

ESSAY

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A history of conservation politics in Madagascar

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ABSTRACT

In this article, I argue that reconciling conservation and livelihoods in Madagascar requires an examination of the historical processes and political-economic systems through which the strong foreign influence on conservation has formed. I begin by documenting how a group of scientists and policy-makers came together in the 1970s and 1980s to mobilize global attention to the importance of protecting Madagascar's flora and fauna. I illustrate how their influence materialized not only through formal political negotiations and bureaucratic practice but also via informal collaborations across multiple geographic and institutional sites. Then, I examine how the critical historical conjuncture of the mid-1980s—with its emphasis on biodiversity, sustainable development and neoliberalism—prompted a reconfiguration in power relations among public, private, and nonprofit actors. This reconfiguration provided the political-economic context for the transformation of a scientific campaign into a well-funded foreign aid agenda, encompassed in the Madagascar National Environmental Action Plan. I illustrate how, although numerous actors advocated for integrated conservation and development approaches throughout Madagascar's environmental history, the political, scientific, and financial strength behind the international conservation lobby often overpowered the push for more comprehensive or integrated development approaches. Finally, I conclude by arguing that effective and equitable conservation in Madagascar will require transforming the power relations that have both created Madagascar's environmental crisis and efforts to redress it.

RÉSUMÉ

Dans cet article, j'avance que pour réconcilier la conservation de la nature et les moyens de subsistance des gens à Madagascar, il faut commencer par un examen critique des processus historiques et des systèmes économiques politiques qui ont eu une forte influence étrangère sur la conservation dans le pays. Je commence par documenter comment un groupe de scientifiques et de responsables politiques se sont réunis dans les années 1970 et 1980 pour mobiliser l'attention mondiale sur l'importance de protéger la flore et la faune de Madagascar. J'étudie comment leur influence s'est matérialisée non seulement par des négociations politiques officielles et des pratiques bureaucratiques, mais aussi par des collaborations informelles dans de nombreux endroits sur le terrain et dans les institutions. Ensuite, je montre comment la

conjuncture historique du milieu des années 1980 qui était caractérisée par un accent mis sur la biodiversité, le développement durable et le néolibéralisme, a permis de reconfigurer les relations de pouvoir entre les entités publiques, privées et les organisations à but non lucratif. Cette reconfiguration a forgé le contexte politico-économique dans lequel ces acteurs dévoués ont transformé une campagne scientifique en un programme d'aide étrangère bien financé et inclus dans le Plan National d'Action pour l'Environnement de Madagascar. Je montre comment, bien que de nombreux acteurs aient depuis longtemps défendu les approches intégrant conservation et développement pour protéger l'environnement de Madagascar, la force politique, scientifique et financière derrière le lobby de la conservation a souvent surpassé les efforts consentis pour des approches plus exhaustives et intégrées de développement. Enfin, je conclus en faisant valoir que pour réaliser la conservation efficace et équitable à Madagascar, il faudra transformer les relations de pouvoir qui ont à la fois créé la crise de l'environnement à Madagascar et les efforts destinés à la redresser.

SETTING THE STAGE FOR CONSERVATION POLITICS

For decades, scholars, policy-makers and practitioners have debated how to balance conservation and development in Madagascar, where the challenge is particularly acute because of the country's concurrent biological wealth and immense human poverty. Critics have called for radically new conservation approaches to make conservation more effective while also upholding the basic human rights of the Malagasy people. While Madagascar's charismatic fauna—particularly lemurs—have attracted invaluable international attention and funding, the costs and benefits of conservation have been unequally distributed (Ferraro 2002, Desbureaux and Brimont 2015), and, many have argued that the lives of lemurs are often prioritized over the lives of the Malagasy people (Peters 1998, 1999, Harper 2002, Reibelt and Nowack 2015). Scholars have proposed a range of ways to redress this inequity via sustainable revenue generation from local resource use (Erdmann 2010, Bertrand et al. 2014), greater institutional support and incentives for integrated conservation and development (Gezon 1997, Pollini 2011), and the greater empowerment of local communities (Ferguson and Gardner 2010, Mercier and Merali 2015). However, underpinning the struggle over conservation and human rights in Madagascar remain con-

trusting ontologies and values (Keller 2009, Kaufmann 2014), historically-grounded allegiances to misguided narratives and simplistic approaches to complex human-environment interactions (Scales 2011, McConnell and Kull 2014, Scales 2014), and the disproportionate influence of foreign scientific institutions and conservation organizations on the environmental agenda (Duffy 2006, Sarrasin 2007, Horning 2008, Kull 2014, Waeber et al. 2016).

In this revised chapter from *Corridors of Power* (Corson 2016), I trace the rise of this influence. The foundations for contemporary environmental conflicts and international interest in Madagascar's flora and fauna date to pre-colonial times, but, in this article, I focus on a relatively short period of time: the 1960s to the 1990s. I trace how a group of scientists and policy-makers came together to mobilize global attention to the importance of protecting the country's flora and fauna. I argue that their influence materialized not only through formal political negotiations and bureaucratic practice but also via informal collaborations across multiple sites. Certain scientific meetings, trips and political conferences provided opportunities to craft conservation priorities, to draft institutional protocols, and to develop relationships that continue to influence Madagascar conservation politics today. The critical historical conjuncture of the mid-1980s—in which agendas around biodiversity conservation and sustainable development emerged in the context of rising neoliberal policies—then prompted a reconfiguration in power relations among public, private, and nonprofit actors. This reconfiguration provided the political-economic conditions for these dedicated actors to transform a scientific campaign into a well-funded foreign aid agenda, encompassed in the Madagascar National Environmental Action Plan (NEAP). In the context of the Madagascar government's embrace of structural adjustment reforms, the environmental agenda offered an avenue to attract much-needed foreign exchange in the context of restructuring (Sarrasin 2005, Horning 2008).

