DEVELOPMENT AND IMPLEMENTATION OF NATIONAL CODES OF PRACTICE FOR FOREST HARVESTING IN ASIA AND THE PACIFIC

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Introduction

The past twenty years have seen a significant escalation in instruments designed to improve forest management, to ensure better wood recovery from harvesting operations, and to minimise forest damage arising from logging operations. In 1992, the Earth Summit in Rio provided a critical focus on problems relating to diminishing wood supplies from natural forests, declining forest areas – particularly in the tropics – and degradation in the quality of remaining forests and its effects on biodiversity. The Earth Summit spawned the development of a variety of new tools and mechanisms to address these problems, including:

- Criteria and indicators for sustainable forest management;
- Certification standards for forest management;
- Principles and requirements for compulsory forest management plans;
- Reduced Impact Logging techniques; and
- Codes of Practice for forest management and forest harvesting.

This paper provides background and context on the last tool on this list and helps to set the scene for the topic of this conference – the development and implementation of codes of practice for forest harvesting in the Asia-Pacific region.

Much has happened since the Earth Summit

Recent work on Codes of Practice for forest harvesting in the Asia-Pacific region has its genesis in work carried out in the South Pacific in the early 1990s. The major forestry countries there banded together to proactively develop the *Code of Conduct for Logging of Indigenous Forests in Selected South Pacific Countries*, which was endorsed by the 26th South Pacific Forum in September 1995. Fiji pioneered the development of its own national code of logging practice (launched in 1990 and fully implemented by 1996). PNG, Solomon Islands, Vanuatu, New Zealand and several States of Australia have

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subsequently developed national codes based on the regional code, and are in various stages of implementing these.

The FAO Forest Harvesting, Trade and Marketing Branch, based in Rome, initiated the development of the *FAO Model Code of Forest Harvesting Practice* in the early 1990s. Following a series of regional consultations, the Model Code was published in 1996 (Dykstra and Heinrich, 1996). The FAO Model Code focuses on comprehensive harvest planning, effective implementation and control of harvesting operations, thorough harvesting assessment, monitoring and feedback to planners and operators, and development of competent and motivated forest workers. The Model Code has served as a reference framework for developing regional, national, and local codes.

Bearing in mind the development of the Model Code and reflecting on the positive experiences in the South Pacific, an FAO/ITTO Regional Consultation on the Implementation of Sustainable Forest Management in Asia and the Pacific was convened in December 1995. It recommended:

- the establishment of a regional Working Group on Sustainable Forest Management; and
- the development of a comprehensive regional code of practice for forest harvesting (Johnson and Durst, 1997).

Subsequent to the recommendations of the regional consultation, the sixteenth session of the Asia-Pacific Forestry Commission (APFC) established, in 1996, an *ad hoc* Working Group on Sustainable Forest Management with a priority mandate to develop a regional code of practice for forest harvesting. The *Code of Practice for Forest Harvesting in Asia-Pacific* (FAO, 1999) was thus developed through an exhaustive 2-year process that included:

- assessment of existing codes and regulations from around the world to identify elements appropriate for the Asia-Pacific Code;
- visits to several countries in the region to discuss technical components and consult with stakeholders;
- consultations with national focal points to clarify elements of the Code;
- preparation of initial drafts of the Code;
- review and comment on the draft Code by interested individuals and organizations;
- two regional workshops to discuss, refine, and clarify various elements of the Code;
- revisions of the Code based on comments and feedback; and
- submission of the final draft to the seventeenth session of the Asia-Pacific Forestry Commission held in 1998.

The Code is intended to encourage improved forest harvesting throughout the region. It outlines key principles of improved harvesting in Asia and the Pacific, particularly timber harvesting with reduced environmental and social impacts.

The APFC, comprised of 28 member countries, endorsed the Code in February 1998. In doing so, the Commission acknowledged the Code as a model that countries could immediately use to improve harvesting operations. It also made a key recommendation that the regional code could be adapted or modified, as appropriate, to provide a basis for the development of specific national or sub-regional codes more tailored to local forest types and socio-economic conditions.

Following endorsement of the *Code of Practice for Forest Harvesting in Asia-Pacific*, APFC member countries – working together with FAO and other partner organizations – pursued numerous efforts to implement the Code. These activities included awareness raising, garnering of political support, information exchange, training, and development and implementation of national codes of practice. The activities involved governments, industry, non-governmental organizations, and donor agencies, in an effort to build confidence and capacity for implementing the Code. An important development was endorsement of the regional code by the ASEAN Senior Officials on Forestry (ASOF) and ASEAN Ministers for Agriculture and Forestry in 2001.

