

Environmental Studies FACTSHEET



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Number 47

How can we save the forests?

Window Blinds - Fantastic Offer!

Q: Suggest how, by saving money on your window blinds, you can help make Orang-utans extinct....

Conservation begins at home. This Factsheet will:

- Outline how buying cheap blinds in Colchester can help to wipe out Orang-utans in Borneo.
- Discuss the problems of trying to manage Tropical Forests sustainably.

From September to November of 1997, and then again in 1998, raging fires in Indonesia (Fig. 1) devastated an area the size of Costa Rica. The lives and health of 70 million people were jeopardised and species already endangered, such as orang-utans, rhinos, and tigers, were pushed closer to extinction. The fires were deliberately caused by timber and plantation companies clearing land for timber or oil palm plantations.

Tanjung Puting National Park is located in the province of Central Kalimantan, Borneo (see Fig. 1) and is a conservation area of global importance. A world Biosphere Reserve, its 400,000 hectares form the largest protected area of swamp forest in South-East Asia.

Despite much of the park being permanently waterlogged it contains a number of commercial tree species including Meranti (*Shorea spp.*) and Ramin (*Gonystylus spp.*). It is home to a huge variety of wildlife, including over 200 bird species, 17 reptile species and 29 mammal species, many of which are endangered, including the estuarine crocodile, clouded leopard, Malayan sun bear and Storm's stork.

But this National park is under siege - hemmed in by rapidly-expanding oil palm plantations, waters polluted by mercury used in gold mining, forest fires deliberately set by loggers and illegal logging encouraged by timber companies and sawmill owners

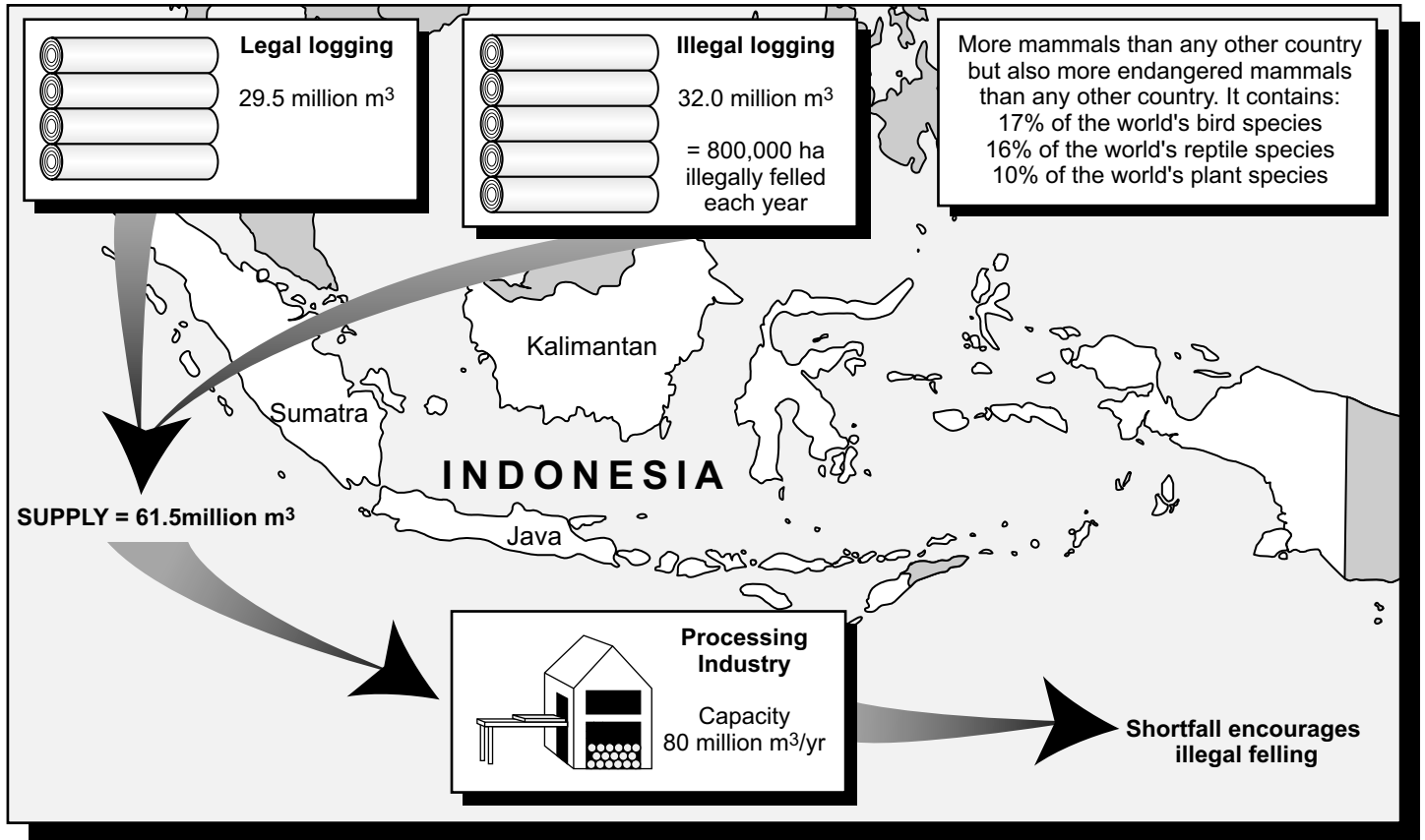
Ramin (*Gonystylus spp.*)