The conceptualization of NEAP at this historical moment shaped the realm of possibilities for its subsequent agenda. The neoliberal reduction of the state and concurrent embrace of private and nonprofit participation in formerly state policy-making processes converged with an expanding environmental movement, which catalyzed the World Bank's development of environmental policy, and rising global attention to biodiversity. These processes shaped the politically viable narratives used to frame Madagascar environmental challenges, the strategies that could be invoked to redress them, and the actors granted the authority to manage its resources. Although numerous actors advocated for more decentralized and integrated conservation and development approaches throughout Madagascar's environmental history, the political, scientific, and financial strength behind the international conservation lobby often overpowered the push for more comprehensive or integrated development approaches.

By weaving material from personal and national archives with that from key informant interviews and historical policy documents from donors, non-governmental organizations (NGO) and government agencies, I add ethnographic insights to the well-documented history of conservation politics in Madagascar (e.g., Kull 1996, Andriamahefazafy and Méral 2004, Mercier 2006, Sarrasin 2007, Rakoto Ramiarantsoa et al. 2012, Kull 2014). In doing so, I hope to illustrate the importance of focusing not just on official events, institutions and policies, but also on the ways in which political economic context has shaped individual agency and interactions and the value of attending to the informal spaces that

influence policy (see also Corson et al. 2014). Ultimately, I assert that we must move our critiques beyond a focus on specific conservation projects and programs to the historically grounded, transnational and political-economic systems that sustain them in order to reconcile conservation and livelihoods in Madagascar. As we unravel sedimented historical layers, we begin to see how these systems have shaped both our contemporary understanding of Madagascar's environmental crisis and the resources invested to redress it. With its American-centric perspective, this article does not offer a complete account of the history of Madagascar's environmental program; rather it provides a window into some of the historically grounded relationships that created it. Likewise, because I agreed to protect individual confidentiality except in selected cases, I provide only general organizational associations for interviewees and have downplayed the role of a number of individuals, many of whom continue to influence Madagascar conservation politics.

THE SEEDS OF FOREIGN-FUNDED CONSERVATION. The origins of contemporary international scientific interest in Madagascar's biodiversity can be traced to early scientific expeditions from Europe, efforts to classify Madagascar's species, and resulting international scientific debates, which were recorded as far back as the mid-seventeenth century and extended into the French colonial era (Feeley-Harnik 2001, Andriamialisoa and Langrand 2003, Anderson 2013). This early scientific interest in Madagascar's species informed research and conservation in the French colonial era. The colonial government also brought tenets of scientific forestry and rational economic exploitation, which promoted utilitarian ideas of forest management for the greater good and the separation of areas for wood production and soil protection (Bertrand et al. 2004, Kull 2004). However, the state lacked the human and financial resources to contain significant deforestation by commercial exploiters. Eventually, concerns about forest loss prompted the creation of "nature reserves" and later "special reserves" and "national parks", which formed the backbone of the protected area system for decades (République Française 1928, Saboureau 1958, Andriamampianina 1987, Randrianandianina et al. 2003).

From the end of World War I to the late 1960s, the Académie Malgache and the Institut de Recherche Scientifique de Madagascar (IRSM) facilitated numerous zoological expeditions, and foreign scientific interest in Madagascar's lemurs intensified in the mid-twentieth century. Supported by IRSM, the French primatologists Jean-Jacques Petter and Arlette Petter-Rousseaux began studying lemurs in the 1950s. In 1960, the year of independence, David Attenborough, aided by the ornithologist Georges Randrianasolo of IRSM, made the first commercial film about wild lemurs for a Western audience. Collaboration among Malagasy and foreign researchers also led to various scientific research projects under the Centre National de la Recherche Scientifique. The American anthropologist John Buettner-Janusch brought lemurs back to Yale University to study in the 1960s and later founded the Duke Primate Center (now called the Duke Lemur Center) (Jolly 2015). Encouraged by Buettner-Janusch, the primatologist Alison Jolly began studying ring-tailed lemurs in 1962, followed by Robert Martin, Alison Richard, and Bob Sussman, who began their research in the 1970s. These researchers, among others, became key advocates for conservation in Madagascar, and they attended the *Conférence Internationale sur la Conservation de la Nature et*

de ses Ressources à Madagascar in 1970 (Andriamialisoa and Langrand 2003, Jolly and Sussman 2007).

The 1970 conference laid the foundation for subsequent foreign engagement in the conservation of Madagascar's flora and fauna. Sponsored by a number of international research and conservation organizations, it was organized by Petter, with the French Musée national d'Histoire naturelle and Monique Ramanantsoa Pariente, the daughter of General Ramanantsoa, who became Madagascar's interim president in 1972. "The idea of organizing a conference," a former Malagasy official recalled, "came from a few foreign scientists, and some Malagasy, who were worried about the growing degradation of forests" (Interview, 10 October 2005). It focused primarily on nature conservation: the slogan "Malagasy Nature, World Heritage" was visible everywhere (Jolly and Sussman 2007: 28). The attendees—primarily foreign and Malagasy researchers and conservation NGO representatives—produced a variety of recommendations and resolutions on the international scientific importance of Madagascar's environment, including one to create a World Wide Fund for Nature (WWF) office in Madagascar (IUCN 1972).

This key moment brought together scientists and policy-makers to focus on the importance of Madagascar's species. However, the ambition to expand this awareness was accompanied by concerns about foreign influence and attempts to downplay the social impacts of conservation—both tensions that continued to limit the effectiveness of the subsequent environmental agenda for ensuing decades. Kull (1996) cites an intervention by Etienne Rakotomaria, the director of scientific research, critiquing foreign organizations and scientists for dominating the discussions. Likewise, Jolly recalls being escorted out of the conference by Charles Lindbergh and Sir Peter Scott, the founder of WWF-International, after presenting a paper that she and her husband, the well-known economist Richard Jolly, had written entitled "Conservation: Who Benefits and Who Pays?" Lindbergh and Scott "instructed her that although it was obvious that poor people who lose their land pay most of the price of reserves, she should not say so. It would set back the cause of conservation to raise such issues" (Jolly and Sussman 2007: 28). As she recollects further, "That paper did not appear in the published proceedings. I did a very brief paper that I scribbled at the time because someone said 'do tell us about lemurs.' That made it into the proceedings. But Who Benefits and Who Pays? did not." She went on to explain the reasons behind this effort to silence her: "The conservationists had been fighting a battle to get heard, particularly in Africa. So the last thing they wanted was something that raised a question that was threatening" (Alison Jolly, pers. comm. 19 July 2010).

