

CEPF Final Completion and Impact Report

Organization's Legal Name:	Madagascar Fauna and Flora Group
Project Title:	Indian House Crow Eradication and Invasive Species Surveillance
Grant Number:	CEPF-103646
Hotspot:	Madagascar and Indian Ocean Islands
Strategic Direction:	1 Empower local communities to protect and manage biodiversity in priority key biodiversity areas.
Grant Amount:	\$161,681.88
Project Dates:	February 01, 2019 - June 30, 2022
Date of Report:	August 31, 2022

IMPLEMENTATION PARTNERS

- Madagascar Fauna and Flora Group: Project coordination, permits/reporting. Led eradication from March 2020. Developed community invasive species surveillance and reporting network (CISSRN)/outreach workshops.
- Ministry of the Environment and Sustainable Development (MEDD/DREDD-Atsinanana): Permits for eradication/disease-screening. Agenda/content development of outreach workshops. Promotion with regional government. Oversight of eradication/CISSRN.
- Atsinanana Region: Facilitated President Fokontany workshops to develop CISSRN.
- Higher Institute of Sciences, the Environment and Sustainable Development, University of Toamasina: the Director was critical to securing permits/submitted reports to MEDD. Contribution to outreach workshops. Master's student supervision.
- InGrip Consulting: the Director contributed to project applications/plan, developed eradication methods and provided intensive training for project personnel/Master's students. Responsible for observations/surveys. InGrip's specialist purchased/imported air rifles, helped secure shooting permits, safety protocol and shooting to March 2020. Both gave free ongoing advice, vital to project success.
- Association Vahatra: Contributed to project applications. Developed/selected/supervised three invasive species Master's projects. Vahatra provided training for MFG personnel on disease-screening techniques. Coordinating disease-screening study with Chicago Field Museum.
- Association Varecia: eco-volunteers that helped extensively with workshops, surveys and final evaluation.
- Island Endemics Foundation contributed significantly to applications/method development/authorities' workshop to launch eradication/CISSRN. Intensive coaching of original project coordinator on invasive species management. Produced authorities' workshop report. Led Project Plan.
- Tropical Biodiversity and Social Enterprise: local crow distribution info/support Taolagnaro.

CONSERVATION IMPACTS

Planned Long-Term Impacts: 3+ years (as stated in the approved proposal)

Impact Description	Impact Summary
<p>The permanent eradication of invasive Indian house crow from Toamasina and adjacent areas by the end of Year 2 will prevent the establishment and expansion of the species across Madagascar and therefore eliminate the negative impacts of this species on biodiversity, human health, and human livelihoods in all of Madagascar.</p>	<p>The Toamasina house crow population was eradicated by 10 July 2021 and ongoing observations revealed that the city was free of house crows until 2 new arrivals were reported on 2nd June 2022 in the Port of Toamasina. Thanks to the community invasive species surveillance and reporting network, MFG learnt about the presence of these two individuals quickly and the project shooter was able to shoot one of the two birds on 28 June 2022, thereby again re-achieving a functional eradication as the single remaining bird cannot reproduce. Efforts will be made post end of project to remove the final individual. This will be part of MFG's commitment to ongoing long-term surveillance and control of this species in Toamasina. The species is in large numbers in the island of Mauritius, from which ships regularly come to the Port of Toamasina. As this species is known to disperse using ships the ongoing threat of reinvasion is high and we will need to remain vigilant to prevent the good work of this eradication being undone over the coming years. In addition the house crow population of Taolagnaro was also eradicated during the course of this project.</p>
<p>The Invasive Species Learning Network set up in Year 1 will facilitate the early detection and rapid response to new invasive vertebrates arriving in Madagascar via Toamasina. Ultimately this will help protect all of Madagascar's biodiversity, human health and human livelihoods from the significant negative impacts of invasive species.</p>	<p>The community invasive species surveillance and reporting network (CISSRN) has been set up and is actively functioning across 99 Fokontany in Toamasina I. The network was effective in the latter stages of the Toamasina house crow eradication and is proving extremely useful too in MFG's Asian Toad Control and Mitigation Programme. Efforts will need to be continued through MFG and partners' ongoing IAS programmes to keep awareness-levels high regarding the network and to maintain active contact with the network participants. MFG is working with the IUCN to push for a detailed IAS pathway analysis to be carried out for Madagascar as a whole so we can produce alert lists of species of specific concern, which will be shared with the network and local authorities around each major marine port or international airport. MFG has already been informed of the reinvasion of the house crow at the Port of Toamasina through the CISSRN on 2 June 2022 so it has already proven its</p>

