Papua New Guinea's experience with Forest Certification, the workshop endorsed the role of Forest Certification as a market-driven tool, which requires elevated stakeholder awareness and sustained government commitment in an enabling role. It was identified that of particular importance amongst the stakeholders are the resource owners. There is a need to elevate their understanding and acceptance of Certification as a means of enhancing their share of the benefits from Sustainable Forest Management.

There has been significant but varied progress towards certification amongst the countries in the region. The need to establish a multi-stakeholder National Working Group was seen as priority for participating countries wishing to ensure that their Forest Certification standards are going to be relevant to their local conditions.

The workshop endorsed the need to establish National Working Groups within the next year. It was also noted that governments in the Pacific have a significant role to play in facilitating the process.

Merry Christmas and Happy New year

Jalesi Mateboto

SPC/GTZ Pacific German Regional Forestry Project

FIJI ITTO PROJECT

Landowner Education & Training for Sustainable Forest Management

The latest Project Steering Committee Meeting held on 12 July 2002 concluded its unanimous support for the extension of the ITTO project for another 18 months from July 2002 – December 2003.

The extension is a boost to the Fiji Forestry Department in its efforts to make the project a successful one, in its commitment to increase Fijian participation in the Forest Sector.

The specific objectives of the project are to educate the forest owning mataqali and Native Lands Trust Board Estate Managers in the financial, the communal and national advantages of managing their forest sustainably, and to train landowners

and contractors in the skills and requirements of logging to the appropriate standards.

Activities are already underway with project staff working full time to ensure the timely implementation of project activities.

Development of a delivery Package on Sustainable Forest Management (SFM)

A review workshop was held from 12-14 August 2002 where a total of 12 organizations were invited to deliberate on the awareness and education package that was developed through the ITTO project. The awareness and education package was, up to that time, an in-house Forestry Department creation.

The main objective of the exercise was to collate valid criticism of the awareness and education package to enable the development of a more coherent and acceptable package to our rural based forest owners.

Fiji has a total land area of 18,390 sq. km. supporting a population of 773,000 at the end of 1996 with a population growth of just below 1%. Most of the country's forest are tropical moist type with the indigenous forest covering approximately 44% of the total land-mass of which an estimated 250,000 hectares are un-exploited production forest. Eighty nine percent of the un-exploited production forest and approximately 85% of all Fijian forests are in communal ownership.

Assuming that about 75% of the production forest has an average stocking of 45 cubic meters per hectare, it is estimated that timber resources on Viti Levu is approximately 5.6 million cubic meters of commercial forest and 4.4 million cubic meters on Vanua Levu. At the end of 1998, a total of 94400 hectares was under pine and mahogany plantations. This is anticipated to be extended to 140,000 hectares by 2006.

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PNG FORESTRY & CONSERVATION PROJECT

The Papua New Guinea Forestry and Conservation Project is a six year project, with a total funding support of USD39.9m. The funding is made up of 44% grant from the Global Environment Facility; 43 % from a World Bank loan; and 13% from the PNG Government.

The PNG Government and the Board of the World Bank formally approved the Project on 18 December 2001. Since the signing of the project, it has already attracted a further commitment of a AUD3.5m grant from the Australian Government.

The Project's primary objective is to help government, resource owners, and non-governmental organizations to wisely use, manage and conserve the nation's remaining forest reserves on sound principles of sustainability that will enhance and improve the quality of life of the people living at the local level. The Project will also assist in promoting and strengthening mechanisms for good governance, transparency, and accountability in the forestry sector.

The Project has four major components that include;

- i. Sustainable Forest Management** – focus on strengthening the capacity of the PNG Forest Authority, improve post harvest forest activities; and promote the development of plantation forestry and the rehabilitation of logged-over areas.
- ii. PNG Mama Graun Conservation Trust Fund** – provide capital via GEF grant to fund viable and sustainable community based forestry and conservation initiatives.
- iii. Landowner Decision and Organisation Unit** – develop mechanisms to

enhance forest owner's effective participation in forest and related land-use decision-making. It will also focus on developing effective conservation management ar-

iv. Environmental Assessment and Monitoring

– strengthening the Department of Environment & Conservation to operationalise effective environmental impact assessment mechanisms, and to develop a community based environmental monitoring programme.



Scattered forests amid grassland along the northern coastline of PNG

One of the main feature of this Project is the grant to be provided by GEF and other donors that will be an approximate USD30 million endowment – the PNG Mama Graun Conservation Trust Fund through which will provide an on going financing mechanism to assist sustainable forest and conservation activities in perpetuity. Once fully operational, this will provide over USD2-3 million per annum (in today's terms) on an ongoing basis to fund and support viable community based forestry and conservation initiatives.

The Project is under the supervision of the Department of National Planning & Monitoring. A semi- autonomous Project Oversighting Committee

has been appointed with planning and directing project implementation responsibility for achieving project objectives.

Project implementation will be executed by long term positioned staff within the Project Management Unit, and also, by various short-term consultants. All procurements of goods and services are to adhere to World Bank procedures and in some cases UNDP procedures.

Since September, the following goods and services contracts have been tendered to secure expressions of interest and potential providers;

- i) Technical Assistance to PNG Mama Graun for the establishment of the Conservation Trust Fund;
- ii) Technical Assistance on Development Option Studies;
- iii) Technical Assistance to Strengthen Forest Post-Harvest Management;
- iv) Technical Assistance to Improve Forest Management Planning & Monitoring;
- v) Technical Assistance to Strengthen Environmental Assessment, Monitoring and Regulations;
- vi) Technical Assistance for the Development of Computerised Financial Management System (FMS Software)

A number of individual consulting positions are now being prepared and will be advertised in the first quarter of next year. We are working towards the formal launching of the Project in February 2003.

Submitted by:

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Regional News

(An Extract from Overstory # 112)

FARM FORESTRY EXTENSION

INTRODUCTION

The infinite possibilities inherent in farm forestry, and the wide variation in farmers' needs, resources and aspirations mean that there are no 'best-bet' species, spatial arrangements or management 'recipes' suited to more than a few growers within a region. This suggests that rather than promoting particular options, the objective of farm forestry extension should be to enable farmers and other stakeholders to play an active role in the development of options that best meet their own interests and resources.