Concerns expressed at the conference about foreign interests driving conservation reflected a spreading dissatisfaction with the degree to which the French continued to influence political and economic affairs in Madagascar. The momentum that it inspired stalled in the wake of the 1972 revolution against economic conditions and French domination of the university, schools, and government, which eventually led to Lt. Comm. Didier Ratsiraka's Second Republic, with its Leninist scientific socialism agenda and an emphasis on poverty reduction. The government turned away from France and other Western countries and toward Russia, North Korea, and China. It nationalized key sectors of the economy, such as agriculture, and borrowed heavily from external sources to finance a national investment plan (Marcus 2004, Sarrasin 2005, Sodikoff 2007). From 1972 until the mid-

1980s, when the government turned back to the West for foreign aid, many foreigners found it difficult to visit the island. Western governments and NGOs alike were reluctant to pledge significant funds to conservation there, and the Ratsiraka government gave research permits to only a handful of biologists during this time. Foreign scientists who did enter often came through higher education system partnerships (Andriamialisoa and Langrand 2003, Fenn 2003, Jolly and Sussman 2007).

In the late 1970s and 1980s, scientists and conservationists concerned that Madagascar's environment was in grave danger began working with key Malagasy policy makers to build the political infrastructure for the subsequent conservation agenda. The WWF-International office, called for in the 1970 conference resolutions, was established by presidential decree in 1979 (Repoblikan'i Madagasikara 1979). Following the resolution's mandate that the director is Malagasy, and at the behest of Petter, Barthélémi Vaohita was appointed the WWF-International representative. An accord between WWF and the Madagascar Ministère de l'Enseignement Supérieur et de la Recherche Scientifique (MESupReS) then established the WWF program of action in Madagascar. Among other things, the accord acknowledged the need for information about park management and ecosystem dynamics; recommended preparation of an inventory of fauna and flora; and committed WWF to mobilizing foreign aid for conservation (MESupReS and WWF-International 1983). In turn WWF-U.S. gave \$US120,500 for seven years to the Bezà Mahafaly reserve, which Guy Ramanantsoa of the University of Madagascar, Alison Richard, and Robert Sussman had created in 1975 as a training ground for students at the University of Madagascar's School of Agronomy (Richard and Ratsirason 2013). Further, in an effort to raise public awareness about Madagascar's flora and fauna in the United States, Thomas Lovejoy of WWF-U.S. commissioned Jolly to write *A World Like Our Own*, which was published in 1980 (Jolly and Sussman 2007).

A series of meetings, trips, and conferences, some of which took place outside of Madagascar, then cemented critical relationships among Malagasy government officials and scientists. In 1979 Césaire Rabenoro, the president of the Académie Malgache, hosted an international meeting on lemur biology. Gerald and Lee Durrell of Jersey Wildlife Preservation Trust (JWPT) (now the Durrell Wildlife Conservation Trust), among others, attended this meeting (Jolly and Sussman 2007). In November 1981, following a visit by Barthélémi Vaohita to the United Kingdom, a group of foreign scientists working in Madagascar held an informal gathering in Cambridge, England, to discuss how to promote nature conservation in Madagascar. In February 1983 the JWPT invited relevant Malagasy authorities to a follow-up meeting on the island of Jersey in the Channel Islands (Durrell 1983), where Gerald Durrell had founded the Jersey Zoological Park in 1959 as a breeding center for endangered species. Participants from the Cambridge meeting, Malagasy authorities from relevant ministries and technical organizations, and additional representatives of various universities, museums, and wildlife organizations from the United States and Europe attended the Jersey meeting. The goal was to highlight foreign interest in Madagascar's flora and fauna for the Malagasy authorities and to address the problematic process for obtaining research permits. It was at this meeting that Petter also raised the idea of holding a follow-up conference to the 1970 conference (Durrell 1983).

While foreign scientists were concerned about the challenges of obtaining research permits, the Madagascar government was overwhelmed by the number of uncoordinated proposals from foreigners wanting to conduct scientific research in the country. In Jersey, Madame Berthe Rakotosamimanana, then Director of Scientific Research with MESupReS, laid out a plan to facilitate the process for foreign scientists. Although some research institutions, such as Strasbourg and Duke universities, had formal agreements with MESupReS, individual researchers often approached the Madagascar government separately. In an attempt to redress the issue, WWF-International and the ministry signed an annex to their existing accord that established an International Advisory Group of Scientists (IAGS) to coordinate biological research conducted by foreigners (MESupReS and WWF-International 1983). Composed of Roland Albignac, Lee Durrell, Alison Jolly, Bernd-Ulrich Meyburg, Jean-Jacques Petter, Peter Raven, and Alison Richard; this group screened biological research proposals, which they then forwarded to WWF and the appropriate ministries in Madagascar, with the goal of expediting permission to conduct research. Reflecting the priorities of the WWF-International program and the interests of the group, the IAGS emphasized the need for biological surveys: "For conservation purposes, the research most urgently needed by Madagascar concerns up-to-date biotic inventories of her last remaining natural habitats" (Durrell 1984). Sheila O'Connor began conducting research in the early 1980s, and in 1986 WWF-International hired Martin Nicoll and Olivier Langrand to conduct a review of existing protected areas and to propose new priority areas to protect these habitats.

These meetings cemented critical personal relationships, introduced protocols, identified programmatic priorities, and institutionalized the place of the foreign, Anglophone, scientific community in Madagascar environmental politics. In particular, the emphasis on biological surveys continued as the environmental program expanded. As the group channeled funds and permits toward specific research priorities these early assessments created the scientific basis for the biodiversity portion of the NEAP and the foundation for the eventual expansion of Madagascar's protected areas. When the country reopened to the West after the decline of the socialist regime in the 1980s, these advocates found themselves at the center of an emerging global political transformation.