Impact Description	Impact Summary
	value but much work remains to keep the network functioning and effective.
<p>The planned awareness-raising activities carried out in Year 1 will increase awareness of the threats posed by invasive species in general and the Indian house crow in particular to local biodiversity and the Malagasy economy in the local target communities.</p>	<p>Due to the COVID-19 pandemic many of our outreach activities were delayed until later in the project, some not being carried out until February 2022 (in the case of the ISSEDD university open day and intensive workshop). The analysis and write up of the results of our final evaluation carried out in collaboration with ISSEDD eco-volunteers were delayed due to the unexpected arrival of two new crows in the Port of Toamasina in June 2022. The Project Coordinator's efforts were concentrated on the immediate response to this new threat and hence the analysis was delayed and is still ongoing. It is very evident, however, that this project has had a very positive impact at least within the areas where the crow was dominant within the city and with local authorities through the provision of filmed interviews of main stakeholders with the Project Coordinator. In addition, as a direct result of this project's awareness-raising, the DREDD-Atsinanana has now been named the regional Focal Point for invasive species issues, which is a new role and highlights the importance accorded this issue by the former MEDD Minister. MEDD directors in the former and new cabinets have given their verbal support of the project and a high level of active support has been gained from local authorities.</p>
<p>The permanent eradication of the invasive Indian house crow by the end of Year 2 from the North Pangalanés KBA will prevent the establishment of the species, eliminate the species' negative impacts, and improve the biological integrity and conservation status of this KBA for the local biodiversity and communities living there.</p>	<p>The house crow eradication was achieved in the Toamasina area and all surveys carried out along the Pangalanés Canal during and post eradication did not reveal house crows. We believe that birds reported along the Canal had likely been dispersing from the main Toamasina population. The house crow was eradicated from Toamasina by 11th July 2021 and as such the KBAs of North Pangalanés but also Ambila Lemaintso and Vohibola are now safe from imminent invasion from this species. This species is known to have highly deleterious impacts on endemic reptiles in Mauritius and would also likely have predated native reptiles, frogs and bird chicks in the KBAs. The species also impacts domestic fowl production (as per reports from Toamasina) so the Toamasina eradication will have widespread positive impacts. As stressed throughout, this is a species with high international dispersive abilities and for the KBAs to be protected long term, vigilance will need to be maintained to stop the reinvasion of the species through the Port of Toamasina.</p>

Planned Short-Term Impacts: 1 to 3 years (as stated in the approved proposal)

Impact Description	Impact Summary
<p>At the end of Year 2, MFG's technical collaboration with InGrip consulting will have resulted in the eradication of Indian house crow from Toamasina and adjacent areas.</p>	<p>Achieved. The eradication was achieved by 10 July 2021 in Toamasina and 14 April 2022 in the additional site of Taolagnaro.</p>
<p>At the end of Year 2, two leading NGOs in Madagascar (MFG and Association Vahatra) will have developed technical capacity in invasive species management and be effective advocates for invasive species awareness and prevention in Toamasina, and in Madagascar.</p>	<p>Achieved. MFG and Association Vahatra are now most likely the two most active non-governmental organisation/associations promoting and carrying out invasive species research and/or active control and mitigation within Madagascar. MFG now has in-house staff that can independently monitor and control house crows in Madagascar and are also actively controlling and mitigating the impacts of the Asian toad and several highly invasive plant species. MFG's lobbying has resulted in the approval of the 2020 IUCN World Conservation Congress's resolution #100 to build capacity within Madagascar to deal with invasive species issues. This work is ongoing and includes collaborations with MEDD, DREDD Atsinanana, the Port Authorities of Toamasina, the IUCN's Environmental Law Centre and the World Commission on Environmental Law. The DREDD Atsinanana is now nominated the Regional Focal Point for Invasive Species (a completely new role created directly as a result of this project) and the former ISSEDD Director (and key partner in this project) is now nominated onto the National Biosecurity Committee, again at least in part due to this project.</p>
<p>By Year 1 Q3 as a result of this project's workshops, outreach communications and stakeholder activities, key members of local and national government and the Toamasina community will have formed a network to support the eradication of the Indian house crow and activities will be approved.</p>	<p>Achieved. An extremely effective partnership was created as a result of the initial authorities' launch workshop for this project. The workshop built the foundations on which the rest of the project depended. All required permits and authorisations (even air-rifle shooting permits for a built-up urban area) were secured throughout the project and in large part due to the strong relationships created during the first workshop. The subsequent awareness-raising workshops and activities ensured the setting up of the community invasive species surveillance and reporting network (CISSRN) that helped achieve the eradication and now continues to benefit MFG's Asian toad control and mitigation programme. This network was successful in signaling MFG to the arrival of two new house crows in the Port of Toamasina in June 2022 and hence facilitated MFG's quick response.</p>
<p>At the end of Year 2 as a result of the Invasive Species Reporting Network, sightings of Indian house crow and other focal IAS by village</p>	<p>Achieved. The community invasive species surveillance and reporting network (CISSRN) helped the team locate the last few remaining crows in Toamasina towards the end of the eradication effort</p>

