SHORT NOTE

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Madagascar's proposed domestic rosewood trade undermines species protection and exposes fatal flaws in the CITES regime

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ABSTRACT

Madagascar's proposal to expand its domestic trade in rosewood by allowing the use of logs from its "official" stockpiles, which have been embargoed, undermines international conservation efforts and exposes critical weaknesses in the CITES regime. Despite the listing of all Malagasy rosewood species on CITES Appendix II and the implementation of a trade moratorium, illegal exports of rosewood persist, driven by criminal syndicates exploiting gaps in enforcement and forest governance. The proposal to remove 30,000 logs from CITES jurisdiction, purportedly for domestic use, lacks adequate safeguards to prevent their diversion into international markets and trade. This move threatens to set a dangerous precedent for other countries, potentially facilitating illegal trade in other rare or endangered species. Immediate, stringent oversight and effective enforcement mechanisms are essential to mitigate these risks and uphold global conservation objectives.

RÉSUMÉ

La proposition de Madagascar d'élargir son commerce intérieur de bois de rose en autorisant l'utilisation des grumes provenant de ses stocks « officiels », qui avaient été placés sous embargo, compromet les efforts internationaux de conservation et révèle des faiblesses critiques dans le régime de la CITES. Malgré l'inscription de toutes les espèces de bois de rose malgache à l'Annexe II de la CITES et la mise en place d'un moratoire sur leur commerce, les exportations illégales de bois de rose persistent, alimentées par des réseaux criminels exploitant les failles de l'application des lois et de la gouvernance forestière. La proposition de retirer 30 000 grumes de la juridiction de la CITES, soi-disant pour un usage domestique, ne présente pas les garanties suffisantes pour empêcher leur détournement vers les marchés internationaux illégaux. Cette mesure risque de créer un précédent pour d'autres pays, en facilitant potentiellement le commerce illégal d'autres espèces rares ou en danger. Une surveillance immédiate et rigoureuse, accompagnée de mécanismes d'application efficaces sont essentiels pour atténuer ces risques et maintenir les objectifs mondiaux de conservation.

CONTEXT

Rosewood is one of the most sought-after commodities in the international wildlife and timber trade. The illegal sale in this valuable resource yields more revenue than products derived from elephants, rhinos, and big cats combined (UNODC 2020). Illegal commerce in animals, plants, and their parts generates US\$71-171 billion annually, making it almost as lucrative as trafficking drugs, arms, and people, and usually involves the same criminal syndicates (Anagnostou and Doberstein 2022). Vigilant and unscrupulous criminals take advantage of gaps in CITES policy, capacity, and enforcement—as well as in national implementation, enforcement infrastructure, and legal systems—to trade rare and

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threatened species with little risk of prosecution or confiscation of the seized material (Anagnostou and Doberstein 2022). Left uncontrolled, such trade is likely to drive many species to extinction.

CITES was created to ensure that international trade in wild animals and plants does not threaten their survival. Because of massive illegal trade by criminal syndicates, all of Madagascar's rosewood (Dalbergia spp., Fabaceae) and ebony (Diospyros spp., Ebenaceae) species were listed on CITES Appendix III in 2010 and reclassified to Appendix II in 2013. With this upgrade in the CITES listing of Madagascar's rosewoods and ebonies, a complete moratorium on the sale of these species was imposed. An Action Plan, also adopted by CITES in 2013, which detailed the necessary steps that would have to be taken before Madagascar could resume trading these precious woods. The Plan emphasized understanding the target species' role in trade, assessing their abundance, and establishing infrastructure to control their trade. However, despite the moratorium and the Action Plan, traders in Madagascar have continued to export logs illegally from stockpiles created during the period of civil unrest between 2009 and 2014.

Hery Rajaonarimampianina served as the Minister of Finance and oversaw the General Direction of Customs from 2009 to 2014, during the High Transitional Authority (HAT) period. The HAT was led by Andry Rajoelina, who served as Madagascar's president during this time without having been elected. Rajoelina has since returned to the presidency, serving from 2019 and being re-elected in 2024.

As Madagascar took steps to implement the elements of the Action Plan (Box 1), CITES modified the requirements imposed on Madagascar to acknowledge progress that the country claimed to have made. To date, none of the individual components of the Action Plan have been fully implemented.