THE INTERNATIONAL DISCOVERY OF MADAGASCAR. The 1980s marked an important turning point in Madagascar's environmental history. As a result of extensive borrowing and capital flight, the country's foreign debt was over \$US1 billion, and the government signed its first International Monetary Fund (IMF) agreement in 1980, under which donors agreed to reschedule or refinance Madagascar's debt in exchange for the acceptance of an IMF stabilization program (Brown 2000, Marcus 2004). In reaction, donor assistance rose rapidly—from \$US36.3 million in 1976 to US\$217.6 million in 1988 and to US\$365.5 million in 1991 (Horning 2008).

At this critical historical juncture Madagascar burst into the international limelight. Key events underpinned its emerging international fame. These included the discovery in 1986 of the golden bamboo lemur, the growing awareness of the rosy periwinkle's use as a treatment for childhood leukemia, and a widely publicized satellite image of Madagascar in 1984 from the American

space shuttle Discovery, which showed "Madagascar bleeding to death" as reddish-brown water from eroded soils poured into the Betsiboka River estuary off the northwest coast (Gezon 2000, Simsik 2002). "Madagascar returned to the world map after a decade of isolation largely through the lens of conservation—perhaps literally through the camera lens, as images and stories of lemurs, chameleons, orchids, erosion, and deforestation made it to television documentaries and popular publications" (Kull 1996: 67). A senior international conservation NGO representative who had been working in Madagascar at the time said, "What really happened is that all of a sudden at the national level, at an international level, beyond the circle of scientists, there was a discovery of the importance of biodiversity in Madagascar" (Interview, 29 September 2006).

Madagascar's emergent fame was fueled by rising global interest in biodiversity and sustainable development. Sponsored by the Smithsonian Institution and the National Academy of Sciences, the 1986 National Forum on BioDiversity was convened in Washington, D.C., with the explicit intention of raising congressional awareness about global species loss (Takacs 1996). At this forum, Russell Mittermeier identified Madagascar as one of the top six mega-diverse countries (Mittermeier 1988; see also Mittermeier et al. 1998). Then, in 1988, the ecologist Norman Myers introduced the idea of protecting critical regions with high concentrations of endemic species that faced habitat loss and proclaimed Madagascar one of the world's top ten biodiversity hotspots (Myers 1988, 1990, Myers et al. 2000). Much of the emerging interest in biodiversity focused on Madagascar as a high-priority country. At the same time, environmentalists were pushing development donors to fund environmental programs under the auspices of sustainable development. First articulated in 1980 in the World Conservation Union (IUCN) World Conservation Strategy, the concept of sustainable development offered a way for aid donors to endorse environmental issues without opposing their overarching mandate to promote economic growth, and it gained global prominence quickly as a result (Redclift 1992). The IUCN strategy also recommended that countries prepare national conservation strategies (IUCN 1980), and in 1984 Madagascar became the first country in the Afro-tropics to follow the IUCN recommendation (Repoblika Demokratika Malagasy 1984).

The 1984 strategy reflected the IUCN framing of conservation as a means of advancing rather than impeding sustainable development. It also linked natural resource management to food security: "It appears more and more obvious that the management of natural resources for sustainable development is an urgent necessity and should constitute the pivot around which government policy secures food self-sufficiency will hinge in the future" (Repoblika Demokratika Malagasy 1984, summary, author's translation). In doing so, it marked a transition in emphasis in Madagascar environmental politics from nature conservation, which had been the focus of the 1970 conference, to "the environment", and it established the groundwork for a comprehensive national environmental agenda. In 1984 Barthélemy Vaohita convinced every Malagasy minister to sign Madagascar's national conservation strategy, a bureaucratic endeavor that constituted a meaningful step toward building environmental awareness across the government (Jolly and Sussman 2007). The decree that adopted into legislation the strategy also established the *Commission Nationale de Conservation pour le Développement* (CNCD), assisted by a *Comité Technique Permanent* (CTP) that reported to

the director general of planning (Repoblikan'i Madagasikara 1984). Finally, the strategy formed the basis for a 1985 WWF-International and IUCN-sponsored conference, the idea for which Jean-Jacques Pettey had first raised in Jersey two years before.

With the involvement of policy makers and politicians from Madagascar and overseas, the *Conférence de Madagascar sur la Conservation des Ressources Naturelles au Service du Développement* (referred to in English as the Second International Conference on Conservation and Development in Madagascar), moved the challenge of addressing Madagascar's environmental degradation from the scientific into the political realm. In contrast to the conference in 1970, the one in 1985 was perfectly timed to meet rising donor interest in Madagascar. Funds did materialize to implement its recommendations, and its recommendations shaped the development of the subsequent World Bank-led Madagascar NEAP. As a senior international conservation NGO representative recalled, "That was the defining moment, at the 1985 meeting. From there, the World Bank took over and started to think about putting together these national environmental action plans" (Interview, 29 September 2006). As shown below, the Madagascar NEAP ultimately became a model for other countries preparing the plans.

Importantly, even as the conference brought the issue of Madagascar's environment into the political realm and linked conservation and development, scientists continued to influence conservation policy. In the three years between the conference and the issuance of the NEAP, a number of critical events occurred. Two pre-conferences, both held in the Solimotel in Antananarivo, concentrated on scientific research. The first, sponsored by the Ministère de la Recherche Scientifique et de la Technologie pour le Développement and organized by Lala Rakotovo, the director for environmental sciences research, concentrated on the state of research on forest ecosystems in Madagascar (Rakotovo et al. 1988). The second, organized by Russell Mittermeier and Alison Richard and sponsored by the IUCN Species Survival Commission (SSC), aimed to develop a list of Species Conservation Priorities in Madagascar. In a memo to potential participants the organizers wrote, "Special emphasis should be placed on identifying the highest priority species that are in the greatest danger of extinction, and also the most important parks and reserves. This information will be incorporated into a list of recommendations to be presented at the National Conservation Strategy Conference the following week, and will also serve as the basis for an IUCN/SSC Action Plan on Species Conservation Priorities in Madagascar" (Mittermeier and Richard 1985). These scientific assessments informed a subsequent conservation action plan, and the 1985 conference and associated side meetings furthered informal collaboration among scientists, donors, and Malagasy policy makers. In a 1985 memo to researchers wanting to work through the IAGS, Chairwoman Lee Durrell wrote, "I urge each of you who cannot attend the meetings to provide me with something I can present, so that, as foreigners, we can show that we are united in our aim to study, get results and therefore help sustain Madagascar's unique natural resources" (Durrell 1985). The IUCN Primate Specialist Group of the SSC was instrumental in pushing for funding for primate conservation in Madagascar, and after this conference WWF-U.S. began fundraising.