A key element in ensuring coordinated, focused and effective implementation was the development of a comprehensive regional strategy for implementing the Code. Substantial financial support from the Government of Australia and the Government of Japan (provided through the Japan Forestry Promotion and Cooperation Center, JIFPRO), enabled the development of a *Regional Strategy for Implementing the Code of Practice for Forest Harvesting in Asia-Pacific* (APFC, 2000) over a period of nearly 20 months, through a process incorporating substantial consultation and stakeholder input.

The regional strategy provides an overall framework for implementing the Code of Practice for Forest Harvesting in Asia-Pacific. It includes objectives, recommended actions, and anticipated outcomes under eight strategies for implementation.

The eight key components of the Regional Strategy

1. Encourage appropriate public and political support for implementation of the Code.
2. Develop awareness and support for the Code at the regional and national policy-making levels by stakeholders.
3. Develop a forest sector that is educated and trained in Code implementation.
4. Encourage the development and implementation of national codes based on the regional Code.
5. Establish demonstration and training forests.
6. Implement effective monitoring and auditing systems.
7. Facilitate appropriate research activities and directions in support of Code implementation and sustainable forest management.
8. Develop additional tools and guidelines to support Code implementation and sustainable forest management.

A second major strategic element supporting implementation of the Regional Code was the preparation of the *Regional Training Strategy* (FAO, 2001). Representatives of the forestry sector recognized the need to train (or retrain) personnel on the various facets of improved forest harvesting practices before Code techniques can be properly applied. Consequently, the Training Strategy laid a foundation for a comprehensive effort to build a skilled and trained workforce with the ability to implement the Code. It provides guidance for designing training activities and encourages collaboration among countries, to avoid duplication of efforts.

Asia-Pacific national codes – status in a nutshell

The tremendous biophysical, social, political and economic diversity among countries of the Asia-Pacific region requires that each country develop national or even local codes of practice to guide forest harvesting activities. This work has accelerated greatly in the past four years in parallel with the development and implementation of the Regional Code. Table 1 summarizes the status of national codes in the region.

Table 1: Status of national codes in the region (2003)

Implementation status	Countries or states
Formally adopted national codes	Fiji, New Zealand, Papua New Guinea, Solomon Islands, Vanuatu, several states in Australia
Drafted national codes	China, Bhutan, Cambodia, Lao PDR, Mongolia, Myanmar
In process of drafting national codes	Indonesia, Philippines, Samoa, Sri Lanka
Requested FAO support to develop national codes	Pakistan, Vietnam

Source: adapted from APFC, 2000

Additionally, several countries that have existing "harvesting guidelines", are reviewing these to determine whether they need to be revised or reformulated as national codes of practice for forest harvesting For example, Malaysia is developing state-level reduced impact logging guidelines to expand its harvesting guidelines (e.g. Lohuji and Taumas, 1998). The Malaysian State of Sarawak is currently considering the preparation of a code of practice for forest harvesting. Logging guidelines have also been developed for Indonesia by a consortium of partners led by the Center for International Forestry Research (Elias *et al.,* 2001).

How to make a difference

A key question related to codes of practice for forest harvesting is "where to from here"? One path that several countries appear to be taking is the complete banning of all logging in natural forests – most often after these forests have been severely degraded and reduced in area. A second approach – more in line with that promoted by the global community since the Earth Summit – is comprehensive sustainable forest management, including harvesting that considerably reduces environmental impacts. The fact that a number of countries are moving down the logging ban path suggests a lack of confidence

in the rhetoric relating to sustainable management and use of forests – or perhaps a lack of viable tools to support sustainable forest management.

In an attempt to move beyond the rhetoric and into the realm of practicing of sustainable harvesting, several countries have developed, or are in the process of developing, national codes of practice. But, observable improvement in standards of logging and forest management remains elusive. There is still little substantive change on the ground – or, at least, not as much as might be hoped. This suggests the need for much more than simply formulating national codes of practice for forest harvesting. To be effective, a number of additional actions are needed.