Impact Description	Impact Summary
communities will enable a rapid resolution to the threat.	after they had become scarce and more erratic in their behaviour. This directly helped achieve the eradication and the CISSRN now continues to benefit MFG's Asian toad control and mitigation programme. This network was successful in signaling MFG to the arrival of two new house crows in the Port of Toamasina in June 2022 and hence facilitated MFG's quick response.
At the end of Year 2 as a result of the Master's students research, improved knowledge of the impacts of invasive Indian house crow and other focal IAS to Madagascar's biodiversity will help to build support from local and national government to develop future initiatives to address invasive species.	Achieved. The results of two of the Master's student projects were directly used to guide the house crow eradication effort in both Toamasina and Taolagnaro. Results of their studies were communicated to national and local authorities (MEDD, Governor Atsinanana, DREDD-Atsinanana, DREDD-Anosy, Préfets, Gendarmes and Police of the cities of Toamasina and Taolagnaro) and contributed to gaining the necessary permits and authorisations for the work to go ahead. The work of the two students also helped InGrip and MFG staff to specifically locate house crows for control work. One of the Master's students was employed by MFG as a consultant after she completed her Master's thesis and contributed significantly to the post eradication surveys and the Taolagnaro eradication.
At the end of Year 2, at least 30 university students and staff from Toamasina and Antananarivo will have improved their knowledge and understanding of invasive species, the threat to Madagascar, and the concepts and best practices required to manage them.	Achieved. 22 Master's I and 8 License 3 Bachelor's students came to Ivoloina for an intensive 6-day workshop from 14-19 February 2022 learning about the impacts of IAS internationally, in Madagascar and more locally in the Toamasina area and also carried out practical work including practicing IAS surveys, impact assessments, control and mitigation methods.

Unexpected impacts (positive or negative)?

The positive impacts of this project have been more than we had ever dared hope for. The outreach and capacity building that we have done as a result of this project and parallel projects by MFG to raise awareness of the impacts of invasive species and the need to manage them better in Madagascar has led to this issue being far more widely appreciated at the national ministerial level within the Ministry of the Environment and Sustainable Development (MEDD), at the regional level through the team of the Director of the Environment and Sustainable Development Atsinanana (DREDD-Atsinanana) and within the Atsinanana regional government. This has led to the DREDD-Atsinanana being nominated as the regional Focal Point for invasive species in Atsinanana (the main gateway of invasive species into Madagascar due to the largest marine port in the country being located in this region at Toamasina). This is a newly appointed position and reflects the positive change that this project in combination with the MFG's Asian Toad Control and Mitigation Project has effected.

Additionally, the Director of ISSEDD for the majority of this project, was recently nominated to the national Malagasy inter-ministerial Biosecurity Committee. This nomination is likely in large part to her active involvement in this project and MFG's Asian Toad Control and Mitigation Programme. Given her enthusiasm and motivation to proactively tackle invasive

species issues in Madagascar, this is an unforeseen but highly positive impact of the present project.

As a result of this project and MFG's parallel invasive species projects, MFG and Synchronicity Earth led the development of the IUCN Resolution #100 2020 to call for national and international support to help build capacity for dealing with invasive species issues within Madagascar. This initiative has been extremely well received by MEDD, DREDD and the Atsinanana regional government. MFG continues to work with the IUCN and local partners to push for progress on the Resolution's objectives (see "Other Information" for a copy of Resolution #100 2020).

In large part due to this project and also MFG's Asian Toad Control and Mitigation Programme, MFG is now in discussions with Toamasina's various Port Authorities and regional authorities and DREDD-Atsinanana to try to develop improved biosecurity protocols at the ports of Toamasina (marine and river) particularly to control movements of house crows and Asian toads but also other invasive alien species. This will be a long and ongoing process and MFG is seeking support from the top levels of MEDD and the IUCN to support this process.

Through this project MFG is also now collaborating with a conservation NGO in La Réunion, Island Restoration Initiative (<https://www.facebook.com/InitiativeRestaurationInsulaire>), who are planning to carry out parallel surveillance and control work on house crows and also lobbying for tighter biosecurity procedures in La Réunion's ports. We are sharing experiences and information to help us in our common goals.

PROJECT RESULTS/DELIVERABLES

Overall results of the project:

The project was a great success with the invasive house crow (*Corvus splendens*) population in the initial target population of Toamasina being successfully eradicated by July 2021. Despite trials, no birds were caught by either Larson's or ladder traps and the majority of the birds (42 out of 45 in Toamasina) were shot by the international shooting specialist from InGrip Consulting before he was evacuated ahead of the Madagascar COVID-19 border closure in March 2020. At that time just one house crow remained. Two new crows were observed in Toamasina on 29th Jun 2020 and 2 of the 3 birds were found nesting with 3 juveniles in feather on 13th Nov 2020. They fledged by 30th Nov 2020, bringing the Toamasina house crow population back up to 6 individuals. By end Dec 2020 one of the birds had disappeared leaving 5 house crows.

