

Conservation Recap

Noble Plantations Pte Ltd.

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PT. Henrison Inti Persada Conservation Department (HIP-KON)

HIP Conservation now fields a permanent team of three professionals to cover the broad conservation requirements of the plantation, document local landscape biodiversity and attend to community needs, especially concerning traditional uses of the forest.

For the plantation-related side, the team has concentrated on the conservation of existing forested reserves, and the redrawing of boundaries in areas where earlier development completely eliminated forest habitats. Boundary markers and conspicuous signage identify areas to be conserved or re-forested.

For documentation of natural species, wildlife inventories are conducted weekly in PT. HIP's permanently forested conservation reserves through direct observations, mist netting and camera trapping. Numerous unusual species remain abundant within the PT. HIP Conservation areas, among others hornbills, parrots, birds-of-paradise, and more than 100 other remarkable species of birds. Camera traps, ground and aquatic surveys provide photographs of otherwise rarely seen arboreal marsupials (Cuscus), pointy-nosed bandicoots, endemic kangaroos and beautiful species of small fish. Data on the existence, distribution and abundance of these species are continuously recorded and reviewed. The local flora of the conservation reserves is documented with the assistance of botanical specialists through formal links with the faculty of the University of Papua (Manokwari) and University Cendrawasih (Jayapura).

Community efforts of the conservation Program rely on regular dialogues and power point presentations on site with workers in local villages, to explain the purposes and philosophy of the PT. HIP Conservation Program.

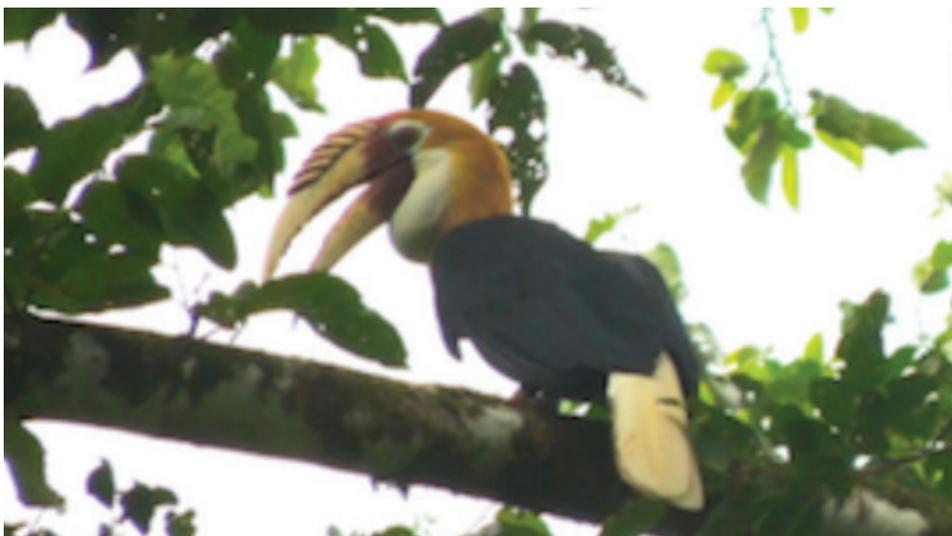
For purposes of restoring damaged Conservation Reserves, approximately 1,500 seedlings of 12 species of forest timber and fruit tree species are produced and kept at the ready in the HIP-KON tree nursery. These stocks of fruit and shade trees are also distributed to workers' emplacements and community villages. These efforts are augmented by conservation presentations at the local primary school, accompanied by beautification of the school grounds from a nursery managed by school staff and students. Brochures and posters on the importance of conservation are distributed to school children and to workers' families in emplacements. In all, the HIP-KON team works daily to achieve a positive perception and better understanding of conservation.