BUILDING TRANSNATIONAL RELATIONSHIPS. In October 1986 WWF officials organized a trip to Madagascar for family and

staff members of the W. Alton Jones Foundation, the foundation started in 1944 by W. Alton "Pete" Jones, an oil executive with the Cities Service Company. In addition to the foundation head, Patricia Jones Edgerton, the visitors included the executive director of the Geraldine Dodge Foundation, Scott McVay, and his wife, as well as Olga Hirshhorn, the art patron and wife of the founder of the Hirshhorn Museum and Sculpture Garden, Secretary S. Dillon Ripley of the Smithsonian and his wife, Mary, and the Washington Post reporter Henry Mitchell, who went on to write articles about the importance of Madagascar that helped to activate USAID funding for the country's environmental issues (Mitchell 1987). Russell Mittermeier, Thomas Lovejoy and Alison Jolly accompanied the group. The W. Alton Jones Foundation subsequently gave \$US500,000 to WWF to get the conservation program in Madagascar going in 1986–87 in order to promote the development of a national conservation policy. This trip helped to forge additional personal relationships that later advanced the conservation agenda.

A subsequent series of related events focused on lemur conservation then consolidated the advocacy efforts of scientists and conservation NGOs. In April 1986 the New York Zoological Society (NYZS) (now known as the Wildlife Conservation Society) hosted a meeting on St. Catherine's Island in Georgia that brought together representatives of various American and European conservation organizations to discuss the status of lemurs both in captivity and in the wild. As in Jersey, the participants proposed a second meeting on "The Promotion of Ecology, Conservation and Development in Madagascar" that took place on St. Catherine's in May 1987 and concentrated on protected areas, captive breeding, research priorities, and training Malagasy researchers (Anonymous 1987, Mittermeier 1987). Mittermeier, as the chairman of the IUCN/SSC Primate Specialist Group and director of the WWF-U.S. Primate Program, invited several Malagasy dignitaries to attend. A number of zoos wanted lemurs for captive breeding, and the meeting's sponsors included WWF-U.S., the NYZS, JWPT, the San Diego Zoological Society, the Los Angeles Zoo and the Greater Los Angeles Zoo Association, the Missouri Botanical Garden, the Saint Louis Zoo, and the Duke Primate Center (Mittermeier 1987). An attendee at the meeting recalled, "[The meeting] was ostensibly about animals for zoos, but really it was about the U.S. expression of concern and the Malagasy opportunity to see the U.S. interest in zoos and animals" (Interview, 24 September 2006). The meeting ended with the signing of the 'Convention on Collaboration with Respect to Endangered Malagasy Fauna' between the Malagasy government and various zoos, which stated that lemurs could be exported only within the context of skilled captive breeding programs and commitment to current capacity building in Madagascar (Convention for Collaboration 1987).

Tensions between conservation and development goals resurfaced in these discussions as well, foreshadowing the future struggle in the NEAP between foreign conservation interests and Malagasy policy-makers' emphasis on economic development. Minister Joseph Randrianasolo, Minister of Livestock Production, Fisheries, Water and Forests, closed the St. Catherine's meeting by underscoring the importance of integrating nature conservation and sustainable use: "Our national conservation strategy is categorical on this theme," he said. "This document expounds, in straightforward terms, that the need for sustainable development is integral to the concept of conservation" (Randrianasolo 1987).

After the formal meeting, a group comprised of the Malagasy

officials, Alison Jolly, Russell Mittermeier, and others toured zoos in the United States, including the Duke Primate Center, the Washington National Zoo, the San Diego Zoo, the San Diego Wild Animal Park, the Los Angeles Zoo, the Huntington Botanical Gardens, the Saint Louis Zoo, and the Missouri Botanical Garden. This trip fostered collaboration among various Malagasy ministries as well as between these ministries and scientists. Above all, it afforded the advocates needed access to Minister Randrianasolo. The final day of the trip brought a pivotal moment: while driving around in Los Angeles, Mittermeier handed the Minister a document entitled 'A Draft Action Plan for Conservation in Madagascar', which proclaimed "Madagascar the single highest major conservation priority in the world," included a set of recommendations for the country's highest conservation priority areas, and gave five-year budget estimates for each proposed project (Mittermeier 1986; Russel Mittermeier, pers. comm. 29 December 2014). On the final day of the trip, the Minister proposed to adopt the action plan, "as a work of collaboration between Malagasy and *vazaha* [foreigners] to all the others concerned" (Jolly 2015: 94–95; see also Jolly and Sussman 2007). In this moment the previous ten years of conferences, meetings, and research agreements coalesced into a Madagascar government agenda, and the action plan subsequently informed the biodiversity portion of the Madagascar NEAP.

After a visit to Paris to meet Jean-Jacques Petter as well as IUCN and WWF-International officials, the Malagasy policy makers made a final trip to JWPT (Mittermeier 1987). Then, in 1988, the Madagascar Fauna Group formed as an international consortium of twenty-one zoos and research institutes in the United States, Europe, and Great Britain that aimed to conserve Madagascar's endangered species in line with the St. Catherine's agreement. It managed the Ivoloina Zoological Park near Toamasina and the Betampona Reserve, where captive lemurs were released, and it aided the Tsimbazaza Botanical Gardens and Zoo in Antananarivo (MFG 1994, Sargent and Anderson 2003, Jolly and Sussman 2007).