Due to the ongoing COVID-19 pandemic it became evident that a new strategy was needed as the international consultants weren't able to return to Madagascar and the population was rapidly increasing. MFG turned to two of their own Conservation Agents usually based at Betampona Reserve, who are the project darters. The Head Agent of the Betampona MFG team, had very limited availability. A second darter had been seconded to this project from the outset and had worked closely with InGrip specialists, so it was decided to assign him in the role of project shooter long-term. Thanks to his natural aptitude, intensive training with paper targets and the excellent field support and observations assured by the Project Coordinator, the MFG darter was successfully able to shoot 3 of the 5 Toamasina crows (the last of which was shot on 9th July 2021).

Field observations and post-mortems examinations of some of the last crows revealed that some had injuries consistent with catapult attacks. The Project Coordinator suspected that managers from the city abattoir (one of the main feeding sites for the crows) were paying children to control them. As of 10 Jul 2022 the last two remaining crows disappeared and despite extensive searches by MFG staff and ISSEDD eco-volunteers were not seen again and were presumed to have been killed.

Eradication efforts then switched to Taolagnaro (Fort Dauphin), where one of the Master's students supported by this project had confirmed the presence of 3 house crows. Over two shooting periods in late 2021 and April 2022, the MFG darter was able to shoot all three individuals, thereby eradicating the Taolagnaro house crow population.

Given the extreme intelligence of this species, the recognised difficulty to control them and the very challenging weather conditions through many of the MFG darter's shooting attempts, we are delighted with the team's ability to successfully carry out control work on house crows. This is an extremely important step forwards in building capacity within Madagascar to deal in-house with invasive species control and is also a testament to the excellent training and ongoing advice shared by the InGrip specialists.

1,160 person/hours of post-eradication surveys were carried out across Toamasina by MFG staff and 874 households surveyed by ISSEDD eco-volunteers to the South, North and in the former strongholds of the house crows in Toamasina to confirm eradication success. Field time was limited in Taolagnaro but 30 person/hours of searches were completed post eradication and no further house crow observations were made.

During the eradications as many cadavers as possible were collected for morphometric and disease-screening analysis coordinated by Association Vahatra. A subset was sent to Mahaliana laboratory in Madagascar, where they were PCR screened for *Mycoplasma gallisepticum* (a respiratory bacteria of chickens that can affect wild birds). Of the 21 tracheal swabs tested, all were negative. Samples are presently being screened for *Plasmodium* (avian malaria) by PCR and funds sought to also screen intestinal parasites (helminths and protozoa) from fecal samples using standard parasitology techniques. Further samples were exported to Chicago Field Museum where they will form part of a Madagascar-wide study to elucidate the impact of invasive birds on native Malagasy bird blood parasites.

As important as the eradication, an effective community invasive species surveillance and reporting network (CISSRN) has been installed around Toamasina, the main port town of Madagascar and hence the main entry point for invasive alien species (IAS) into Madagascar, to protect against future reinvasions of house crows and other problematic IAS. The network utilises pre-existing administrative structures through the President Fokontany who officially manage villages/grouped units of hamlets. The network approach was developed in consultation with local authorities and a focus group of representatives from 40 Fokontany during a workshop in Dec 2020. The approach was then shared with representatives of a further 99 Fokontany in a follow up workshop in Aug 2021 when all 99 agreed to join the network. The network proved extremely effective in the latter stages of the eradication when crows were becoming scarce and harder to find. Through the network MFG was notified on 2nd Jun 2022 of the arrival of two new house crows in the port of Toamasina. Thanks to the early detection, the MFG darter was quickly deployed and was able to shoot one of the two new crows by 28 June 2022, just days before the existing permit expired, thereby re-achieving functional eradication by preventing the possibility of breeding. This provides resounding proof of the effectiveness of the CISSRN and MFG has developed a long-term surveillance plan in collaboration with various project partners to manage the ongoing risk of reinvasion by this highly mobile species. MFG will continue to develop and expand the CISSRN over the coming years through ongoing MFG IAS projects. It will be recommended to MEDD as a model for replication in other major Malagasy marine ports.

As well as the two President Fokontany workshops, MFG and partners at ISSEDD and DREDD Atsinanana also hosted an array of outreach and awareness-raising events over the

course of this project. To launch the project, a workshop was carried out with national and regional authorities in Atsinanana to explain the serious risks posed by IAS internationally and in Madagascar, explain the goals of the project and to work collaboratively together to develop a Project Plan. This workshop set extremely firm foundations for the rest of the project and built relationships that have been essential to the successful completion of the project. Many potential pitfalls were avoided thanks to advice and guidance received during this initial project launch workshop from the participating authorities. An open day on IAS was organised at the University of Toamasina for 82 participants on 11th Feb 2022 and a 6-day intensive workshop for 30 ISSEDD students at Parc Ivoloina from 14-19 Feb 2022 to learn more about IAS and practical survey, control and management methods. In addition, 2 posters, a leaflet, radio emissions and an educational film were developed to further raise awareness of the risks and impacts associated with IAS in Madagascar and to enlist the help of members of the local communities to contribute observations to the CISSRN via the "greenline" freephone number established by MFG in a parallel project on the invasive Asian toad.