Most definitions of farm forestry focus on what the forests look like or their purpose. This has led to widespread acceptance of the notion that farm forestry is part of a continuum from large-scale monoculture plantations down to small-scale plantings. From this perspective it is easy to lose sight of what makes farm forestry unique and the need to develop specially targeted research and extension programs for this sector (Alexandra and Hall 1998). Our working definition of farm forestry emphasises the decision maker rather than the outcome: Farm forestry is the commitment of resources by farmers, alone or in partnerships, to the establishment or management of forests on their land. What clearly distinguishes a 'farm forest' or 'agroforest' from a corporate, industrial or government forest is not scale, it is ownership. Not just ownership of the land or the trees, but ownership of the decision whether or not to carry out the project, and how. Farm forestry and agroforestry are therefore about choice: farmers choosing to commit their resources to the development and management of forests for, amongst other things, commercial return.

Farmers establish and manage their forests for any combination of benefits. They may place an emphasis on a single outcome, such as timber production or biodiversity, or they may seek to balance a range of benefits in a multipurpose planting. Their priori-

ties may vary over the farm and change over time. A forest initially established or managed for wildlife or land protection might later be harvested for timber or valued for its beauty. Forests on farms may increase agricultural production or simply displace it. They might be sustainable, even improve economic, social and environmental capital, or they may deplete these assets. The farmer, or their partners, may profit from farm forestry or come to regret their involvement. Farm forestry is different because farmers (non-industrial, non-corporate private landowners) are different.

RESEARCH AND EXTENSION

Farm forestry research and extension becomes a process of change through "facilitating social learning" (King 2000) which encourages farmers, communities, industry and governments to clearly define their own interests and expectations and to acknowledge where the costs and benefits lie. Rather than simply trying to get farmers to grow forests specially designed to solve the problems that outsiders perceive as critical, the aim is to empower communities to the point that they are able to articulate, design and implement forestry practices that best meet their needs. The degree to which the outcome of such a process will also meet the needs or interests of particular industry sectors, governments agencies or conservation groups will largely depend on the degree to which there are shared goals, a capacity and willingness amongst farmers to act, adequate rewards for farmers who do provide the services or products sought by others, and the degree to which penalties are imposed for non-compliance.

FIT FORESTRY INTO THE EXISTING FARMING CULTURE

Rather than try to mould farmers into the dominant forestry culture the real challenge lies in fitting forestry into a farming culture and helping farmers identify opportunities to use trees and forests to express their own attitudes and aspirations. Farming cultures vary and reflect the shared ideas, beliefs, values and knowledge within the rural communities thus forming the basis of

social action and response. Cultures are dynamic but only change slowly with the passage of time, changing circumstances and changes in the population. In any event, to suggest we need to change farmer attitudes implies that their existing attitudes are inappropriate or illegitimate - a morally questionable starting point.

Although attitudes are difficult to measure or describe, behaviour might be seen as an expression of an individual's attitudes and beliefs within the context of existing knowledge, resources, opportunities and threats. The reluctance of farmers to invest in production-focused farm forestry options could be seen as an expression of their broader social, environmental and economics interests and their judicious wish to reduce risk and retain management flexibility. Rejection of profitable options or an unwillingness to manage an established forest does not necessarily mean that farmers are "irrational".

Neither should we assume that farmers do not have long-term goals. To the contrary, their long-term aspirations provide a basis for short term decision making. Landowners commonly talk of passing the farm onto future generations in a better state, not exposing the farm to unnecessary risk, protecting and enhancing the productive value of the property and increasing property value (Rickenbach et al 1998, Francis 2000). Forestry is clearly a powerful and useful tool that farmers and rural communities can use to achieve these goals and express their own cultures. Is it not easier to "go with the flow" and allow these honourable environmental and social imperatives to drive revegetation than to continue to argue that good forestry requires a timber focus and a profitable DCF analysis?

CAPITALISE ON FARMERS' COMPARATIVE ADVANTAGE

Farmers, especially where they are involved in alternative enterprises, are able to capture a wider range of non-timber values than those usually available to industrial growers or even off-farm investors. They may be able to

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take advantage of environmental grants, existing farm machinery and possibly even idle labour to establish and manage of plantations. As farmers, they are also in a position to realise the shelter, land protection and wildlife benefits of well-designed plantations. Those living on the farm are also able to enjoy the landscape values "unseen" by corporate investors and their shareholders.

Rather than viewing these non-timber values as further reason why farmers should be interested in best-bet forestry production regimes (Grist and Burns, 2000) the real opportunity lies in assisting farmers to select and design forestry projects that focus on them realising the easily captured, short-term values. For many farmers the motivation, resources and enthusiasm to grow trees for these values already exists (Wilson et al 1995). Further encouragement and financial support may come from communities "paying" landowners for the off-site environmental values that their forests offer as proposed in the Australian government's discussion paper on Managing Natural Resources (AFFA 1999). Some are threatened by the devaluation of timber from its status as the primary focus of forestry. If farmers are able to justify the establishment and management of trees on the basis of their short-term non-timber values, then whether or not timber is the primary goal or is able to provide a real return on investment is not important.

AIM FOR A FOREST THAT IS VIABLE TO HARVEST?

Where shelter, land protection, wildlife or other non-wood values are seen as significant benefits of a growing forest it could be assumed that landowners will only consider harvesting if the return from timber covers both the costs of harvesting and compensation for the loss of non-timber values. This would suggest that as farmers place increasing emphasis on the non-timber values of forests buyers may need to pay more, not less, for the timber in order to encourage them to harvest (Dole 1993). It also suggests

that the farmers are unlikely to specially design and manage their forests in order to increase the future timber value (economic rational behaviour) unless this also complements short-term non-timber values.

