The overwhelming majority of commercial forestry operations in Papua New Guinea are illegal, environmentally unsustainable and provide little benefit to the country, according to a report to be published on Wednesday.

The study, issued by Forest Trends, a US-based lobby group, is based on the findings of 63 individual reports on timber activity on the Pacific island commissioned by the World Bank and the PNG government which were conducted between 2000 and 2005.

The review teams gained access to official records and logging sites and interviewed industry officials and landowners. The 63 studies covered a logging area of 3.2m hectares which, in 2004 alone, produced output with a declared export value of US$70m.

The PNG logging industry is dominated by Malaysian-owned companies, whose primary export markets are China, Japan and Korea. Many of the processed logs are later exported to Europe and the US.

According to Forest Trends, none of projects studied were deemed legal. The findings also reveal corruption and a lack of governance over illegal logging, despite the existence of laws to prevent the practices.

The report alleges that the forests are not being managed to maintain a sustained yield of timber, with many areas effectively “logged out”.

Cash-strapped PNG, one of the world’s most unstable countries, derives US$30m a year from the timber industry and Forest Trends warned that the government risked an international boycott of its timber.

Michael Jenkins, president of Forest Trends, said: “We hope this report sends a message to the PNG government to enforce the laws to protect the forests and their communities.”

Mr Jenkins called on China to “take a global leadership role” and establish green procurement policies, ensuring that all wood for the 2008 Beijing Olympics came from verified legal sources. He urged China, Indonesia and Malaysia to co-ordinate regional detection of illegal timber.

A spokesman for the PNG government could not be reached for comment on Tuesday. The Malaysia Timber Council withheld comment as it had not read the report, and said that it was anyway unlikely to offer a judgment on timber operations outside the country.

Meanwhile, Rainbow Warrior II, the Greenpeace ship, on Tuesday docked in Port Moresby, the PNG capital, to draw attention to large-scale destructive logging.

According to Greenpeace, more than a quarter of a million hectares of PNG’s primary forest is destroyed by logging companies each year and the lobby group has embarked on a series of initiatives to promote small-scale sustainable production.

Less than 1 per cent of the Asia Pacific’s so-called “Paradise” rainforests, stretching from Indonesia to the Solomon Islands, are protected from commercial forestry.

Steve Shallhorn, chief executive of Greenpeace Australia Pacific, said: “Unless action to stop destructive logging is taken, species will become extinct, rainfall patterns will be disrupted and the global climate will change even faster than it is now.”