On 13 November 2022, at the 75th Standing Committee meeting of CITES, Madagascar announced plans to remove 30,000 rosewood and ebony logs from CITES jurisdiction and make them available to the country's domestic trade. Madagascar stated that the logs would be used exclusively for governmental projects or for the creation of local artisan craft items to be sold in country (Box 2, Figure 1). The handicrafts could weigh no more than 10 kilograms per item and could only be sold in the "domestic" market. The plan did not include any details on tracking the logs removed

from the stockpiles, nor was anything specified which governmental projects could receive allocated logs or how Madagascar would ensure that the logs and handicrafts would not enter the international trade. The removal of these logs from CITES jurisdiction with the glaring omission of any details on their management or the supervision of the domestic trade raises serious concerns as to whether this move would potentially lead to international trade in Malagasy rosewood and ebony, which would be in direct contravention of Madagascar's obligations under CITES.

During the 19th Conference of the Parties (CoP19)—14 to 25 November 2022,—Decision 19.71 was adopted, which reduced Madagascar's commitments under the Action Plan to just one obligation: "to bolster its management of rosewood and ebony stockpiles through measures that include traceability and control systems." Madagascar was also urged to seek financial and technical assistance and to provide regular updates on audited inventories and on progress regarding the development and utilization of oversight mechanisms. At CoP19, the Parties did not act on Madagascar's proposal to expand domestic trade in rosewood and ebony using the country's stockpile because the Chair of the Working Committee stated that the Parties should not take any action as the proposal involved "domestic" trade and, therefore, was not under CITES' jurisdiction. CoP19 therefore left consideration of the proposal to remove these logs from CITES jurisdiction to the 77th Standing Committee Meeting. Updates on Madagascar's progress toward meeting its sole remaining obligation were therefore to be submitted for consideration by the Standing Committee. Additionally, Madagascar was instructed to report progress on implementing these measures to the CITES Secretariat 60 days before both the 77th and 78th meetings of the Standing Committee.

During the 77th CITES Standing Committee meeting that occurred in November 2023 in Geneva, the World Wildlife Fund (WWF), representing several non-governmental organizations (NGOs), called on the Parties to create an intersessional working group to ensure that the expansion of Madagascar's "domestic" trade did not instigate illegal international trade or pose a risk to the remaining living Malagasy rosewood and ebony populations. The United States and the European Union advocated for mechanisms to ensure that the "official" stockpiles are not used to launder freshly cut trees, which would further threaten the listed species. The Committee agreed and decided that the Consultative

Box 1. Rosewood Action Plan

The World Bank prepared a report (Mason et al. 2016) assessing the status and future potential of managing Madagascar's precious hardwoods—species of *Dalbergia* (Fabaceae; rosewood) and of *Diospyros* (Ebenaceae; ebony). The report highlighted the significant role these genera play in both local ecosystems and the global market. Prepared in collaboration with the World Resources Institute and other organizations, the report aimed to support the implementation of the CITES Action Plan, which includes improving species identification, enforcing trade regulations, and managing stockpiles.

The findings revealed significant gaps in scientific understanding and enforcement capabilities that needed to be addressed to ensure the sustainable exploitation and conservation of these valuable species. Key measures recommended included:

- A ban on the trade of rosewood and ebony until Madagascar can properly identify and manage the species being harvested.
- Developing materials to help customs officials identify Madagascar's rosewood and ebony species.
- Conducting audits and securing stockpiles of rosewood to prevent illegal exports.
- Strengthening domestic enforcement capacities to manage forests effectively.
- Providing CITES with regular updates on the implementation of these measures.

The report championed the enhancement of the scientific and regulatory frameworks required for the sustainable management of Madagascar's precious hardwoods. This support was regarded as crucial because of the economic potential these resources hold for Madagascar's development. CITES used these findings to implore Madagascar to comply with international standards by imposing stricter export controls and auditing of stockpiles. These measures aimed to curb illegal logging and trade, ensuring that the exploitation of these resources would not threaten the survival of these species or the ecosystems they inhabit.

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Box 2. Timeline of Key Events Related to Madagascar's Rosewood and Ebony Trade