The protection of non-wood values might also be expected to dissuade farmers from clearfelling large areas for timber. As a result, the costs of harvesting and marketing the timber from these forests might be expected to be greater than in timber-focused plantations thereby adding to the price the landowner must receive in order to justify harvesting. In any event, any economies achieved in harvesting might be expected to be lost in the need to compensate farmers for the loss of non-wood values. This suggests that the potential for farm forestry to produce timber for industry depends on farmers achieving high standing log values and having access to appropriate scale harvesting and marketing procedures.

Whether landowner's reluctance to harvest means that log prices will need to be higher for multipurpose forestry than those sufficient to drive investment in timber-only plantations is not clear. What is certain is that those factors that commonly threaten the economic viability of timber-focused plantation options, namely rotation length and site productivity, will not necessarily be the major determinants of the viability of multipurpose farm forestry. The decision to plant or manage forests on farms is likely to be justified by the non-wood values alone, whether the forests ever contributes to the country's timber supply will largely depend on whether the forest is "viable to harvest". The current approach to identifying farm forestry options is based on whether the future returns make it "viable to plant" - the result being regimes that are of little or no benefit to farmers.

ACTIONS THAT MAY FACILITATE SPONTANEOUS FARM FORESTRY DEVELOPMENT

No longer need farm forestry research and development battle against the

obvious economic impediments and disadvantages facing farmers as they compete to grow full cost recovery production-focused regimes. No longer will extension program focus on the questionable task of trying to change attitudes and cultures. Neither do we have any justification to ignore the prospects of growing timber in areas considered too dry, too isolated or too small for "profitable" forestry.

The following are some examples of the types of practical research and development projects that might help increase the prospects of farmers producing timber and other forest products from multipurpose plantations:

- * Social research to identify landowner motivations, resources and performance criteria rather than assuming landowners will select options on the basis of their apparent long term profitability as suggested by the Net Present Value or Internal Rate of Return;

- * Low impact harvesting methods for irregular, small scale and/or diverse multipurpose plantations;
- * Silvicultural management techniques for mixed species or multipurpose plantations that focus on the higher value log markets;
- * Results-orientated codes of practice that encourage innovation and allow landowners considerable latitude in the way they achieve socially desirable environmental objectives (an alternative to the current prescriptive input-orientated codes);
- * Wood product research into the value adding of farm grown logs to increase industry confidence and thereby increase their preparedness to pay more for logs that meet their strict market specifications;
- * New product research and market development for alternative wood or non-wood products from farm trees;

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South Pacific Regional Initiatives on Forest Genetic Resources (SPRIG)



SPRIG PHASE II

1. SPRIG NEWS

A major activity for the quarter was co-organising and participation in a **Regional Workshop on Sandalwood Research, Development and Extension in the Pacific Islands and Asia** was held at SPC Headquarters in Noumea, New Caledonia from 7-11/10/2002 (see separate report this issue). SPRIG/AusAID sponsored seven people to this workshop including Australia (3), Fiji, Vanuatu, Tonga and Indonesia. Six papers were presented by SPRIG staff and/or on Forestry Department/SPRIG work on sandalwood. During the visit SPRIG staff were interviewed by a New Caledonian Film crew for a documentary on the history of exploitation of sandalwood in the South Pacific.

During the quarter planning was advanced for one person from SPRIG partner countries to undertake graduate diploma training at the School of Biology at the University of the South Pacific in Suva, Fiji. The trainees for 2003 are Mr Ponijesi Bulai (Fiji) and Mr Maloni Havea (Tonga), and for 2004 Mr Tolusina Pouli (Samoa) and Mr Basil Gua (Solomon Islands). It is planned for Mr Ioan Viji (Vanuatu) to enrol for an MSc at USP in 2003 with a thesis topic of "Inheritance Studies of Characteristics of Economic Importance in Whitewood (*Endospermum medullosum* L.S. Smith) in Vanuatu)".

In Samoa Mr Tolusina Pouli and Mr Tito Alatimu and the SPRIG PTL (Dr Lex Thomson) have prepared and had accepted a paper for International Forestry Review entitled "Conserving the Pacific Island's unique trees: *Terminalia richii* and *Manilkara samoensis* in Samoa".

In Vanuatu Mr Alic Berry and Mr Joseph Tungon translated a manual for growing Sandalwood into Bislama. This will be printed and distributed to

prospective growers by Extension and SPRIG personnel in Vanuatu.

National Project Co-ordinating Committee Meetings were held in Tonga, Samoa and Fiji during the quarter. The SPRIG PTL participated in a Breadfruit meeting organized by SPC Agricultural Program at SPC Nabua on 29/11/2002 and presented a presentation on "Domestication of multipurpose trees in SPRIG".

During November the SPRIG PTL was based at SPREP HQ in Apia to work on joint activities. This work mainly involved elaboration of a Capacity building plan for Ha'apai Biodiversity Conservation Area with Sam Sesega. Discussions were also held with Sione Faka'osi, the former Conservation Area Officer for Ha'apai.

Ms Susan MacDonald has recently taken over from Mr John Kelly as SPRIG's program officer in AusAID. We would like to extend our warmest appreciation to John for his professional and thoughtful overview of SPRIG and wish him the best in his new work in AusAID.

Country Update - Fiji

Fiji has made considerable progress in sandalwood and propagation activities at Colo-I-Suva Research Station since re-joining SPRIG in July this year. Activities have included

- Seed collection and propagation of sandalwood or yasi (*Santalum yasi*) from Vanua Levu,
- Establishment of yasi trials at Vunimago, Viti Levu of families from Lakeba, Lau plus local controls,
- Establishment of hedges of indigenous conifers, including yaka (*Dacrydium nidulum*) and dakua salusalu (*Decussocarpus vitiensis*)

Other activities in Fiji have included:

- Meeting with Minister for Forests and Fisheries, The Honorable Mr Konisi Yabaki, by Lex Thomson, Manoj Charan (Deputy Conservator – Operations) and Susana Tuisese to discuss SPRIG work in Fiji. The Minister was delighted with the work being undertaken, including emphasis on valuable native species, especially dakua makadre (*Agathis macrophylla*). Mr Yabaki also expressed a desire that the improvement work done on large-leaf mahogany in Phase 1 be extended to small-leaf mahogany (*Swietenia mahogani*). *S. mahogani* has a darker and more attractively figured timber and potential for planting in drier zones of Fiji.

