



Philippine Endemic Species Conservation Project

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A Plea for Total Commercial Logging Ban Bill

THE recent rain-driven floods in Manila and elsewhere prompted us to contribute to the debate on a total logging ban. It is now agreed that those disastrous floods, with their heavy toll of human lives and livelihoods, are caused in large part by the loss of forests that amounts to now over 80% for the country as a whole. Therefore any measure promoting further loss of this buffer against flood calamities should be assessed with the greatest care and objectivity.

Since 1993, the Philippine Endemic Species Conservation Project (PESCP) of the Frankfurt Zoological Society (Germany) endeavours to help preserve the remnants of the native forest on Negros and Panay islands (PESCP Headquarter: Staff house, Brgy. Bulanao, Antique; e-mail: zgcurio@lasaltech.com). In the process, conservation-oriented research and hands-on conservation management, including support of grass-root moves of the local population, has been conducted with the diligent support of both the DENR and LGUs. AS a result we have obtained insights into the functioning of Visayan forests as ecosystems of potentially countrywide applicability (see below).

Given the countrywide demise of Philippine native forests, we are deeply concerned with a critique of 'Total Commercial Logging Ban Bills' in a national newspaper of November 1999 [Alternative: *Philippine Daily Inquirer* of 15 November 1999, p. B10]. We want to deal with this critique in the following because most of the points raised are ill-founded.

The authors of the Forestry Development Center (FDC) of UPLB College of Forestry and Natural Resources claimed that 1.) logging is not the major cause of deforestation; 2.) Philippine forests regenerate readily after logging; 3.) logging will not decrease biodiversity; 4.) economic losses due to forest protection cannot be tolerated; and 5.) forest protection through a logging ban cannot easily be implemented. They conclude that the current logging ban should be lifted to allow commercial logging operations in the Philippines. The critique is inconsistent with its use of the term 'commercial logging', thus blurring the distinction of licensed and illegal logging, and builds on 'grey literature' that is neither traceable in the international data banks, nor available in peer-reviewed journals. Furthermore, they rely heavily on research by an organization that has a vested interest in both the extraction of timber from forests and the maintenance of the associated licensing mechanisms. We are concerned that they ignore both basic ecological findings having a bearing on logging tropical forests, and vital environmental aspects. Here we take issue with most of the critique, thereby advocating a total log ban as initially defined by the FDC.

The FDC defines commercial logging as 'any cutting, felling or destruction of trees by which any benefit, gain and profit can be derived, including the *individual farmer who when cutting trees, is saving 'on construction materials' (our italics) for building his home, for example.*

1st Claim: Commercial logging is not the major cause of defores-

tation

By implication, the FDC here narrows down its own definition of 'commercial logging' to legalized logging operations. This new definition leaves out the enormous rate of illegal logging for private purposes, included in the original definition. The new definition is used to belittle the rate of deforestation in the Philippines. Accordingly, a ban on 'commercial logging' would reduce the annual forest destruction by a mere 5%. i.e. the licensed fraction covered by TLAs. By thus redefining 'commercial logging', the FDC pretends to demonstrate that a total log ban would not hit the 95% of annual forest destruction and would therefore be inconsequential to salvaging the remnants of the once magnificent forests of the country. This twist or argument is clearly little helpful in an issue as serious as the wholesale destruction of Philippine native forests. Yet even following this twist leaves no room for complacency. In a country that has already lost more than 80% of its native forest, every hectare exempted from logging would mean salvaging national heritage. With TLAs running till 2011, the forest area to be logged 'commercially', i.e. under licenses as redefined, is substantial. In absolute terms, this loss is by no means dwarfed by pointing to the fact that 95% of the total loss is due to poverty-driven landscape development. A ban on commercial logging would therefore reduce the annual forest loss, though possibly not in proportion to its present contribution to the total loss. Given the accuracy of a rate of 95% non-commercial, i.e. illegal, loss only a total logging ban in the broad sense (original FDC definition) would uphold the disastrous ongoing destruction.

2nd Claim: Philippine forests regenerate readily after logging

Nowhere has logging been sustainable in the sense of afflicting no change to the forest ecosystems as a whole (Struhsaker, 1988, Bowles et al. 1998, Loreau & Olivier 1999, see also Kürpick et al. 1997), except for logging in timber plantations (Bowles et al. 1998). Particularly complex tropical forest ecosystems are unlikely to return to their original state for long periods of time, because biological processes are disrupted. A study by Hartshorn & Bynum (1999) provides a good example for a comparable Bornean forest (with 70% canopy tree biomass of Dipterocarpaceae, the major target of harvesting). They found that even forest areas of large sizes (90,000 ha) do not regenerate when being adjacent to logged-over areas. The seeds and seedlings are being eaten by predators (mammals and birds). Being deprived of their food sources in the logged-over areas, these consumers congregate in the still remaining forest plots and over-exploit the seed rain that comes in periodical 'masts' of synchronous fruiting of many tree species. Such intricate animal-plant-relationships have been completely left out by the authors of the comments at stake.