1. *Give legal teeth to codes*

At present almost all codes of practice are voluntary, with operators encouraged, but not required, to adopt the recommended techniques and procedures. Compliance with national codes of practice could, however, be made a legislative requirement in countries, which would enforce their uptake and consequently improve harvesting practices. In Fiji, for example, concession agreements contain a clause that requires operators to adhere to the national code upon penalties of law. In addition, as Bennett (2001) has argued convincingly, regulations should directly address forest management outcomes – or impacts – and move away from merely creating a prescriptive, bureaucratic environment that does virtually nothing except produce papers and signatures.

2. *Promote widespread awareness of codes*

Raising awareness of harvesting codes within and outside the forestry sector can be extremely effective in encouraging their adoption and implementation. Within the sector, the code, and other instruments that improve forest harvesting, can be publicized through conferences, seminars and literature.   For example, FAO and numerous partners convened an international conference on reduced impact logging in Kuching, Malaysia, in 2001, which helped to promote the regional code (Enters *et al.,* 2002). Similarly, in China, workshops to promote awareness of the draft national code were conducted in 2003.

Copies of national codes can be widely distributed to facilitate adoption by operators and to enable them to adjust their practices. Raising public awareness on the need for improving forest harvesting and the value of national codes is useful in applying public pressure and moral suasion to non-compliant operators. Publicity for codes of practice is usually carried extensively in the forest industry literature. There is, however, enormous scope for improvement in use of the wider media to promote the positive message brought by codes.

3. *Update national codes regularly*

National codes should be "living" documents. Better harvesting techniques and new technologies for different types of forests and on different types of terrain are still

emerging. Consequently, codes should be field-tested across a wide variety of situations and refined/updated to ensure they reflect best practices and necessary modifications. A number of countries (e.g. China and Myanmar) are currently testing their draft national codes. Other countries, such as Solomon Islands, have "simplified" their code. At the same time, there is considerable potential in making codes and guidelines more user-friendly and easy to for field-workers to understand.

In updating and improving codes, it must also be borne in mind that codes and reduced impact logging – while arguably necessary components of sustainable forest management – are not in and of themselves sufficient to ensure the long-term sustainability of forests. In fact, we have only a very rudimentary understanding of where and how codes and reduced impact logging fit in with sustainable forest management, apart from knowing that they are important. Generally we look at reducing the impacts of logging, but without properly specifying the extent to which impacts must be reduced to constitute sustainable forest management. It can be argued that, for many forest types, sustainable forest management will require almost zero impacts (Leslie, 2001), which would necessarily requires new and improved silvicultural prescriptions. These will likely include reducing harvesting intensity and thus increasing the unit costs of logging operations (Sist *et al.,* 2003). Conversely, in forests where the most commercially valuable tree species are light demanding, sustaining timber yields may actually require increasing logging intensity and frequency, along with other silvicultural interventions such as vine cutting and soil scarification (e.g. Fredericksen *et al.,* 2003).

4. *Provide training muscle*

At the very core of code implementation is the availability of skilled logging personnel at all levels (Dykstra, 2002). If the labor force is unaware of best practices or does not know how to implement them, then obviously codes cannot be effective. People need to have appropriate skills and tools to do the job. The establishment of demonstration sites is important in this regard. The Sarawak Timber Association (STA) began tackling the problem by training tree fellers in 2000, followed by tractor operators in 2001 (Kho and Chan 2001). STA is currently expanding its training to cover other aspects of forest harvesting. Similarly, the Forestry Department of Peninsular Malaysia developed a Mobile Training Unit that offers courses in basic chainsaw operations and directional felling (Lund and Jacobsen, 1999). The Centre for Forestry Education and Training in Indonesia, and the Tropical Forest Foundation are targeting training needs along with information dissemination and production of procedures manuals. These activities have received broad support – from, among others, ITTO, FAO, GTZ, and the Governments of Japan, USA, Denmark and Australia.

5. *Improve assessment of economic impacts*

Greater effort needs to be directed at assessing the economic impacts of adopting codes of practice and reduced impact logging (Enters and Durst, 2002). Costs and benefits need to be clarified in terms of both short-term and long-term profitability. This would allow operators to clearly identify the financial implications of implementing better techniques.

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It would also enable policy makers to identify appropriate policy measures that encourage and reward the adoption of improved practices – rather than firms being punished by having to absorb higher costs and lower profitability. There are obvious social/environmental benefits to be gained from implementing better practices – and innovative ways can be found for firms to be rewarded for implementing such practices.