- The Ramin is a tropical hardwood found in swamp forests
- It is only found in Borneo, Sumatra and Peninsular Malaysia
- All 27 different species of Ramin are classified as vulnerable.
- It has low regeneration rates and is never successfully cultivated in plantations
- Wood is light, blond, straight grained
- Main uses include furniture components and veneers, futon beds, dowels, and mouldings such as skirting, picture frames, wooden toys and window blinds
- The vast majority of Ramin is exported to the USA, Taiwan, Japan, Singapore, Hong Kong, USA, Italy and the UK
- The illegal logging in a supposed protected area is out of control

Fig. 1 Map of Indonesia and the surrounding islands.



Fig. 2 Indonesian Forestry.



The situation in the National Park is mirrored across almost the whole of Indonesia. The forest industry is destroying Indonesia's biodiversity (Fig. 2).

The companies that set fire to the forests did so because they want to create plantations of those timber tree species that Western consumers (e.g. Colchester/Truro/Kensington/Windermere) want in their homes. Some of the Ramin that has already been harvested from Indonesian forests is undoubtedly now hanging as window blinds or picture frames or being used as snooker cues in homes in all four of the areas just mentioned, as well as in homes across Europe and the US. It can be made into cheap products (i.e. cheap to wealthy Western consumers) because it has been harvested illegally, processed using cheap peasant labour and exported in huge volumes.

But every time we buy a product made from tropical timbers like this, we are providing a huge economic incentive for Indonesian companies to set more fires.....

Agencies such as the United Nations, the Forest Stewardship Council and the Food and Agricultural Organisation are making great efforts to encourage sustainable forest management in the tropics. But progress is slow and some foresters believe it may be impossible.....

Sustainable management of tropical forests?

Sustainable development is probably best defined as that which meets the needs of the present without compromising the ability of future generations to meet their own

Every year, 143,000 km² of tropical moist forest are destroyed with a similar area being degraded or severely disrupted. Of this, logging directly affects between 45,000 km² and 50,000 km².

Although loggers often 'selectively fell' a few preferred species, the process is often immensely destructive. To remove only two or three trees per hectare, logging equipment often destroys over 50% of the forest trees that aren't wanted.

This prevents natural regeneration and the forest, if it recovers at all, is substantially altered.

To satisfy the demand for tropical timbers, the logging industry continues to exploit virgin rainforest in search of the mature, valuable and aesthetically pleasing species such as teak, mahogany and rosewood. Logging roads and extraction tracks open up previously inaccessible areas to shifting cultivators and landless migrants who follow such routes into new areas and may clear the forests permanently.

For a management activity to be sustainable we must be able to repeat it over and over and get the same level of output every time. In terms of timber extraction this might mean we would get:

- the same volume of timber each harvest
- or
- the same monetary value of timber each time

Imagine a hectare (100m x 100m) of virgin tropical forest:

- 200+ tree species
- hundreds of other plant species
- thousands or tens of thousands of animal species

At first harvest, 12m³ (12 tonnes) of species A is removed - none of the other 199 tree species are in demand by consumers in Europe, so they are left behind. However, many of the trees are damaged or killed by falling trees and by the winches and logging trucks.

To get this volume of timber at second harvest, the logging company either has to replant the area with species A, and wait 70-200 years, or completely clear the area and plant just species A - in other words, create a plantation. Trees grow faster in plantations so they will only have to wait 50-60 years.

With either of these options, the complexity of the original forest is lost.

So, **sustained yield** does not necessarily equal **sustainability**.

Logging like this ignores the other functions or roles of the forest - watershed protection, soil conservation, provision of food and materials for local populations.