As these meetings were taking place, advocates in Washington, D.C., including from WWF-U.S., were mobilizing U.S. political interest both in biodiversity and in Madagascar. In 1988 Mittermeier chaired a World Bank Task Force on Biodiversity that raised awareness of the issue within the World Bank. That same year the Smithsonian Institution signed a Memorandum of Understanding with the Madagascar scientific research ministry, with the goals of promoting bilateral cooperation, facilitating research permits, and promoting research exchanges in various scientific fields (MRSTD and Smithsonian Institution 1988). Beginning in April 1989 the Smithsonian assembled a group of American scientists as well as policy makers from the Smithsonian, the World Bank, and USAID to discuss strategies for protecting Madagascar's biodiversity and for moving forward the NEAP (Smithsonian Institution 1990). One of the scientists recalled, "We—the research professors, the policy makers, decision makers and the finance people—had meetings called together by the Smithsonian Institution. We all contributed to a certain extent to [the Madagascar] environmental action plan by going to these meetings, by discussing these things, and sometimes writing too" (Interview, 26 May 2006). Like the trips and events discussed above, these meetings solidified informal relationships and institutionalized initial policies in Washington D.C., not just laying the foundation for the conduct of scientific research in Madagascar but also cementing the influence of U.S.-based scientists and conservation NGOs in Madagascar environmental politics.

MADAGASCAR AS THE PERFECT MODEL

Multilateral and bilateral donors then provided the finances to transform this growing scientific movement into a political reality. In 1987 the World Bank president Barber Conable announced in an address to the World Resources Institute that the Bank would create an environment department, undertake countrywide national environmental assessments, and fund environmental programs (Conable 1987). Léon Rajaobelina, then Malagasy Ambassador to the United States, offered Madagascar as a pilot country (Falloux and Talbot 1993).

The Bank began by producing internal Environmental Issues Briefs and Country Environmental Strategy Papers (Falloux and Talbot 1993, Wade 1997). In 1992 it started requiring all borrowing countries to produce NEAPs in order to qualify for structural adjustment lending (Marcussen 2003, Goldman 2005). By 1996 more than ninety countries had started a NEAP process, and seventy-four plans had been completed (World Bank 1996). Like the earlier environmental assessments, NEAPs were supposed to identify environmental problems, analyze their underlying causes, and recommend actions to address them, the goal being to mainstream the environment into the overall development planning process of a country (Greve et al. 1995). They were also intended to provide mechanisms with which to coordinate donors as well as scientific organizations, NGOs, and other institutions around complementary and integrated actions.

Reflecting the emphasis on involving civil society in policy processes that characterized the modified neoliberalism of the late 1980s (Mohan and Stokke 2000, Hart 2001), the Bank pushed the Malagasy government to involve private and nonprofit organizations in the development and implementation of its NEAP (Froger and Andriamahefazafy 2003, Sarrasin 2007). It emphasized decentralized awareness building among both populations and government authorities in order to reinforce "country ownership" and to involve "the population" (Falloux and Talbot 1993, Froger and Andriamahefazafy 2003, Andriamahefazafy and Méral 2004). To this end the plans were to be 'holistic', 'process-oriented', 'country owned and driven' (instead of donor-driven), and 'participatory': "A 'process' more than a 'product,' a NEAP seeks to provide a framework for integrating environmental considerations within the overall economic and social development of a country. As a truly national enterprise this process should be taken over and orchestrated by each interested country; it is not done for the country by a donor. The government and the civil society are partners and wide public participation is essential" (Falloux and Talbot 1993: 1).

Because Madagascar already had the National Conservation Strategy of 1984 and governmental mechanisms to coordinate its implementation in addition to well-established relationships between scientists and policy makers, the country was an ideal place to showcase the World Bank's new environmental agenda. Madagascar afforded the Bank an opportunity to appease the influential U.S.-based environmental groups who were concerned with biodiversity loss and deforestation. At the same time, the environmental agenda offered the Madagascar government an avenue to attract much-needed foreign exchange in the context of IMF restructuring (Sarrasin 2005, Horning 2008). The Madagascar NEAP became the nexus for the negotiation of diverse agendas, stemming from the World Bank, USAID, international conservation NGOs, scientists, various Madagascar government agencies, and others.

Other countries began using the Madagascar program as a model for coordinating donors and government around a unified environmental agenda and as a test for the international donor community's capacity to protect the global commons. Much of the overarching NEAP design was developed on the basis of the Madagascar plan (Mercier 2006). A former senior Malagasy official recalled that as a fifteen-year, donor-government coordinated plan it represented an entirely new way of providing foreign aid, and as a result, "a lot of countries and international organizations were interested in the [Madagascar] Environmental Action Plan" (Interview, 10 October 2005). Its designers saw an opportunity to shape not just Madagascar's future but also that of the world: the foreword to the 1988 draft NEAP states "The case of Madagascar presents the international community an opportunity to create and implement an original solution for development assistance that will preserve this biological diversity—a diversity which is part of the common heritage of all humanity. If successful, such a solution will serve as a future model for other countries" (World Bank et al. 1988: 2).

Following the 1985 conference and drawing on the 1984 strategy, the Madagascar government created an interministerial committee and a small planning unit to implement the strategy. The temporary *Cellule d'Appui au Plan d'Action Environnementale* (CAPAE), staffed primarily by private consultants, coordinated its preparation. Roughly 150 Madagascar government analysts, academics, and consultants and some 40 international environmental experts were involved in its development (Brinkerhoff and Yeager 1993, Sarrasin 2006).

World Bank missions in 1987 and 1988 under the guidance of François Falloux then pushed the NEAP forward (Brinkerhoff and Yeager 1993). The first World Bank NEAP planning mission was in October 1987; topical working groups started in late 1987 to map out priorities; and a final mission in March 1988 brought together representatives of USAID, WWF-International, the World Bank, and United Nations Educational, Scientific, and Cultural Organization (UNESCO), as well as French and Swiss consultants (World Bank et al. 1988, Sarrasin 2007). The working groups presented final recommendations at a conference in Paris in May 1988, and the draft NEAP was published in July 1988. Through these missions and working groups the World Bank enlisted bilateral donors, NGOs, scientists, and others in its vision for the NEAP; the NEAP became an "obligatory passage" for engaging in Madagascar environmental politics (Sarrasin 2007).