4 Master's II projects on IAS themes were successfully completed through this project: 3 supervised by Vahatra and 1 by ISSEDD/MFG. 2 of the projects contributed directly to the success of the eradication: one on the population dynamics of the Toamasina house crow population and one to survey the main marine ports of Madagascar for house crows (leading to confirmation of the Taolagnaro population).

Results for each deliverable:

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
1.0	Eradication of invasive Indian house crow from Toamasina and adjacent areas.	1.1	One workshop-day with project partners and stakeholders to gather crow information, establish a local working group, define project objectives, roles & responsibilities, and a workplan (see Activity 2.1.2).	Achieved. This initial workshop firmly started the process to develop the community invasive species surveillance and reporting network and laid the collaborative foundations for the whole project. Contacts made during this initial workshop with the Port Authorities of Toamasina (river and marine), regional government and other key stakeholders proved invaluable for securing permissions and support for the rest of the project. The group were able to identify many potential pitfalls, some of which we had not previously considered, before beginning the project, helping us to develop the project plan to avoid the pitfalls. Through this workshop we were made aware of permitting procedures that we had not anticipated and this greatly increased the efficiency of securing the necessary permissions for the project.
1.0	Eradication of invasive Indian house crow from Toamasina and adjacent areas.	1.2	A Project Plan document that presents the project approach, field surveys and inventories, technical operations, and monitoring of crows.	Achieved. The process was led by Island Endemics Foundation with significant input from the Project Leader and the Director of InGrip Consulting. The Project plan took into careful consideration the findings of the initial authorities' launch workshop.
1.0	Eradication of invasive Indian house crow from Toamasina and adjacent areas.	1.3	Local support for the project will be demonstrated by provision of letters of support from local	Achieved. Letters of support and authorisations for the project were received from several key authorities including the Governor of the Atsinanana Region, the

Component		Deliverable		
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			stakeholders following awareness-raising efforts about the crow, its impact, and the intended activities.	Prefets and DREDDs of Toamasina and Taolagnaro, MEDD. As well as support in writing for the project, several of these figures or their deputies gave filmed interviews expressing their support for the project. Positive feedback was also received from the majority of participants in the outreach activities.
1.0	Eradication of invasive Indian house crow from Toamasina and adjacent areas.	1.4	An inventory of Indian house crow population in Toamasina & adjacent areas.	Achieved. Carried out initially by an ISSEDD Master's student (not funded by this project) supervised by MFG and then followed by intensive surveys by InGrip Consulting and MFG personnel. Later reinforced by eco-volunteer surveys and interviews in local communities. Toamasina I and II, Ambodimanga-Volobe, North to Foulpointe and South along the Pangalanes Canal were surveyed with particular attention being paid to areas that had had unconfirmed house crows reported. The Pangalanes Canal was surveyed on at least 3 separate missions and no crows were ever discovered. An accurate idea was built up of the house crow's distribution, roosts and feeding areas.
1.0	Eradication of invasive Indian house crow from Toamasina and adjacent areas.	1.5	At least one member of staff from MFG and one from Association Vahatra are trained by InGrip consultants in best practices for trapping and removing invasive Indian house crows	Partially Achieved. The InGrip specialists provided introductory safety training for 4 members of MFG's staff and the ISSEDD Master's student. Two of MFG's staff then received intensive ongoing training in the field as well as the Association Vahatra Master's student. The Vahatra dedicated member of

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				staff that was intended to receive the training with the InGrip specialists came to the end of his contract with Vahatra and was no longer available by the time the InGrip specialists were in country.
1.0	Eradication of invasive Indian house crow from Toamasina and adjacent areas.	1.6	Invasive Indian house crow eradication from Toamasina and adjacent areas.	Achieved. The Toamasina eradication was achieved by 10 July 2021 and the extra Taolagnaro eradication by 14 April 2022.
2.0	An Invasive Species Learning Network in the Toamasina area to increase awareness of, and develop community responsibility for, IAS detection and reporting to local and national authorities to improve IAS prevention and rapid response.	2.1	Increased awareness among local communities about invasive species, impacts to livelihoods and biodiversity will be demonstrated through provision of statistics of people attending awareness-raising activities and before/after knowledge questionnaires .	Achieved. Numbers of people attending awareness-raising activities are recorded in the "Benefits to Individuals" section. Before and after knowledge quizzes were performed at each workshop and any gaps in knowledge noted to improve subsequent workshops.
2.0	An Invasive Species Learning Network in the Toamasina area to increase awareness of, and develop community responsibility for, IAS detection and reporting to local and national authorities to improve IAS prevention and rapid response.	2.3	A written evaluation of IAS knowledge and awareness as a result of the project.	Partially achieved. The final project evaluation was completed with 874 households being interviewed by ISSEDD eco-volunteers. The information is presently being analysed and collated and a final report produced. In addition several filmed interviews were made with local authorities and people that had been affected by the crows' presence recording their reactions to the project, which has also been compiled into a short film for emission by television.