The Common Papuan Cuscus (*Phalanger orientalis*) near Klawilis



Eclectus Parrot (*Eclectus roratus*) in Conservation Reserve, Klamono Estate



The Papuan Hornbill (*Rhyticeros plicatus*) near Kлага Estate



Rainbow fish, popular among aquarium enthusiasts, from rivers in PT. HIP

PT. Pusaka Agro Lestari Conservation Department (PAL-KON)

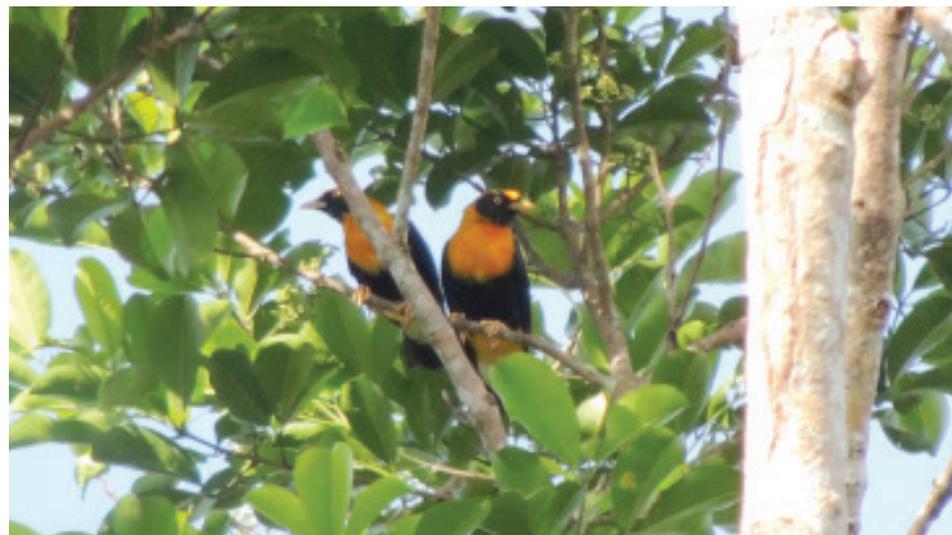
PT. PAL Conservation (PAL-KON) has continued to work on building up the elements of the Conservation Program in what has been a pioneer effort, as the PAL Estates have existed for only a few years. One of the major efforts has been to design Conservation Reserves to protect rivers and to also provide sufficient natural habitats for the rich biodiversity of Mimika Province. An important part of the PAL-KON work is to ground truth previous surveys to ensure that prior to land clearing, sites of conservation importance are taken into account. Drainage is also designed so that rivers can function to irrigate and refresh the planted blocks.

The PAL-KON team records weather parameters including temperature, humidity, wind speed and rainfall, via an automated weather station and two Easylogger automatic data recorders. Water quality, sampled at eight strategically located sites provides valuable feedback (temperature, pH, conductivity and dissolved solids) on the functions of forested riverine areas acting as natural filters for water coursing through planted blocks. Species richness is high within the boundaries of PT. PAL, as demonstrated by camera trapping – on the forest floor or in the canopy. The massive, gaudy Southern Cassowary, too large and dangerous to be captured, is monitored by ground camera traps and individuals of various ages, including chicks, are still abundant in the PAL Conservation Reserves. Mist netting of birds (individuals captured, identified, their physical condition noted, then ringed and released) critically augments PAL-KON efforts to monitor bird diversity, consisting of a broad range of unusual and endemic species (106 so far in 2016). These long-term efforts by PAL-KON staff also provide information on their long-term conservation status.

PAL-KON's Community Program is still a work in progress, first integrating local villagers as Conservation field assistants, and now teaching a regular module on PAL Conservation at the local primary school. Explanation of the Conservation Program also accompanies distribution of fruit and shade tree seedlings (stock to workers' emplacements and local village settlements that are gradually springing up around the work site). A hunting management program for safety, and sustainable use of wild game program, based on Papua's non-native or introduced species such as deer and wild boar, is under development, and will become the best way to monitor consumptive use (sometimes illegal) as well. Plans for involving the community in recycling plastic waste and aluminium cans are under development, but with a PAL-KON team of only three, may be delayed until 2017.



Southern Cassowary (*Casuarius casuarius*) in PAL 2 Conservation Reserve



Superb plumage of a pair of Mynas (*Mino anais*) near their nest, PAL 1



Hornbills (*Rhyticeros plicatus*) in flight above PAL 2



Papua's endemic Olive Python (*Apodora papuana*) from the PAL 2