ENGAGING CIVIL SOCIETY AND AVOIDING THE STATE. Foreign interests heavily influenced the negotiations. The consultant Jean-Roger Mercier (2006) recounts efforts to ensure that foreigners did not dominate the process: "While the original team was essentially composed of international experts, we rapidly co-opted several Malagasy experts and anchored our contacts with the Malagasy Government, which was involved at the highest level, [with] the then Prime Minister Victor Ramahatra bringing an incredibly pertinent vision to this NEAP preparation. Cooperation with the international NGOs was a given, with WWF having a particularly strong and competent involvement from the onset" (Mercier 2006: 50). However, as Brinkerhoff and Yeager (1993) reflect: "In the early stages of the [Madagascar] environmental movement, it appeared that Malagasy government officials, scientists, and development agents would play a lead role in orchestrating the effort. Over the long run, however, the international conserva-

tion groups and donors became key players in promoting and encouraging continued action, working with a core group of Malagasy environmentalists" (Brinkerhoff and Yeager 1993: 7). Building on the strong networks and advocacy around biodiversity that had already been established, they were able to channel political and financial support to biodiversity. For example, because WWF had the background information, the World Bank asked its staff to write the biodiversity portion of the Environmental Action Plan. The resulting conservation agenda drew on the conservation strategy of 1984 (Repoblika Demokratika Malagasy 1984), Mittermeier's Conservation Action Plan (Mittermeier 1986), and the biological surveys conducted by WWF-International (Nicoll 1988).

The massive mobilization of nongovernmental personnel allowed the World Bank to tout the program as participatory (Bhatnagar and Williams 1992), even though the participants were primarily foreign- or Antananarivo-based. In their review of the process, Falloux and Talbot (1993) lament that few Malagasy NGOs were involved, the notable exception being the Federation of Malagasy Churches, which ultimately "played a key role in disseminating information and mobilizing support for the NEAP." They continue, "A major problem at the start was that the NEAP development was confined to the intellectual and technological circles in the capital, Antananarivo. To remedy this, albeit almost too late, a series of regional seminars were organized" (Falloux and Talbot 1993: 102–103). However, pressure to speed up the process hindered regional consultations: "In an effort to maintain the momentum of the analysis, input from politicians, government officials, and farmers outside of the capital was not solicited" (Brinkerhoff and Yeager 1993: 9).

Reflecting neoliberal ideology and concerns about corruption, donors sought to simultaneously avoid and engage the state. Although the CAPAE was sponsored by the Directorate of Planning and reported to the CTP (which worked under the authority of the CNCD), it was financially and administratively autonomous from the government (Falloux and Talbot 1993, Pollini 2011). Creating the CAPAE as a parastatal organization allowed the World Bank to pay higher salaries than the government, where structural adjustment was holding down civil service salaries (Jolly 2015) and "to maintain the balance of power in favor of [donor] 'experts' while facilitating incentives for the government and Malagasy public administration in the project" (Sarrasin 2007: 442, author's translation). The CAPAE depended on foreign donors, including the World Bank, USAID, the Swiss aid agency, United Nations Development Program (UNDP), UNESCO, and WWF-International, for all of its finances, including salaries (Sarrasin 2007, Pollini 2011).

The donors committed to locating a Multi-Donor Secretariat (MDS) to coordinate the eleven donor agencies that would finance the first phase of the Madagascar NEAP in Antananarivo (Coopération Suisse et al. 1989, World Bank 1989). However, in another failed effort to promote Malagasy control, in 1989 USAID agreed to finance an MDS at the World Bank in Washington. The justification for moving the MDS to Washington was to facilitate coordination with donor and NGO headquarters outside of Madagascar and to let the newly created *Office National pour l'Environnement* (ONE) coordinate those within Madagascar. In fact, the MDS eventually became a conduit of NEAP information and experience among countries around the globe, and it helped to coordinate NEAPs across a number of African countries. In the second phase of the NEAP, a donor-financed and Madagascar-

based *Secrétariat Multi-Bailleurs* replaced the MDS and served as an interface between donors and the Madagascar Government on environmental funding and priority setting (Brinkerhoff and Yeager 1993, Falloux and Talbot 1993, Greve et al. 1995, Brinkerhoff 1996, Lindemann 2004).

By creating new institutions outside of the government, the donors could control the priorities and pace of the program, but they also had to sell their agendas to key officials in the Madagascar Government. Even as Falloux and Talbot (1993) commend the “wisdom not to entrust the NEAP preparations directly to the existing governmental structure” (Falloux and Talbot 1993: 36), they admit that the lack of parliamentary involvement resulted in a slowdown of the NEAP’s formal acceptance. The CAPAE tackled the challenge of selling the NEAP to the government in part by using media consultants to educate the population about environmental issues and to build popular support for the NEAP, which in turn helped to enlist government officials (Falloux and Talbot 1993, Sarrasin 2007).

DEBATING THE BALANCE: LEMURS VERSUS PEOPLE. The

NEAP had the potential to set the stage for a broad environmental program for Madagascar, but the operationalization of the plan depended almost entirely on foreign aid donor funding and so it was shaped by donor priorities. Mercier (2006) recalls the early implementation process: “Our first order of business was to define the NEAP’s scope. We cast the net very widely and did not limit ourselves to conservation, though conservation was both the reason why Madagascar was so famous and courted internationally and the biggest motivation behind the preparation of the NEAP” (Mercier 2006: 50). While issues such as biodiversity conservation, urban environment and soil conservation remained core priorities in the final draft plan in 1988, other topics identified in early planning meetings such as human health, marine, and energy were marginalized in favor of education, research, monitoring, and tourism. Overshadowing the donors’ conflicts over these priorities was an ongoing clash between conservation and development goals: as a government official recounted, “We were concerned with development, but the donors were interested in conservation” (Interview, 14 October 2005). As the holders of the purse strings, the foreign aid donors quickly began reshaping the plan’s priorities and implementation infrastructure.