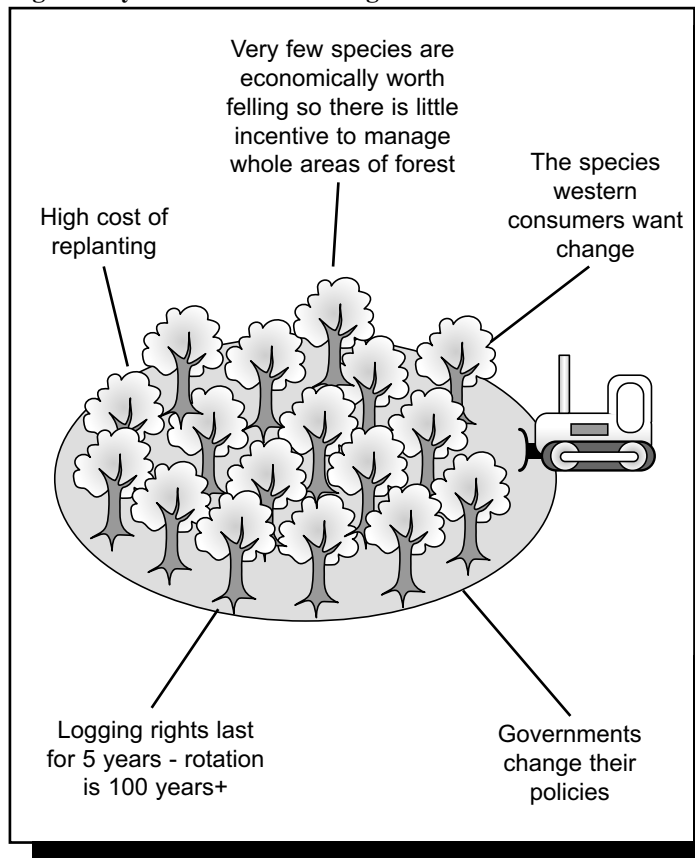
In fact the International Tropical Timber Organisation (ITTO) believe that it is not yet possible to demonstrate that any tropical forest anywhere has been successfully managed for the sustainable production of timber. This is because it is impossible to prove this until a managed forest is in at least its third rotation - its third cycle of growth after having been harvested twice. In practical terms, this means managing the forest for another 200 years or more (Table 1).

Table 1

Species	Rotation length (time from planting to harvesting)/years
Mahogany	97
Iroko	154
Aformosia	240

Many logging companies only have "rights" to log in an area for 5 years. After that, they must find somewhere else to log. There is therefore no incentive for them to take care when logging and they are definitely not going to do things **now** for the benefit of someone else in 200 years time. This is just one of the reasons that the tropical forests are not being managed properly (Fig. 3).

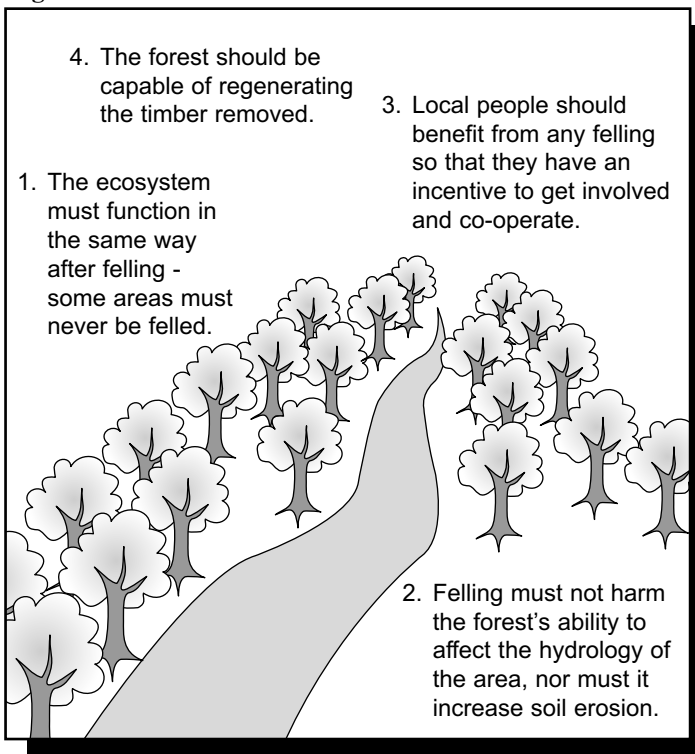
Fig. 3 Why is sustainable management difficult?



Sustainable management

There are 4 criteria which need to be met for an area of TRF to be managed sustainably (Fig. 4).

Fig. 4



Internationally, many agencies are working towards this form of management and in some countries it is working. However, in Indonesia it is not. If we want to see the orang-utans and clouded leopards survive and the exploited native people of the forests to reap real benefit from their country, we can make a start by refusing to buy cheap blinds, picture frames and snooker cues.

Typical Exam Questions

1. You are not expected to know about the problems in any one country - you could use Indonesia as an example in the essay question though
2. You should understand some of the reasons why sustainable management of forests is difficult
3. You may be asked to suggest how events on opposite sides of the planet are linked, e.g. buying blinds in Barnsley and smog in Jakarta.

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