Component		Deliverable		
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2.0	An Invasive Species Learning Network in the Toamasina area to increase awareness of, and develop community responsibility for, IAS detection and reporting to local and national authorities to improve IAS prevention and rapid response.	2.2	A community reporting system for IAS detection in the Toamasina region.	Achieved. A functioning community invasive species surveillance and reporting network (CISSRN) has been established in 99 Fokontany across Toamasina I, the main city areas surrounding the Port of Toamasina. MFG will continue to build on this strong foundation through our ongoing Asian Toad Control and Mitigation Programme. The network has been strongly supported by local authorities such as DREDD-Atsinanana, Governor of Atsinanana, Préfet of Toamasina and also at the national level by MEDD officials. The former Minister and Director General of Environmental Management (DGGE) of MEDD were keen to see the network replicated across Madagascar at all major marine ports. Since these posts have been replaced in recent months we are seeking to renew the dialogue to promote this initiative. The network provided useful information during the latter stages of the Toamasina house crow eradication as birds became scarce and harder to find. The network will help contribute to protecting Madagascar from the threat of invasive alien species by allowing an "early detection, rapid response" capability that has previously been impossible in Madagascar. As the main port of entry for the majority of goods into Madagascar, this network around the Port of Toamasina is particularly critical.

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3.0	Build in-country capacity to evaluate the impact of invasive species on native species and habitats in Madagascar.	3.1	Three local students including at least one woman complete their Master's research and submit thesis in invasive species ecology and impacts, including themes on Indian house crow and Asian toad, by project end.	Achieved. 3 Master's students completed their theses on IAS themes supported by this project: 2 female and 1 male, 2 of which were developed and supervised by Association Vahatra and 1 by ISSEDD and MFG. Two studies were carried out on the house crow: one to survey all marine ports in Madagascar for house crows and another on the population dynamic and morphology of house crows in Toamasina. Another study was carried out on invasive house sparrow population dynamics and feeding ecology. MFG has supported 4 Master's students to complete studies on invasive Asian toads but using other MFG funding.
3.0	Build in-country capacity to evaluate the impact of invasive species on native species and habitats in Madagascar.	3.2	Increased knowledge of IAS issues, monitoring and control/mitigation methods demonstrated by attendance statistics and before/after questionnaires during a 5-day intensive training course for ISSEDD, University of Toamasina Master's students and staff.	Achieved. 22 Master's I and 8 Licence 3 students (20 female and 10 male) from ISSEDD came to Ivoloina for an intensive training course from 14-19th February 2022 to learn about the impacts of IAS internationally, in Madagascar and more locally around the Toamasina area. They then carried out a series of practical classes in the field to learn how to monitor, control and mitigate the impacts of invasive species. Presentations and field classes were held by MFG staff involved in invasive plant control, Asian toad control, delimitation, impact assessment and mitigation and theoretical classes sharing the project techniques by the house crow Project Coordinator (by that time

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				the crows had been eradicated in Toamasina). Before and after questionnaires were completed.
1.0	Eradication of invasive Indian house crow from Toamasina and adjacent areas.	1.7	Six-monthly safeguard monitoring reports submitted to CEPF.	Achieved. Submitted as part of the 6-monthly technical reports.

Tools, products or methodologies that resulted from the project or contributed to the results:

At the beginning of the project a Project Plan was developed with all project methodologies and protocols in consultation with all project partners. Consultants from Island Endemics and InGrip Consulting were particularly proactive in the development of this plan. A shooting safety protocol was developed by InGrip's shooting specialist, to ensure safety was always assured for this particularly challenging project involving shooting with an air rifle in the built-up cities of Toamasina and Taloagnaro. Both documents can be found in "Other Information".

The IUCN's World Conservation Congress 2020 Resolution #100 resulted in large part from this project and MFG's Asian Toad Control and Mitigation Programme.

Three IAS Master's theses were produced directly through this project: Copies of the theses can be found in the "Other Information" tab.

Three peer reviewed publications are in press for Malagasy Nature Volume 16 by the two Association Vahatra IAS Master's students:

- Raolihanitrasina, S. E., Goodman, S. M. & Raherilalao, M. J. 2022. Tendence de la population de *Passer domesticus* (famille des Ploceidae), une espèce d'oiseau envahissant, dans la ville de Toamasina, Madagascar. *Malagasy Nature*, 16: xx-xx.
- Raobson, E., Goodman, S. M. & Raherilalao, M. J. 2022. Distribution spatiale de trois espèces d'oiseaux envahissants dans les villes portuaires de Madagascar. *Malagasy Nature*, 16: xx-xx.
- Raolihanitrasina, S. E., Raherilalao, M. J., Rajemison, B. & Goodman, S. M. 2022. Etude du régime alimentaire du moineau domestique *Passer domesticus* (famille des Passeridae) dans la ville de Toamasina, Madagascar. *Malagasy Nature*, 16: xx-xx.