- Participation in a National workshop on Plant Genetic Resources held at Koronivia Research Station from 25-26/11/2002. The SPRIG Project Scientist (Mr Inoke Wainiqolo) attended this workshop, along with the PTL, and gave a presentation of forest genetic resources work being undertaken by the Department of Forests, especially through the SPRIG project. The workshop was organised by the Ministry of Agriculture, Sugar and Land Resettlement (MASLR) and the SPC/Pacific Agricultural Plant Genetic Resources Network (PAPGREN) as part of a series of national PGR stakeholder workshops. It provided a useful opportunity to exchange information on the work being undertaken on multipurpose trees, including fruit/nut/timber trees, in SPRIG and the MASLR.

- **Signing of SPRIG Code of Conduct for Sharing Tree Germplasm by the Conservator (Laiakini Jiko).**

(SPRIG News was compiled by Inoke Wainiqolo, Ponijesi Bulai, Atchison Smith, Maloni Havea, Tolusina Pouli, Basil Gua, Ken Robson and Lex Thomson).

SPRIG News

2. Visit to Niue by SPRIG Project Team Leader

The SPRIG PTL (Lex Thomson) undertook a short visit to Niue from 4-8 November, 2002. The objectives of the visit were twofold. Firstly, to provide technical advice on forest and tree genetic resources and related issues to Niue, including assistance with sourcing of germplasm. This was a joint activity with SPC Forest and Trees Program. The second objective was to provide support to the Forestry Division of the Department of Agriculture, Forestry and Fisheries (DAFF) in the propagation of indigenous tree species and woody legumes. This activity was undertaken with the guidance and support of Landcare Research NZ Ltd.

During the visit technical staff of DAFF were trained in the identification of locally-occurring woody nitrogen-fixing trees (including leguminous trees and *Casuarina* species), and shown how to collect and pre-treat and sow legume seed.

Some other achievements of the visit were:

1. Identification of an extensive population of a local leguminous tree (*Schleinitzia insularum*) in the Matapa-Tavala area that could be used for future seed collection and propagation.
2. Establishment of the existence of a moderately large (> 100 individuals) population of sandalwood or ahi (*Santalum yasi*) adjacent and west of Hakupu village (see photo). Advice was provided on future management and utilization of this stand, as well as the potential and technologies for new sandalwood plantings on Niue.
3. Review of the excellent "Guide to the trees of Niue" by Joslin Heyn and Terrienne Mokoia. A small number of incorrect names for species and photos were detected during this review.

4. With assistance from Ms Mokoia, a table of information on indigenous tree species was produced for the Niue country report on forest and tree genetic resources (to accompany 1999 report by Shiela Utalo). This report will shortly be placed on the SPRIG website.
5. Interview played on Niue National TV news on SPRIG and findings of visit.



Ms Terrienne Mokoia inspecting sandalwood (*santalum yasi*) near Haikupu Village, Niue.

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The national policy for the forest and forest industries sector is to establish the sector firmly as a major driving force of the economy. In particular, emphasis is placed on the sector to:

- § Provide permanent foundation for employment, social development, cultural stability and income generation in the rural areas;
- § Provide the source for basic industrial wood based materials for infrastructure, social and economic development nation wide;

- § Ensure the direct participation of landowners in forest based industries and
- § Assist the establishment of communally owned, managed processing and value-adding facilities based on native forest and communally owned plantations.

The Ministry's vision is for the Forest sector to become and continue as a leading sector in Fiji's socio-economic

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SPRIG News

SPRIG Vegetative propagation work on 'Eua, Tonga

Selection of candidate plus trees

The *Toona ciliata* provenance trials on 'Eua in Tonga, established in 1998 as part of SPRIG I have developed well enough to produce several outstanding trees suitable for clonal propagation. In April 2002, these trials were searched by MAF research staff for outstanding individuals (candidate plus trees/clonal selects). These are trees that are bigger and straighter than the surrounding trees. A selection rate of approximately 1 in 200 produced total of eleven trees from a range of provenances (Table 1). There were 3 selects from a mixed seedlot of India, Hafu & Tongan seed, 2 from Atherton (Qld), Gympie (Qld) and Allyn River (NSW) and one each from Wollongong (NSW) and Marshall Mountain (NSW).

Clone No	Girdling Date	Tree No.	Rep	Line	Prov No	Seed Origin
1	13/08/2002	672	3	8	8	India, Hafu & Tonga
2	13/08/2002	721	3	10	8	India, Hafu & Tonga
3	13/08/2002	824	4	4	1	Gympie
4	13/08/2002	874	4	6	7	Atherton
5	13/08/2002	1008	5	11	11	Atherton
6	13/08/2002	1023	5	11	5	Allyn River
7	13/08/2002	1024	5	11	5	Allyn River
8	13/08/2002	1031	5	12	8	India, Hafu & Tonga
9	13/08/2002	1046	5	12	2	Wollongong
10	13/08/2002	1062	5	12	3	Marshall Mountain
11	20/04/2002	822	4	4	1	Gympie

Table 1: Details of Red Cedar clonal selects on 'Eua, Tonga.



Fig. 1: Applying girdling treatments to red cedar.

Girdling

Rather than thin these good trees to gain coppice material, it was decided that a girdling treatment should be tried. In August 2002, each of these selections received a girdling treatment. This treatment consisted of two half girdles. The bark, down to and including, cambium layer was removed. A strip of bark was removed from half to three quarters of the circumference of the tree and about 5 cm wide, and as low as possible. A second strip was removed from the other side of the tree and approx 8–10 cm higher (Fig. 1).

To ensure good coppice material, the trees surrounding the selects were either thinned or pruned on the 5th September 2002. This will ensure enough light reaches the base of the selected tree.

