



# Smithsonian Institution

15 February 2005

José Eduardo de Barros Dutra  
President and Chief Executive Officer  
Petrobras  
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Dear Sr. Dutra:

We are writing as scientists of the Smithsonian Institution who have been actively engaged in biological research for more than a decade in Yasuní National Park of Amazonian Ecuador. The purpose of this letter is to offer you our scientific knowledge and experience with roads in previously undeveloped tropical forests in Yasuní and elsewhere in South America. In particular, we would like to take this occasion to comment on Petrobras' plans for accessing the Block 31 oil concession in the eastern portion of the park.

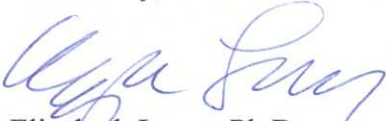
It is our understanding that the primary means of reaching the Petrobras concession will likely be along a new road that will cut through currently undisturbed forest, including 24 kilometers into Yasuní National Park. Although a road by itself requires the removal of thousands of trees, the environmental impact will likely extend far beyond that. The road will open access to farmers, hunters, and loggers who will likely remove trees, clear large areas of forest, build houses, and hunt large animals both for food and for commercial trade. These impacts have been documented along the Via Maxus, a road crossing the northeast section of Yasuní, and are not sustainable over the long-term. Moreover, the impact of fragmenting the forest with roads will likely diminish the ability of the forest to sequester carbon and change hydrological cycles, thus negatively affecting global climate. For these reasons, we stress the need for protecting large areas of unbroken forest in order to reduce species loss and avoid ecosystem deterioration.

Smithsonian research, carried out in conjunction with Catholic University of Ecuador, has shown that Yasuní National Park is a remarkably biodiverse region by any standard, and we do not mean this figuratively or approximately. Based on extensive standardized tree studies in 15 countries across all continents, we can demonstrate that Yasuní appears to be one of the four or five most diverse forests in the world. Smithsonian research has also shown that Yasuní has more than 100,000 species of insects per hectare, more than has been documented anywhere else in the world. Another Smithsonian study found that Yasuní has 64 species of social bees, the highest diversity for any site in the world. Other scientists estimate that Yasuní has at least 173 mammal species, representing 40% of the total number of species found in the entire Amazon Basin. This is remarkable, considering Yasuní's area represents only one-tenth of one percent of that of the Amazon Basin. This forest is recognized as a biologically rich treasure for good reason.

We realize that oil resources are valuable, and we recognize the need for Ecuador and Petrobras to expand development near Yasuní. We hope that, in doing so, you will take into account the local, regional, and global environmental costs of road construction. We strongly recommend that you consider a no-road policy in order to maintain the biological and environmental integrity of the area. Our experience providing scientific advice to energy companies in Peru and the Congo Basin indicate that leadership by Petrobras to reduce negative environmental impacts and increase positive ones could provide significant benefits for Ecuadorian biodiversity and its people over the long-term. Good science-based decisions and a monitoring program can help reduce long-term costs and uncertainty. Such a commitment to sustainable development could also result in tangible benefits for Petrobras.

We would be happy to discuss this issue further with you and your team.

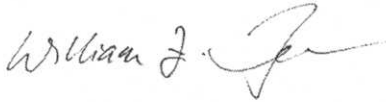
Yours truly,



Elizabeth Losos, Ph.D.



Richard Condit, Ph.D.



William Laurance, Ph.D.

William Laurance, Ph.D.



Louise Emmons, Ph.D.

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David Roubik, Ph.D.

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Francisco Dallmeier, Ph.D.

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