Copies of the papers will be emailed to CEPF once published.

MFG is working with all the project partners to complete a peer-reviewed publication of the house crow eradication and the role of the Invasive Species Surveillance and Surveillance and Reporting Network over the coming months.

Through the project, two dedicated posters and a leaflet were created to raise awareness of the threat posed by the house crow, how to distinguish the house crow from the native crow in Madagascar and to ask for information on any sightings to be reported through MFG's freephone "greenline" number to help guide the eradication effort.

MFG created a special edition of their twice-yearly Malagasy awareness-raising newsletter, Bitsik'a Ivoloina dedicated to invasive species issues and MFG and partners' efforts to control and mitigate some of the most problematic species in the Toamasina area. As the issue was such an important one, MFG also did an extra print run with a French translation of the same material for circulation in local Malagasy secondary schools. Dedicated radio emissions were also created and aired on the same issue.

As per the recommendation from Tany Meva during our mid-project review, an emission on the house crow eradication and the surveillance network has been developed for wider sharing on Malagasy television networks.

PORTFOLIO INDICATORS

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
0	At least 10 partnerships and networks formed among civil society, government and communities to leverage complementary capacities and maximize impact in support of the ecosystem profile.			1	1 network: 99 Fokontanys (village administrative units sometimes comprising several small villages/hamlets) in the Toamasina I and II areas of the Atsinanana Region of eastern Madagascar agreed to join our Community Invasive Species Surveillance and Information Network following training provided through this project to actively monitor and report any newly arriving invasive species or invasive species of specific interest in their Fokontany to MFG and/or local authorities, namely the Direction de l'Environnement et Développement Durable (DREDD)-Atsinanana. This

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
					will help reduce the threats of negative impacts from newly-arrived invasive species in these areas due to the principle of "Early Detection, Rapid Response" for the successful treatment of invasive species issues. The sooner local authorities and conservation NGOs such as MFG are aware of new threats, the quicker they can be dealt with. The network was already instrumental in the successful completion of the Toamasina house crow eradication and is now actively helping in the fight against the toxic and highly invasive toad (<i>Duttaphyrnus melanostictus</i>).
1.1	Threat levels to at least 25 priority sites reduced through locally relevant conservation actions implemented by local communities.			3	Three priority sites: North Pangalanes (MDG-137) (6,152 ha), Wetland of Ambila-Lemaintso (MDG-209) (828 ha), NAP Forêt Classée de Vohibola (MDG-107) (2,237 ha) were all in imminent threat of being invaded by house crows had the Toamasina sub-population continued to expand. Unconfirmed

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
					sightings had already been reported along the Pangalanes Canal south of Toamasina before and during the course of the project, which we believe to have been birds originating from the Toamasina sub-population. In addition NAP Tsitongambarika (54,339 ha) just 9 km outside Taolagnaro and the nearby NAP Mandeno (231 ha) could also have been at risk of invasion from the house crow had the sub-population of 3 house crows there started to expand. We do not include these extra 2 KBAs in our totals as we have no information on any potential sightings of house crows in these KBAs, nor proof of imminent likelihood of expansion of this sub-population as we do for Toamasina. Moreover, they are not priority sites for CEPF investment.
1.2	Awareness of the values of biodiversity and the nature of threats and drivers raised among local			0	

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
	communities in at least 25 priority sites.				
3.4	At least one regional network is created or reinforced allowing exchange of experience and mutual support at the regional level, enabling collective responses to priority and emerging threats.			0	

GLOBAL INDICATORS

Protected Areas

Protected areas that have been created and/or expanded as a result of the project. Protected areas may include private or community reserves, municipal or provincial parks, or other designations where biodiversity conservation is an official management goal.

Name of Protected Area	WDPA ID*	Latitude	Longitude	Country	Original Total Size (Hectares) **	New Protected Hectares ***	Year of Legal Declaration or Expansion
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*World Database of Protected Areas

**If this is a new protected area, 0 should appear in this column

*** This column excludes the original total size of the protected area.

Key Biodiversity Area Management

Key Biodiversity Areas (KBAs) under improved management—where tangible results have been achieved to support conservation—as a result of the project.

KBA Name	KBA Code	Size of KBA	Number of Hectares with Improved Management
Ambila-Lemaintso wetland	MDG209		828
Vohibola Classified Forest NPA	MDG107		2,237
North Pangalane	MDG137		6,152

Production Landscapes

Production landscapes with strengthened management of biodiversity as a result of the project.

A production landscape is defined as a site outside a protected area where commercial agriculture, forestry or natural product exploitation occurs.