Vegetative propagation

A porta propagator, a portable propagation misting unit, was built on 'Eua. This unit was constructed by the MAF research team and SPRIG propagation specialist, Mr Ken Robson.

In August 2002 a number of test cuttings were set. The coppice shoots on the girdled red cedar selects were not ready for collection, so a number of shoots from wildings were collected. These shoots were collected only so that the propagator could be tested and the propagation technique could be demonstrated. They were not optimal shoots as the age and phenotype of the wildling was not able to be determined.

The test setting also included a number of other species, *Pinus caribaea* and *Terminalia catappa*. Cutting material for these species was collected from nursery stock.

Cuttings were transported to the office and MAF staff prepared and set 125 cuttings. Cuttings of *Toona* and *Terminalia* were dipped in 8g/l IBA rooting hormone and set into a mix of three parts soil: 1 part sand

SPRIG News



Fig 2: MAF staff setting cuttings.

Results

After 9 weeks, cuttings were removed and results are shown in Table 2. Although only 11 out of the original 50 red cedar cuttings produced roots, it must be remembered that the cutting material was not optimal. The eleven surviving red cedar cuttings produced an average of 8 roots per plant, with one cutting having 24 roots (Fig 3). The average root length was 2.3 cm with a range between 1 mm to 13.5 cm long.

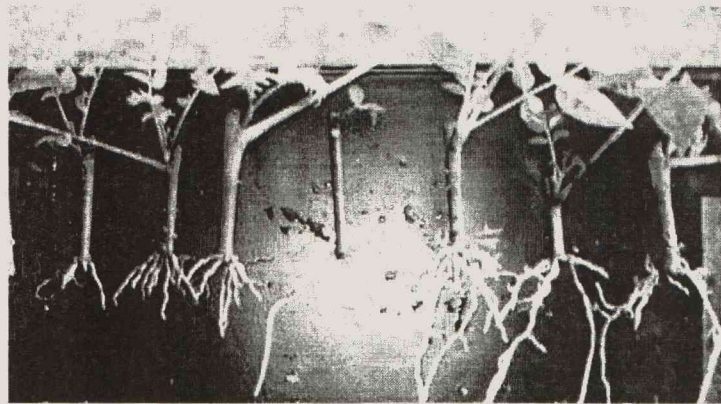


Fig 3: Root development on red cedar cutting

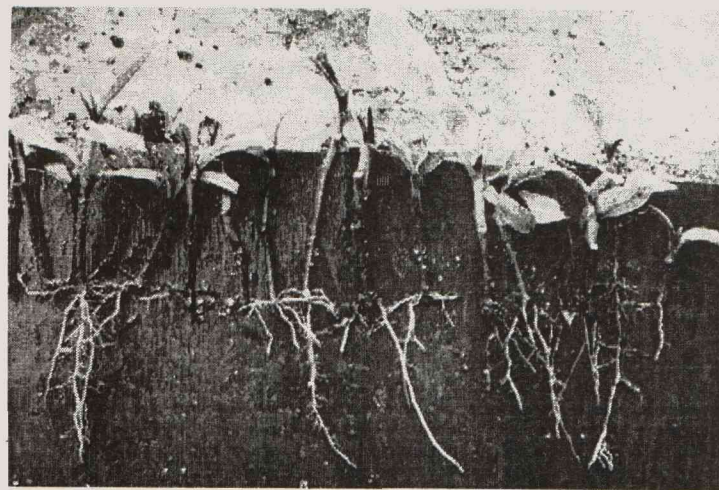


Fig 4: Root development on Terminalia cuttings

Species	Survival at 9 weeks	
	Numbers	Percentage
<i>Toona ciliata</i>	11/50	22%
<i>Terminalia catappa</i>	19/22	86%
<i>Pinus caribaea</i>	21/50	42%

Table 2: Results of rooting from initial setting.

The *Terminalia catappa* produced very good results (86%). The material was juvenile as it was taken from seedling stock in the nursery. Each of the surviving cuttings produced several roots with average length of approximately 5 cm (Picture 4).

The *Pinus* cuttings had produced callus but very few had produced roots.

Conclusions

The initial setting of cuttings on 'Eua was very successful. The porta-propagator, with solar panel to charge battery, ran well. The only problem encountered was the water in the container heating up during the day. The container (a 200 litre plastic drum) lasted for about 3 days.

The girdled red cedar clonal selects are coppicing well and have been cut back to encourage more shoot growth. There should be adequate material ready to collect by mid- December 2002. When this material is ready, cuttings will be set and the resulting rooted cuttings planted into clonal hedges adjacent to the 'Eua forestry nursery.

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- * Marketing mechanisms for the sale of environmental and social services from farm forestry to ensure farmers are rewarded for off-site environmental and social benefits.
- * Knowledge of the relationships between the management of trees for timber (silvicultural management and harvesting) and non-timber values highlighting opportunities for multipurpose production and agroforestry.

CONCLUSION

Fitting forestry into a farming culture is about farmers growing and managing forests that provide a wide range of values rather than simplistic production focused plantations. The time frames are too long, the risks too great and the opportunities for other values too obvious. Farmers are commonly willing to compromise the long-term focus on timber in order to ensure that other values are retained. This not only ensures early rewards but reduces the risks associated with single purpose forestry options.

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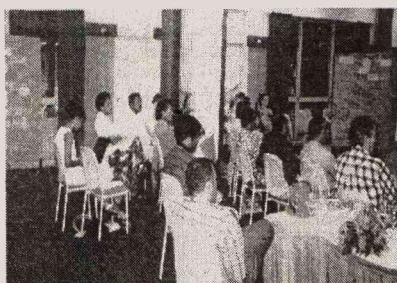
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Certification Workshop participants - Nadi, Fiji - March 2002.

THE ROLE OF THE GOVERNMENT OF PAPUA NEW GUINEA TOWARDS FOREST CERTIFICATION

PNG Government has been rather "neutral" on the issues surrounding Forest Certification, especially at the political level. Despite the fact that its administrative arm responsible for forests has been, to some extent, very much involved at the international, regional, national and community levels.