- 2000 (October): Moratorium on rosewood and ebony export imposed by Madagascar to halt logging and trade from sensitive zones and protected areas.
- 2006 (September): Explicit ban on the exploitation of rosewood (*Dalbergia* spp., Fabaceae) and ebony (*Diospyros* spp., Ebenaceae) issued by Interministerial Decree No. 16.030/2006.
- 2009 (March): Coup d'état in Madagascar, resulting in a surge of illegal logging of rosewood and ebony.
- \bullet 2009–2010: Large-scale illegal sourcing of precious woods from protected areas.
- 2010 (March): Madagascar confirmed a ban on the harvesting of rosewood and ebony through Decree No. 2010-141 of 24 March 2010.
- 2011 (August): Madagascar established penalties for offenses related to rosewood and ebony with Ordinance No. 2011-001 of 8 August 2011 and announced its intention to restrict international trade in five *Dalbergia* species and 104 *Diospyros* species by placing all logs, sawn wood, and veneer sheets of these species on CITES Appendix III.
- 2013 (March): All Malagasy species of *Dalbergia* and *Diospyros* were listed on CITES Appendix II and a complete moratorium on the sale of these species was imposed, alongside the adoption of an Action Plan by CITES outlining steps Madagascar had to take before the moratorium on trade in these species could be lifted.
- 2016 (January): Preliminary findings from an ongoing stockpile audit were presented by Madagascar at the 65th CITES Standing Committee meeting.
- 2019 (August): During CITES COP18, controls on trade in Madagascar's Dalbergia spp. and Diospyros spp. were discussed in depth and reaffirmed.
- 2022 (November): At the 75th Standing Committee meeting, prior to COP19, Madagascar announced its plan to remove 30,000 rosewood and ebony logs from CITES jurisdiction by creating a domestic trade to utilize these logs.
- 2022 (December): During the 19th Conference of the Parties (CoP19), Decision 19.71 was adopted, reducing Madagascar's obligations under the Action Plan to only one requirement: management of its rosewood and ebony stockpiles through practical measures, including traceability and control systems.
- 2023 (November): During the 77th CITES Standing Committee meeting, several NGOs called for the creation of an intersessional working group and the implementation of mechanisms to ensure that the official stockpiles are not used to launder freshly cut trees. The Committee adopted a decision to reconvene the Consultative Group, which was to be created after CoP18 to oversee the use of the stockpiles. This decision expanded the Consultative Group's mandate to include supervision and control of Madagascar's domestic trade in rosewood and ebony.
- 2024 (September): The CITES Secretariat has thus far failed to implement the decision of the 77th CITES Standing Committee to reestablish the Consultative Group and specify its mandate and membership. Currently, no oversight of Madagascar's domestic trade is taking place.

Group, created after CoP18 would be reconvened to oversee the use of the stockpiles and the protection of Madagascar's rosewood and ebony species.

The Consultative Group's purpose is now to ensure that Madagascar's official stockpiles are secured to prevent them from being used to launder logs from "undeclared" and "hidden" stock-

piles or from freshly cut trees. Additionally, the Consultative Group must enable Madagascar to better understand the species in trade and to assess whether legal national trade in its rosewood and ebonies is actually possible without spurring illegal international trade. The Consultative Group's initial mandate did not, however, include oversight and control of domestic trade to ensure that it does not have implications for the control of international trade imposed by CITES, which must be added. To date, the Parties are still waiting for the CITES Secretariat to implement the decision taken at CoP18 and to propose, adopt, and publish the Consultative Group's full mandate and announce its membership. The NGOs that proposed the intersessional working group have called for NGO representation in the Consultative Group.

MAIN CONCERNS

Madagascar's "domestic" trade proposal has shed light on a significant flaw in the structure of CITES, one that could easily serve as a model for avoiding CITES restrictions on trade and undermine CITES' protection of rare and endangered species from the impacts of international trade.

Some of Madagascar's endemic rosewood species are prized for the deep red color of their heartwood. Criminal syndicates, including Chinese rosewood furniture manufacturers, will most certainly jump at the opportunity to exploit Madagascar's domestic trade unless CITES acts to ensure that:

- all necessary steps have been implemented to control domestic trade, including identifying the species in trade, assessing the occurrence and abundance of the exploited species, and understanding whether any sustainable trade of selected species is feasible after the preparation of a properly prepared and formulated non-detriment finding (NDF);
- the official stockpiles are secured in a single controlled location and overseen by an independent, third party approved by the CITES Secretariat;
- all logs removed from these stockpiles are tracked to ensure that they are used exclusively for approved purposes;
- all logs in domestic trade are prevented from being diverted to the international market.

The delay in operationalizing the Consultative Group approved by the Standing Committee at its 77th meeting in November 2023, leaves the stockpiles wide open to illegal trade. The delay also increases the temptation to launder logs from other stockpiles and it could lead to felling additional rosewood and ebony trees. The main concern is therefore that Madagascar's proposed domestic trade, if conducted without appropriate safeguards, could facilitate the illegal international market (cf. Wilmé et al. 2020).