Even the relatively careful practice of selective logging, i.e. the extraction of particular high value timber tree species is inflicting substantial harm on the rest of the forest. Selective logging that removed only 3.3% of oldgrowth mature forest trees destroyed

50.9% of Malaysian dipterocarp forest (Johns 1988). Pioneer trees will take their place but it will take decades or centuries until the original late-successional climax stage has been attained again. To argue that the gaps will be closed within 5 years is beside the point, because the fast growing species that flourish in these gaps are not the valuable timber species (such as Dipterocarps) that have been logged in the first place. Even after 50 years, the still young-forest is still vastly different in species composition from an old-growth climax forest in the Philippines (Hamann et al. 1999).

A second problem is that the selective logging operations advocated by the authors are not easy to implement. Selective systems require very high skills from harvesting operators and high tech equipment to avoid damage to recruiting trees. Even a few scratches in the bark of recruiting trees spoil their value in commercial terms because fungal infections will deteriorate wood properties. In species rich forests it also requires complex stand inventories, modeling of population dynamics etc. to implement a sustainable harvesting regime. It is proven in theory and fact that selective systems are one of the most difficult forestry operations, and they have regularly failed in practice even in comparatively simple temperate forests (Nyland 1996).

3rd Claim: Logging will not decrease biodiversity

The authors quote as fact, building on a study by the ITTO, a timber extraction interest group, that the biodiversity index had returned to almost that of virgin forest within 25+ years after logging. We cannot access and examine the report quoted (no publisher), but many studies could have been quoted by the authors that find the opposite. There is good evidence that even in extensive forest (e.g. Malaysia, Brazil) logging is not sustainable in the sense of not impoverishing biodiversity (Struhsaker 1998, Bowles et al. 1998). In fact our own quantitative data from a Negros forest area demonstrates that the species composition and number, and hence biodiversity (that encompasses species number) had not yet attained the original, i.e. virgin forest level, even 50 years after logging (Hamann et al. 1999).

Further, it should be kept in mind that maintenance of biodiversity in trees does not implicate the health of the ecosystem as a whole. If tree species are logged in roughly the same proportion as they naturally occur, biodiversity indices will not change even if 95% of the trees are logged. Further, a decrease of biodiversity by logging rare species, can be compensated for by logging more frequent species, which is just a consequence of how these indices are calculated. But what happens to the animals that are the consumers of the removed species, being specialized and dependent on them? Having much shorter life-spans than these trees, e.g. birds and mammals, they would not survive long enough to experience the regrowth of their food resource that may take several hundred years (see also Johns 1988).

Conversely, the dying out of

animals benefiting the plants is another far-reaching disastrous effect of logging. In the country, it is exacerbated by rampant poaching of all edible wildlife. This speeds up the looming extinction of important benefactors, e.g. hornbills and pigeons, that are indispensable seed-dispersers. Up to 60% of the tree species depend on seed dispersal by animals (Hamann & Curio 1999). Furthermore, logging opens up the forest so that hunters access even the remotest parts and contribute to local or even global extinction of animal species (Robinson et al. 1999). Furthermore, the degree of regional deforestation is a good predictor of the disappearance of bird species in SE Asia (Brooks et al. 1997). And extinction of species i.e. loss of biodiversity, is an irreparable damage. Such loss is most likely where local endemics (species restricted to a particular region), e.g. single-island endemics, are at risk. The Philippines are at the fore-front of harbouring global endemics of birds and mammals, let alone other animal groups. And this unrivalled degree of endemism is endangered disproportionately. With 32% of its resident bird species the country triples the world average of endangerment of birds (Collar et al. 1994). Any further logging would dramatically add to the demise of this national heritage.

4th Claim: Economic losses due to forest protection cannot be tolerated

Yes, you can make money and generate some jobs for a while by cutting whatever is left. We cannot believe however, that it is in the long term interest of the Philippine people, to endanger their natural heritage and biological resources for the sake of short term economic benefits. The arguments in this section, namely a high demand for timber, seem to suggest that intensive plantation forestry on a commercial scale should be an alternative in the Philippines to make money and create jobs.

5th Claim: Forest protection through a logging ban cannot easily be implemented

We believe that what is said by the authors is correct and based on valuable analysis. A conservation strategy should surely have the following elements: (1.) Protected areas that capture species and ecosystem diversity; (2.) Adequate information about laws and enforcement of laws; (3.) Alternative livelihood provisions for those who threaten key protected areas; (4.) A highly efficient plantation system to satisfy marked demand for wood products and to release the pressure to harvest in natural stands; (5.) Responsibility for implementing conservation in the hand of government agencies or interest groups that are independent from agencies or interest groups that use resources. Conserving the remaining forest ecosystems in the Philippines is a complex issue in theory and even more difficult to implement. The authors themselves make a solid case for the fact that the forest resources in the Philippines are highly threatened. Improvement of the current situations will not be accomplished by re-introducing commercial logging to the list of threats to Philippine forest ecosystems.