This paper briefly addresses the role PNG Forest Authority, the administrative arm of Government's forest sector, has played so far in terms of addressing the issues surrounding forest certification in Papua New Guinea.

Regional observers consider Papua New Guinea to be in the advanced stages of Forest Certification and Forest Management Guidelines formulation, because :

- (i) PNG has an existing national working group (NWG) with its main term of reference is to formulate its National Forest Standard for Sustainable Forest Management under FSC/FC principles and criterions.
- (ii) it has finalized a draft FSC Certification National Standard, which has been reviewed by the FSC Secretariat and is currently being prepared by the WG for submission to the FSC Board for official endorsement.
- (iii) at least 5 village based small forestry operations are certified under Group Certificate (originally certified against the generic FSC Principles and Criteria for Sustainable Forest Management, later monitored using the draft version of the FSC National Standard.

- (iv) it is currently reviewing a national logging code of practice
- (v) hosted a ITTO Sponsored National Workshop on Criteria & Indicators

What role has the Government of Papua New Guinea undertaken so far?

"THE GOVERNMENT'S GENERAL ATTITUDE HAS BEEN TO ACCOMMODATE, FACILITATE AND RECOGNIZE THE PROCESSES OF FOREST CERTIFICATION"

The emergence of Forest Certification and its potential as a tool to promote sustainable forest management (SFM) in the region was discussed by Heads of Forestry of Pacific Island Countries and Territories (PIC/Ts) during its meeting in Nadi, Fiji in September 1998. This meeting encouraged a number of regional workshops.

Following the 1998 meeting, the Heads of Forestry met again in Nadi, Fiji in May 2000, which provided the mandate :

1. to facilitate a better understanding of the certification issues, costs and benefits for the region and,
2. to formulate strategies towards countries in accepting forest certification as a tool for sustainable forest management.

The Government through PNG Forest Authority is still a 'neutral partner' in the Heads of Forestry deliberations towards forest certification. However, it continues to remain a major partner and thus recognizes forest certification as a tool for SFM. Thus it has accepted invitations to be participants at a number of International, Regional and National Workshops addressing forest certification issues such as the following:

- * Forest Stewardship Council Workshops - 1996

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** Members of the FSC National Working Group Meetings, 1996-2002

The Gizo Forest Certification Workshop in Solomon Islands, 1998

The Workshop in Labasa, Vanua Levu, Fiji, 2001

The Workshop in Nadi, Fiji, March 2002

*** The ITTO International Workshop in Kuala Lumpur, Malaysia, April 2002

The 32nd ITTC Session in Bali, Indonesia, May 2002

The Workshop in Nadi, Fiji, Oct/Nov 2002

The Government of PNG is a signatory to the International Tropical Timber Agreement (ITTA) and will thus be guided by the general consensus of the International Tropical Timber Council decisions. Hence, it has far achieved a milestone when it conferred with the International Tropical Timber Council's Decision No: 11 made in Bali, Indonesia in May 2002 in recognizing forest certification as a voluntary market-based tool for sustainable forest management. The decision is made in light of the various certification schemes and thus the position of mutual recognition. Therefore, the Governments "draft" policy statement indicates that timber certification is a market driven process to be left to the timber industry and civil society groups assisting resource owners to satisfy the market demands.

Timber certification enables the consumer to realize that the timber and timber products have been derived from sustainably managed forests. The Government of PNG will review from time to time the development of certification schemes.

The Government's other arm administering and regulating National Standards is the National Institute of Science and Industrial Technology (NISIT).

One of NISIT's main objective as stipulated under Section 4 (c) is:

"to formulate, develop, and promote through dissemination and promulgation of, technical and measurement standards for commerce, community and industry and for goods produced in or imported into the country"

The NISIT is aware of the fact that there are certain forestry standards/certification schemes developed outside its mandate. However, it is required under law to regulate both mandatory and voluntary standards. The draft '*National Forest Management Standard*' could be recognized as a voluntary standard as long as the forestry arm of government also recognizes its usefulness.

So far, the policy option/stance presently taken by the Government is to formally recognize forest certification standards as 'voluntary standards' and thus, these standards must be registered with the National Institute of Standards and Industrial Technology as pertained to its regulation. At present, PNG Forest Authority is currently working very closely with various technical committees in having representatives appointed to the committees such as:

1. *FSC National Standards Working Group*
2. *PNG Logging Code of Practice*
3. *Quality Assurance Certification Committee (QACC)*
4. *Constructions Standards Committee (CSC)*

The latter two are committees appointed by the NISIT Council.

One of the Government's undertaking through PNGFA being the 'lead implementing agency' is the acceptance of the European Union funded Eco-forestry Project whereby one of the components addresses forest certification.

However, under this program it should not be misinterpreted as adopting this FSC forest certification scheme which the Government may seem contradicting its recent support of ITTC Decision 11 of May 2002 in Bali, Indonesia.

The National Forest Board in 2000 Board Meetings have already considered two Board papers dealing with forest certification and is considering another Board submission.

I can firmly conclude by saying that the Government is committed to such an issue as forest certification and is dealing with it in the manner it sees appropriate for public consumption especially the village based community.

Submitted by:

*Michael Avosa
PNGFA*

Continued from Page 9

development and growth and that resource owners are adequately and equitably remunerated. Our mission is focussed on the sustainable development of the forest resources and industries aimed at sustaining national economic growth through private and public industries. The Ministry's goal is to strengthen the national capacity to facilitate sustainable management of the forest resources with increasing participation of resource owners and improving the living standards of all communities in Fiji. Strategies in place to achieve these include the creation of suitable environment for development of the sector to its full socio-economic potential; proper implementation of appropriate programs that promote sustainable development of natural and plantation forests; and the promotion of active participation of indigenous landowners in the commercial development of their resources.