DISCUSSION

To date, despite significant advances in the understanding and description of Madagascar's rosewoods (*Dalbergia* spp.) and ebonies (*Diospyros* spp.), there is still no clear information on which species are being traded, nor is there an accurate assessment of the population status of these species. Consequently, Madagascar cannot prepare a non-detriment finding (NDF) to assess the potential impacts of international export of any of these precious wood species. Moreover, since these key information gaps remain, Madagascar has been unable to produce customs materials and comprehensive forensic tools that would be needed to determine whether exports of rosewood and ebony involve NDF-

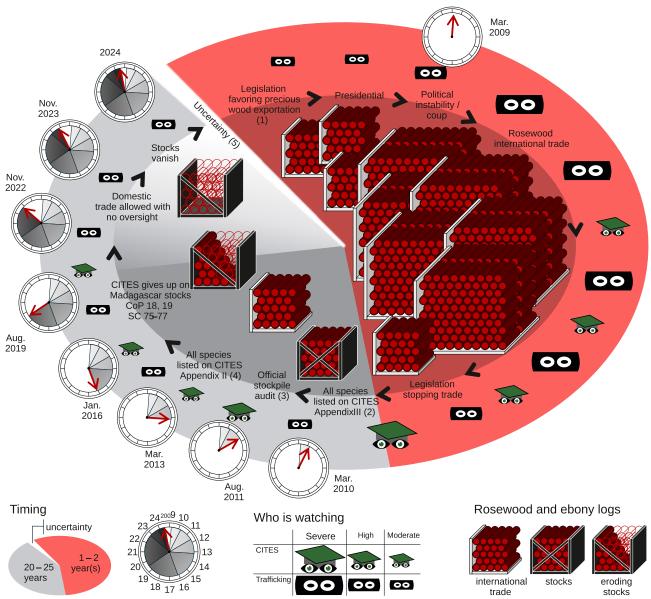


Figure 1. The rosewood trafficking cycle with different time scales and speeds, alongside associated reactions from CITES—supported by research, activism, journalism, and other civil society organizations—and actors involved in precious wood trafficking. (1. Precious wood or rosewood relate to species in the rosewood (Dalbergia, Fabaceae) and ebony (Diospyros, Ebenaceae) genera; 2. All species of rosewood and ebony from Madagascar; 3. Stocks correspond to the logs seized after the prohibition of international trade and the ban on logging at the national level, whether these logs were seized in Madagascar or elsewhere in the world, including in Singapore, Taiwan, and Kenya; 4. All species of rosewood and ebony from the entire world; 5. Uncertainty and risks that may have started as early as when CITES began to give up on Madagascar rosewood—see August 2019)

approved species or those for which international trade is forbidden. Additionally, Madagascar lacks adequate forest governance and the means to secure and control the hundreds of thousands of rosewood and ebony logs in the "official," "undeclared," and "hidden" stockpiles currently scattered around the country (Wilmé et al. 2020).

As was demonstrated after the one-off sales of ivory that took place in 1999 and 2008, the legalization of trade in a highly sought-after rare or endangered species or its parts often leads to opportunists exploiting relaxed regulations to engage in illegal trade (Hsiang and Sekar 2019). The current conditions regarding Madagascar's rosewood and ebony are similar and therefore do not support making stockpiled logs available for expansion of domestic trade without simultaneously facilitating parallel illegal international trade or an expanded domestic trade.

RISK I: LAUNDERING. The approximately 30,000 rosewood logs in Madagascar's "official" stockpiles have not been secured under the auspices of an independent third party. This engenders a great risk of these stockpiles being used as laundering mechanisms for logs from the country's "undeclared" and "hidden" stockpiles as well as from freshly cut trees. Such laundering could easily be occurring now, while the CITES Secretariat takes its time to reconvene the Consultative Group.

Should Madagascar proceed with domestic commercialization of the "official" stockpiles, it could thus lead to a 'laundering mechanism' and renewed illegal international trafficking. Development and implementation of explicit CITES guidelines is imperative to prevent illegal trade. Madagascar's rosewood and ebony are 'political timber'—past elections have coincided with spikes in sourcing and trafficking from previous stockpiles (Randriamalala and Liu 2010, Waeber et al. 2018, 2019). It is very likely that the criminal syndicates concerned are closely connected to the current

government of Madagascar. It is therefore essential that if the logs are to be used for the proposed domestic trade, they be secured by an independent third party approved by the CITES Secretariat prior to the commencement of any commercial activity.