A new tool that has been developed to help assess the financial implications of alternative logging practices is RILSIM – a financial analysis software package developed by the Asia-Pacific Forestry Commission (Dykstra, 2003). The software is designed to help loggers, government foresters, policy makers and the private sector better understand the financial implications of applying reduced impact logging practices. This is important because there is presently little confidence in the results of existing studies comparing the financial viability of reduced impact logging with that of conventional logging. Real costs generally depend on a number of location-specific factors including topography, markets for inputs and outputs, scale of operation and the costing methods applied. This ambiguity helps to explain the hesitation of many governments and logging operators to commit to the adoption of reduced impact logging practices.

6. *Build and demonstrate political commitment*

Overarching all the other actions required to implement national codes effectively is government commitment. The evident deforestation and forest degradation continuing in many countries of the region, could rapidly be minimized – if not eliminated – if countries had sufficient political will to seriously implement policies, enforce legislation and undertake additional measures, across the board, to:
- curtail illegal and unsustainable logging;
- control agricultural encroachment;
- guide the expansion of plantation forests and estate crops such as rubber and oil palm;
- eliminate incentives that encourage the deliberate setting of fires to clear forest land for other purposes; and
- appropriately regulate the development of roads, dams, and other infrastructure affecting forests.

The key is better governance and it is essential particularly to reduce or eliminate illegal logging, which undermines not only the incentives for improved harvesting but for all legitimate forest management practices. Governments need to seriously support the adoption and implementation of codes of practice, along with other aspects of sustainable forest management. Merely paying lip service to the concepts is not enough. But, this is a job that transcends the forestry sector alone. The commitment must come from the highest levels of government.

Enhancing sustainable forest harvesting in Asia – an example

A significant initiative addressing most of these aspects is FAO-executed project *Enhancing sustainable forest harvesting in Asia* (Project GCP/RAS/192/JPN) funded by the Government of Japan. This project is being implemented in Lao PDR, Myanmar and

Vietnam, with an overall objective of enabling the government and people of these countries to achieve economic and environmental benefits of sound forest management. The project also seeks to strengthen capabilities to implement reduced impact logging and to promote the concept and practices of Sustainable Forest Management. Principal activities include:

- development and refinement of national codes;
- production of guidelines for implementation of national codes;
- establishing demonstration sites;
- providing training for effective implementation of reduced impact logging and sustainable forest management; and
- promoting official adoption of national codes and guidelines and support for field implementation.

Conclusions

One point should stand out – it is not necessary to ban logging *per se*, the ban needs to be on bad logging – what, in addressing the participants of the Reduced Impact Logging Conference in Malaysia in 2001, Alf Leslie called "the mess" currently pervading forest harvesting (Leslie, 2001). While some individuals argue that the only way to protect forests from destruction is to ban all forms of timber harvesting, economists point out that if timber production were to cease, tropical forests would be viewed by most governments and individuals as a resource of little value. Forests would – at least most profitably – be converted to other productive uses. Thus, there are a growing number of pragmatists promoting improved management, including sustainable use, of the vast tracts of forests that will likely remain outside of formal protected forest areas. The contention is that improved logging can greatly reduce damage to forests, and help maintain a natural resource, the productive and sustainable use of which is important to many national economies and millions of local people. The key challenge is achieving this laudable objective.

This paper began by identifying a range of tools, mechanisms and instruments that have been developed to support sustainable forest management. These included development of criteria and indicators for sustainable forest management, certification, reduced impact logging and codes of practice.

In each of these cases, development of the tool has proven to be the easy part, but effectively putting them into practice has proven more challenging. With each of these tools, the developmental phase has been completed and supporting calls for action have been drafted by international forums such as Intergovernmental Panel on Forests (IPF), Intergovernmental Forum on Forests (IFF), United Nations Forum on Forests (UNFF), etc. But, many initiatives have stalled at this point. Systems and processes have been established, but there is no clear path toward to implementation. Meetings and guidelines alone will not achieve sustainable forest management. Nor will waiting endlessly for a perfect set of guidelines. What is needed is not more rhetoric, but strong, forceful and vigorous action. There is already enough knowledge and resources to proceed

aggressively, to demonstrate that the forestry sector is not indifferent about the future of the region's natural forests and the people who depend on them.

It is appropriate, therefore, that this consultation focuses on implementation. Discussion needs to focus on concrete actions that are being taken – or need to be taken – to utilize codes of practice effectively to ensure that sustainable forest management becomes a reality.

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