Fiji has ratified the International Tropical Trade Agreement (ITTA) and is a member of the International Tropical Timber Organization (ITTO). The objective of ITTA provides for ITTO to facilitate consultation and cooperation between all its members on all aspects relevant to the global timber economy through the promotion, expansion, diversification and strengthening of trade in tropical timber and a more equitable distribution of the

Other News

of the proceeds of that trade between the producers and consumers. The ITTA also aims to encourage reforestation, better forest management and the sustainable utilization and conservation of tropical forest and their genetic resources whilst maintaining ecological balance in the tropical region.

The project commonly known as the ITTO - Landowner Education & Training for Sustainable Forest Management Project allows for the implementation of the ITTA objectives, strategies and action plans for Reforestation and Forest Management.

The project recognizes the important role of resource owners in the sustainable management of Fiji's forest resources. It conforms to the Ministry's vision, mission, goal and strategies. In particular, it addresses two key result areas of the Ministry's Forestry Department, namely the maintenance of the forest resources on a sustainable basis and the promotion of understanding and awareness of Forest Values amongst resource owners.

Approximately 85% of Fiji's forest resources are native owned hence it is the landowners who ultimately determine whether their forests are brought into sustainable management. Governments' efforts to bring the forest into sustainable management has been met with mixed success as the immediate and seemingly impressive financial gain from unrestrained logging is all too often irresistible to landowners. Although most landowners are aware of the advantages of sustainable forest management, only a few hold firm their conviction when offered attractive deals by local logging companies. It is therefore imperative to totally convince landowners of the benefits of sustainable forest management and to cement their confidence in the system.

Efforts by the SPC/GTZ/Pacific Regional Forestry Project, the Foundation of the Peoples of the South Pacific (FSP) and other organizations have shown the potential in landowning communities to fully embrace the concept and practice of sustainable forest management.

The ministry fully supports these initiatives and believes it is possible to spread the benefits of an informed and educated decision to all rural forest owners. Further, in our effort to fast track the process of enabling active landowner participation in the management of their resources the Ministry welcomes contribution of all stakeholders to ensure that our technical

mindset on forest issues is balanced with the broader daily concerns of our target group as perceived from other stakeholders point of view.

Organizations that supported the review workshop through their representation included the Fijian Affairs Board, Fiji Hardwood Corp. Ltd., Landuse Section of MAAS&R, Native Land Trust Board, SPC/GTZ/Pacific Regional Forestry Project, USP/Institute of Applied Science, and the Foundation of the Peoples of the South Pacific, Live & Learn Environment Education and relevant staff of the Department of Forestry.

Ultimately the objective of the awareness package is to create an enabling environment whereupon landowning units desire a change in their management practice and subsequently embrace with unwavering certainty sustainable management practices as the only way forward.

Field Testing the Awareness Package

The resulting awareness modules that were developed at Nadave were field tested on 27-29 August 2002 at Nabukelevu village in Serua.

There were a total of thirty (30) participants at the workshop – all from the village of Nabukelevu. Participants represented five mataqalis (land owning units) and organizations in the village. It was encouraging to interact with secondary school students who were on holiday at the village and who were also representing their various mataqalis at the workshop.

The workshop was facilitated by staff of the Extension Division of the Forestry Department and focused on seven modules, integrating participatory tools to enable free flow of information and exchange between the participants and facilitators. The modules included the web of life, sustainable management procedures, harvesting procedures, community forestry, socio-economic needs and an introduction to the Ministry's policies and strategies.

The web of life incorporates the relationship between forest ecosystems, the marine ecosystem to enable an appreciation of the earth's resources and the need to keep the environment healthy resulting

in an attitude of aspiring to take practical action to look after the environment.

Sustainable Management Procedures highlight the pivotal roles of landowners in the sustainable development of natural forest resources. At the end of the module, the participants should have an attitude of willingness to educate their own families about the importance of managing forest resources wisely and an appreciation of benefits of the Sustainable Forest Management System (SFM). Thus participants should appreciate the need for an adequate preoperational planning, implementation of approved and acceptable methods of logging and the willingness to work with the Forestry Department & other organizations in their commitment to adopt SFM practices.

Harvesting Procedures focuses on current logging practices highlighting the licensing procedures and the requirements of the National Code of Logging Practice. At the end of the module, the participants should be aware of the different roles of the Native Lands Trust Board, the Department of Forestry and other stakeholders. At the same time, participants should appreciate the need to follow the requirements of the National Code of Logging Practice.

Community forestry highlights the role of enrichment planting in regenerating the forest ecosystems and the importance of non-timber forest products. It also focuses on the reason behind introducing faster growing exotic species for afforestation. At the end of the workshop, participants should understand that indigenous species take longer to mature thus appreciate the role of the Department of Forestry in Research of indigenous species, seed collection, seedling production and the establishment of woodlot and plantations.

The new module put together by participants at the Review Workshop in Nadave focuses on the need to meet the socio-economic needs of the community in order to take away pressure on forest resources for immediate socio-economic needs. The principle is based on the assumption that forest resources are long term investment opportunities while other agro based natural resources are immediate to short term investment aligned to meet the socio-cultural obligations of the people in the community.

The module was presented at the Nabukelevu workshop with the assistance of the SPC/SGT/PRFP who presented a

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PNG - ACIAR Forest Domestication Project



Update on Domestication of PNG Forest Species Project.

With a year to go before the completion of the four year project on Domestication and Conservation of PNG forest species, I thought it timely to bring PIF&T readers up to date with the achievements to date.

Domestication of PNG forest species

A 'Trial Register of Indigenous Species' spreadsheet database has been created to record archived, current and future field trials established by the PNG Forest Research Institute (FRI). As part of this work, as many old files from various archived sources have been brought together in a single filing cabinet. A new subject index filing system has been created with cross reference to the old system. A decision is to be made on which trials have sufficient potential to report on. From the 71 trials identified as having sufficient recorded information to retain, current field trials with appropriate background information will be assessed. Once the assessments have been completed a report will be prepared presenting analysed results. In a number of cases where trials have never been measured or where measurement data is not available, a 'final measurements' will be made where the age of the planting is known. This information will at least provide an indication of growth rates and survival.