Despite Madagascar's commitment made during CoP 19 to "strengthening the management" of timber stockpiles, there has been minimal actual management of the stockpiles. "Official" stockpiles remain unsecured and no effort has been made to address the management of "undeclared" and "hidden" stockpiles of rosewood and ebony. Furthermore, there is a complete lack of robust traceability and control systems (Waeber et al. 2023). Indeed, historically Madagascar has failed to develop adequate systems for logs used in governmental projects and allocated to artisans. The failure to secure, audit, or even identify "undisclosed" and "hidden" stockpiles, combined with lax measures for managing the official stockpiles, create a potential avenue for laundering logs from these sources. This in turn enhances the risk of illegal international trade.

Domestic usage of timber from the "official" stockpiles was recently implemented by the Madagascar government without discussion at CITES. Logs from official stockpiles were used to repair the Queen's Palace (also known as Anatirova) more than 25 years after the fire that destroyed the original building in 1995. Investigations by the Environmental Investigation Agency (EIA) and Transparency International (TI) could not verify whether all the logs removed from the stockpiles were actually used for repairs to the Palace. This leaves open the possibility that more logs were removed from the stockpiles than needed for the repairs, and that the excess logs were illegally exported (Vyawahare 2022). EIA and TI reported multiple irregularities in the procedures used to approve the project and, in the authorizations, granted for its realization.

Due to a lack of expertise and resources, Madagascar faces disconcerting challenges to define and implement procedures and to guarantee the effective management of regulated trade in precious wooden handicrafts. Clear criteria are required to set withdrawal limits from stockpiles and to apply controls on exports to prevent further illegal international trade. There is currently no definition of what constitutes a 'handicraft' or regulations in place to ensure that entire logs released for the production of handicrafts are indeed transformed into such items. The potential for devious exploitation of handicrafts as sources of material for precious wood industries by operated international players and criminal syndicates reinforces the pressing need for comprehensive safeguards to be put in place.

Despite the bleak scenario outlined above, progress is being made in monitoring and tracking the trade of Madagascar's rose-wood and ebony. Species limits have been clarified and their threat status has been assessed (Tropicos 2024a,b). Identification tools have been developed for standing trees although they are not yet available for felled trees or cut wood. Currently, methods are being tested for selected species using wood anatomical features (Musinsky et al. 2018, Sandratriniaina et al. 2021) as well as NIRS and DART TOFMS spectral signatures, and DNA barcoding tools are also being piloted. These methods could be complemented by convolution neural networks and chemotyping (Espinoza et al. 2015, He et al. 2018, Rocha et al. 2021). Techniques for near real-time forest monitoring notably of illegal activities are also in development (Musinsky et al. 2018).

However, innovative techniques for monitoring and tracking are only useful if accompanied by effective enforcement. The

CITES Consultative Group must establish controls on Madagascar's domestic trade that effectively prevent the illegal export of these precious woods. Environmental crime will decrease only when the trinity of robust monitoring, enforcement, and prosecution are fully established and operational.

RISK II: POTENTIAL EXPLOITATION OF FRESHLY CUT TREES. Freshly cut rosewood and ebony are likely to be laundered through official stockpiles. Mixing illegally sourced items into legal channels, a form of greenwashing, is a significant problem in the trafficking of wildlife and forest-derived products (Keskin et al. 2023). Legalizing domestic use without first securing the stockpiles, preventing the addition of newly harvested logs, and preventing export to the international market could encourage more unsustainable exploitation of the remaining Malagasy rosewood and ebony trees. The value of freshly cut wood exceeds that of decade-old logs in the stockpiles. Felling live rosewood or ebony trees to meet increased demand would negatively impact the chances of survival of these species and adversely impact Madagascar's forests and biodiversity (Sawyer et al. 2017, Vasey et al. 2018)

RISK III: MISUSE OF LOGS IN DOMESTIC TRADE. Since the 1980s, Madagascar forestry sector has faced persistent challenges, including weak governance, insufficient law enforcement, poor practices, and unclear regulations, all exacerbated by rampant corruption (Duffy 2005, McConnell and Sweeney 2005, Raik 2009, Randriamalala and Liu 2010, Scales 2012). This situation has led to the ongoing depletion of Madagascar's endemic rosewoods and ebonies (along with other timber species). Mediocre governance and ambiguous regulations have created an environment conducive to timber trafficking, particularly during periods of political instability such as 1992, 2006, and 2009-2010 (Schuurman and Lowry 2009, Innes 2010, Randriamalala and Liu 2010, Roberts et al. 2022). Upsurges in rosewood exports are often facilitated by strategically timed government decrees issued before elections or amid political turmoil. These official acts, coupled with "exceptional" government orders, empower a select few influential operators to export significant quantities of wood with official approval, highlighting the systemic failures in Madagascar's forestry management (Randriamalala and Liu 2010, Wilmé et al. 2018).