Once the NEAP was accepted in 1988, subsequent multilateral missions in 1989 negotiated its implementation. Again, foreign state and non-state actors dominated. The World Bank meeting in Madagascar in July 1989 was a pivotal moment, when Swiss, American, Norwegian, and German donors on the multilateral mission released a joint memo to the World Bank that critiqued the priorities for the first phase of the program laid out in the World Bank’s summary of the 1989 Donor Evaluation Mission (World Bank 1989). They confronted the World Bank representative at the end of the first week of the joint donor mission, after the participants at the mission had spent a weekend at the Périnet Reserve. Jolly (2015: 111) describes what happened: “The aid donors sat in a grim clump at the far end from François [Falloux]. When François called on Hans Hürni [with the Institute of Geography at Berne University], Hans just rose with a paper from the donors in his hand, walked silently the length of the table, put it down in front of François and walked silently back” (see also Jolly 2004: 115). Challenging the World Bank’s proposed plan of action, the memo argued that: “Due to insufficient institutional capacity

and technical experience, the MDG [multidonor group] suggests scaling down the soil conservation, remote sensing / cadastre and education components. In addition, the MDG strongly feels that inadequate training and institutional capacity is the single most significant constraint to improved environmental management in Madagascar, and needs to be addressed in a more coherent way within each project component.” It underscored that the biodiversity section “continues to be the most coherent component of the project, and should serve as a focal point for other project activities,” and it emphasized that the proposed MDS should be based not in Washington but in Madagascar (Coopération Suisse et al. 1989: 2-3).

Again, tensions between donor interests in conservation and Malagasy interests in development surfaced: “By the next day the Malagasy counter-attacked. Viviane Ralimanga (the head of the CAPAE) herself wrote an impassioned letter saying if we thought we could just emphasize fauna and flora, we were sadly misjudging the temper of the Malagasy, as well as their needs. Philippe Rajobelina, the Deputy Director General of Planning, wrote to say that even within the biodiversity sector it was unacceptable to have more money allotted to the reserves than to peripheral development: ‘There are more important primates in Madagascar than lemurs’” (Jolly 2015: 112-113, see also Jolly 2004: 215).

Again, however, money decided the conflict. By 1991 the programs proposed or in place for biodiversity totaled over \$US60 million, more than \$US50 million of which came from USAID, with UNDP, German, Norwegian, and proposed British aid making up the balance (Greve 1991), while Swiss aid concentrated on agriculture, sustainable forestry and rural development (Kull 2014). Nonetheless, programs like mapping, land tenure, research, and information were often oriented toward biodiversity and forests programs (Hufty and Muttentzer 2002). Even within the biodiversity program there remained tension between how much to focus on conservation and how much to integrate development, and while Integrated Conservation and Development Projects offered a balance, by the second and third phases of the NEAP they had given way to large-scale biodiversity prioritization and landscape planning. The first MDS newsletter states, “One of the major issues facing EP1 [Environment Program 1] as it approaches implementation is how to achieve the correct balance between biodiversity and natural resource conservation, scientific research and development activities for the buffer zone populations” (Greve 1990, n.p.). Yet even as donors agreed that it was important to integrate development with conservation, a long-standing emphasis within the biodiversity program on biological inventories, identification of conservation priorities, and the expansion of protected areas remained, as did the tension between conservation and development interests and the influence of foreign and Antananarivo-based organizations.

SCIENCE, POWER, AND GOVERNANCE

The historical analysis of the rise of Madagascar’s foreign funded conservation agenda highlights the value of attending not just to official policy and institutions, but also to the power relations and informal interactions among the individuals engaged in them. From the mid-1970s through the launch of the NEAP in the late 1980s an assemblage of dedicated scientists, NGOs, donors, and bureaucrats worked together in both informal and formal ways to facilitate scientific research and promote conservation in Mada-

gas. Through meetings, conferences, trips, letters, agreements, and action plans, they circulated ideas, crafted narratives, cemented personal relationships, and developed policies that laid the foundation for Madagascar's subsequent environmental program. At particular moments—ranging from major conferences to trips to park lodges—they shifted the political playing field in critical ways. Their explanations for Madagascar's environmental crisis as well as for the priority solutions to it became institutionalized; not only via the official policies that the World Bank, the Madagascar government, foreign donors, conservation NGOs, and others crafted but also through the personal relationships they developed during this period, relationships that continue to influence environmental politics in Madagascar to this day. Throughout this process, although numerous actors advocated for decentralized and Malagasy-driven, integrated conservation and development approaches, the political, scientific, and financial strength of those pushing conservation, the lack of a strong counterbalancing force and the Antananarivo-centric processes often collectively overrode them. In short, the compromises needed to maintain the political coalitions necessary for environmental support hindered the pursuit of a more comprehensive environmental agenda.

The program's concentration on biodiversity reflected not just the efforts of a group of individuals and the timing of the World Bank's environmental interest but also the particular relations of governance brought about by the rise of neoliberalism. The neoliberal reduction of the state, the participatory turn in international development, the World Bank's adoption of the environment as a central issue, and the rising scientific attention to biodiversity enabled this assemblage to transform Madagascar's conservation agenda from a scientific issue to a political one. The push for participatory policy development legitimized non-state actors' influence on the environmental priorities even as the participation was primarily by Antananarivo-based and foreign actors. Likewise, the reduction of the Madagascar state under structural adjustment and the resulting lack of state capacity and accompanying need for foreign exchange created the conditions under which the Madagascar Government had to embrace donors' priorities. Collectively, these political and economic processes created the context needed for individual actors to push forward biodiversity conservation to become the centerpiece of the subsequent environmental agenda. In this sense, strict conservation often superseded the push for more decentralized, integrated approaches not just because of the advocacy efforts of a group of individuals and the timing of the World Bank's environmental interest but also because the particular relations of governance entailed in the rise of neoliberalism brought key actors into the negotiating room, where they could then become effective advocates. Thus, the achievement of effective and equitable conservation in Madagascar will require not only pushing more comprehensive and participatory programs, but also transforming the power relations that have both created Madagascar's environmental crisis and efforts to redress it.

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* Please contact the authors for a pdf of these unpublished documents.

SUPPLEMENTARY MATERIAL

Available online only.

Figure S1. Timeline of significant events