Establishment of provenance/ progeny trials. Following successful provenance range seed collections (5 per species) of *Casuarina oligodon*, *Pometia pinnata*, *Dracontomelon dao* and *Calophyllum euryphyllum*, five trials have been established in the Lae district and Goroka for the *C. oligodon*.

A species trial which is planned to contain about 25 species is being established in the Lae Botanical Gardens. So far 15 forest species have been established. The seedlings have been raised as part of germination tests being conducted on a suite of species. The species are established (25 trees x 3 reps) as seedlings become available.

An *Acacia mangium* seed production area (SPA) has been established at Wasap Forest District, Madang in January 2002. The seed was obtained from the CSIRO SSO in north Queensland comprising seed from Western Province, PNG and north Queensland. A 'field gains trial' to assess the genetic performance of the seed used to establish of the SPA against three local PNG seed sources is to be established.

Vegetative propagation of PNG species. Techniques for striking cuttings of *Dracontomelon dao*, *Pometia pinnata* and *Casuarina oligodon* have been developed. Techniques for *Calophyllum euryphyllum* and *S. macgregorii* have not been successful to date with work on these two species on-going. Successful cuttings techniques are to be applied to a range of other PNG forest species as a comparison to seed propagation.

Conservation strategies for two PNG species *Santalum macgregorii* and *Gyrinops ledermannii*

A management and conservation strategy for *Santalum macgregorii* (NG sandalwood) has been written and presented to the PNG Forest Authority. It is hoped that a number of the recommendations presented in the report will be implemented either by the Forest Authority or taken up by NGO groups.

An *ex situ* conservation stand of *S. macgregorii* is to be established in the grounds of the Lae Botanical Gardens. This follows a two year program of gathering germplasm from natural stands of the species which occur along the coastal areas of Central and Gulf Provinces of PNG to the north and south of Port Moresby. To date seedlings from 13 families have been raised comprising 1 – 10 plants. For families with less than 5 plants it is planned to try and use vegetative propagation techniques to raise additional plants for use in the *ex situ* stand. *C. oligodon* is to be used as the long term host plant. Spacing for the *Casuarina* is 6 m between rows and 5 m within rows while the sandalwood will be

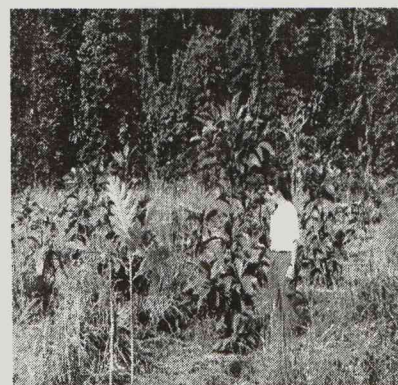
spaced at 6 m between rows and 2.5 m within rows. It is planned to use *Casuarina* as an interim host. The layout comprising an area of 45 x 100 m will allow for inclusion of additional sandalwood plants as they become available.

Rapid Rural Appraisals have been undertaken for *Gyrinops ledermannii* across its known natural distribution which is mainly focused in the Sepik River Basin. Based on the data provided, a management and conservation strategy will be written.

In an effort to encourage the propagation of a wider range of PNG forest species, information is being gathered on seed handling and vegetative propagation of approximately 30 lesser known PNG species. This information will be presented in a booklet. Topics to be covered include flowering and fruiting times, seed handling, germination, seed storage and vegetative propagation for each of the species. Current studies are being conducted on these various topics as information is scant or absent.

Other activities

It became evident during the seed collections of *S. macgregorii*, that there is a lack of knowledge about flowering and fruiting times (see PIF&T 3/02). Some reports have stated that the species flowers sporadically throughout the year without any discernable event to initiate flower bud development.



10 month old *Terminalia kaernbachii* established in the Lae Botanical Gardens as part of the species trials

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practical session on slope land cultivation with emphasis on field demonstration of planting along contour lines. Participants were keen to adopt the technique using locally made A-frame to mark contour lines followed by planting of Kavika and coconut trees along the contour lines demarcated.

The Minister for Fisheries and Forests officially closed the workshop reaffirming the commitment of the government to enabling active landowner participation in the management of their forest resources. In particular, he emphasized the Ministry's support in the maintenance of the forest resources on a sustainable basis and the promotion of understanding and awareness of Forest Values amongst resource owners.

The workshop was successful in that all landowning units that participated pledged their commitment to adopt SFM principals. Each landowning unit was issued with a consent form where at least 75% of the mataqali members must sign their commitment to adopt SFM.

The landowner workshop was fully funded through the ITTO Landowner Awareness and Education for Sustainable Forest Management Project.

Staff Capacity Building on Participatory Community Development

As part of the follow up activities, it is envisaged that a staff training on the technique of Participatory Rapid Ap-

praisal (PRA) will be undertaken in conjunction with the USP/IAS by the first week of November where a set of participatory tools will be developed, suitable for the collation of information required for the formulation of forest management plans at community level. The SPC Forests and Trees Programme and the McArthur Foundation are funding the training.

The PRA package developed will be field tested at Nabukelevu village, Serua and Lutu village, Naitasiri before it is used in other forest based communities in Fiji.

It is envisaged that integrated mataqali forest management plans will be developed from the PRA exercise that will serve as a guideline for forest resource owners on the sustainable management of their forest resources thus ensuring the active participation of resource owners in the management of their resources.

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In order to better understand the phenological activities of the species, flowering and fruiting events are be-

ing monitored using 8 trees located in the Port Moresby Botanical Gardens.

A manual has been drafted covering seed handling activities at the National Tree Seed Centre.

Michael Poesi the project scientist has been awarded an ACIAR Allright Fellowship to undertake his Masters degree at the Australian national University. He will start his two year course in January 2003. In his absence, it is proposed that Mondo Karmar from FRI will take over Michael's project activities.

Submitted by:

*Brian Gunn
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MERRY CHRISTMAS

TO YOU ALL!

AND A HAPPY AND PROSPEROUS
NEW YEAR TOO!!



From: Staff of SPC Forestry Programme

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