No effort has been made by Madagascar to define the criteria and procedures to be used to decide which artisans will be permitted to participate in the expanded domestic trade. There is a considerable risk that members of criminal syndicates will attempt to register as handicraft makers, and procedures will therefore be needed to prevent this from happening (Wilmé et al. 2020). Additionally, the government currently lacks guidelines to determine what criteria will be used to determine projects qualify for the use of logs from the official stockpiles, how many logs will be required for a project, and what measures will be taken to track the logs released to be sure that they are actually used in the approved project and not diverted for illegal sale. Adequate governance must be established to ensure that logs removed from the stockpiles for governmental projects are used appropriately. Mitigating these issues will require identifying qualified artisans and appropriate governmental projects along with tracking logs to be sure that they are used as intended.

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RECOMMENDATIONS

In the current context of Madagascar, the risks associated with a domestic trade in rosewood and ebony are high and threaten to undermine efforts made by CITES to ensure that international trade, both legal and illegal, does not threaten the survival of native species. Given the high demand for Malagasy rosewood and ebony, which highly threatened (Tropicos 2024a,b), comprehensive solutions to mitigate the risks identified above must be implemented before the CITES Standing Committee can be sure that the proposed domestic trade will not undermine current efforts and the embargo that implemented by CITES. The Consultative Group must be reactivated and needs to move aggressively. A realistic solution would be to curtail both international and domestic trade of Malagasy *Dalbergia* spp. and *Diospyros* spp. until effective controls are fully implemented.

To ensure that Madagascar's proposed use of stockpiled rosewood and ebony logs does not undermine ongoing conservation efforts supported by CITES, the following steps must be taken. These measures are essential to safeguard the remaining populations of these species from the threats posed by both international and domestic trade:

- Operationalize the Consultative Group with a broad mandate and NGO representation to address the issues identified above.
- Create a documentation and marking system to validate the legal acquisition of logs for domestic construction and artisanal purposes, and establish clear criteria for qualifying projects, artisans, and handicraft items, along with mechanisms to guarantee full utilization of allocated logs and traceability of handicrafts to their origins. These measures are vital for ensuring the legality, transparency, and sustainability of trade.
- Establish an independent, third-party monitor to oversee all aspects of Madagascar's domestic trade in an effective and transparent manner.
- Secure the official stockpiles and implement a reliable inventory and marking system before any utilization or trade. Consolidate all logs into a single, secured location and develop a robust control and a tracking system for released logs.

CONCLUSION

An expansion of domestic trade in Madagascar's rosewood and ebony using stockpiled logs without stringent oversight and effective control and enforcement measures poses severe risks to global conservation efforts. The inability to identify species along the entire supply chain and to assess their populations, combined with inadequate traceability and governance, create a high potential for illegal activities such as laundering freshly cut logs through official stockpiles. The CITES Secretariat has yet to implement the Standing Committee decision to reactivate the Consultative Group, which is critical before Madagascar is allowed to utilize the 30,000 logs in the "official" stockpiles for domestic trade. Otherwise, the efforts of CITES to protect Madagascar's CITES Appendix II listed rosewood (*Dalbergia* spp., Fabaceae) and ebony (*Diospyros* spp., Ebenaceae) species are likely to be profoundly compromised.

Madagascar's proposed expansion of its domestic trade in species of highly prized rosewood and ebony listed on Appendix II, if implemented, will function as a test case for other countries that are considering similar moves involving valuable rare and endangered species. CITES' actions in this matter will, for example, influence the policies of Southern African countries on ivory and rhino horn trades, and China's potential domestic trade in pango-

lins and tigers and their parts. The stakes are enormous; if countries can evade CITES controls by selling rare and endangered species domestically, the ability of CITES to protect these species from excessive international trade and potential extinction will be severely undermined.

It is imperative that all of Madagascar's stockpiles established during the recent period of civil unrest remain under strict CITES embargo, and that supervision, with comprehensive, effective enforcement mechanisms be implemented to prevent illegal international trade. Ensuring robust safeguards and stringent controls is essential to the success of CITES in protecting and averting the extinction of traded species globally. The consequences of inadequate regulation and enforcement could set a dangerous precedent for international wildlife conservation.

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