Name of Production Landscape	Latitude	Longitude	Hectares Strengthened	Intervention
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Benefits to Individuals

- Structured Training:**

Number of Men Trained	Number of Women Trained	Topics of Training
195	194	Invasive species surveillance, impacts, management and mitigation Disease screening methods Safety training (trapping and shooting) Observation and survey skills

- Cash Benefits:**

Number of Men – Cash Benefits	Number of Women – Cash Benefits	Description of Benefits

Benefits to Communities

View the characteristics column below with the following corresponding codes:	View the benefits column below with the following corresponding codes:
1- Small Landowners	a. Increased Access to Clean Water
2- Subsistence Economy	b. Increased Food Security
3- Indigenous/ Ethnic Peoples	c. Increased Access to Energy
4- Pastoralists / Nomadic Peoples	d. Increased Access to Public Services
5- Recent Migrants	e. Increased Resilience to Climate Change
6- Urban Communities	f. Improved Land Tenure
7- Other	g. Improved Use of Traditional Knowledge
	h. Improved Decision-Making
	i. Improved Access to Ecosystem Services

Community Name	Community Characteristics							Type of Benefit									Country	Number of Males Benefitting	Number of Females Benefitting
	1	2	3	4	5	6	7	a	b	c	d	e	f	g	h	i			
40 Fokontany in the Administrative Districts of Anjoma and Ambodimanga in the city of Toamasina (based on the Pres Fokontany's estimation of 70% of the population keeping chickens)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Madagascar	15985	23978										

Characteristics of "Other" Communities:

Policies, Laws and Regulations

View the topics column below with the following corresponding codes:			
A- Agriculture	E- Energy	I- Planning/Zoning	M- Tourism
B- Climate	F- Fisheries	J- Pollution	N- Transportation
C- Ecosystem Management	G- Forestry	K- Protected Areas	O- Wildlife Trade
D- Education	H- Mining and Quarrying	L- Species Protection	P- Other

No.	Name of Law	Scope	Topics															
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P

“Other” Topics Addressed by the Policy, Law or Regulation:

No.	Country/ Countries	Date Enacted/ Amended	Expected impact	Action Performed to Achieve the Enactment/ Amendment
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Companies Adopting Biodiversity-friendly Practices

A company is defined as a for-profit business entity. A biodiversity-friendly practice is one that conserves or uses natural resources in a sustainable manner.

Name of Company	Description of Biodiversity-Friendly Practice	Country/Countries where Practice was Adopted
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Networks and Partnerships

Networks/partnerships should have some lasting benefit beyond immediate project implementation. Informal networks/partnerships are acceptable.

Name of Network/Partnership	Year Established	Country/Countries	Established by Project?	Purpose
Community Invasive Species Surveillance and Reporting Network	2021	Madagascar	Yes	<p>The community-based invasive species surveillance and reporting network has a threefold purpose:</p> <ul style="list-style-type: none"> • To raise awareness within local communities of the impacts of invasive alien species (IAS) worldwide, within Madagascar and also on the more local scale • To share alerts and information on any particularly problematic species eg. the toxic Asian Toad (<i>Duttaphrynus melanostictus</i>) that poses a direct threat to human health • To facilitate the sharing of sightings by local communities with MFG and regional authorities of any newly-arrived IAS (to enable an "early detection, rapid response" capability) or existing IAS of particular interest such as the house crow and Asian toad to better prioritise and target active control or mitigation measures

Sustainable Financing

Sustainable financing mechanisms generate funding for the long-term (generally five or more years). These include, but are not limited to, conservation trust funds, debt-for-nature swaps, payment for ecosystem services (PES) schemes, and other revenue, fee or tax schemes that generate long-term funding for conservation.

Name of Mechanism	Purpose	Date Established	Description	Country/Countries	Project Intervention	Delivery of Funds?
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Globally Threatened Species

Globally threatened species (CR, EN, VU) on the IUCN Red List of Threatened Species, benefitting from the project.

Genus	Species	Common Name (English)	Status	Intervention	Population Trend at Site
Phelsuma	antanosy		CR	Removal of invasive species (house crow) that would likely predate them	Unknown
Calumma	vohibola		EN	Removal of invasive species (house crow) that would likely predate them	Unknown
Phelsuma	serraticauda		EN	Removal of invasive species (house crow) that would likely predate them	Unknown

LESSONS LEARNED

At the start of the project, we gathered all the key stakeholder authorities that were likely to be implicated in the project for a 3-day working meeting to explain the project goals and to collaboratively explore possible challenges, potential solutions and develop a project plan. This exercise was extremely successful and built the foundations on which the rest of the project was based. On numerous occasions the relationships we had built or reinforced during this initial launch workshop proved vital for securing support or authorisations for project activities. Several potential pitfalls were also highlighted, and we were made aware of legislation and procedures that we had not previously known about (such as the need to have the Préfet's permission to gather President Fokontany and to set up an invasive species surveillance and reporting network). This process no doubt saved us a lot of time in the long run and avoided us inadvertently breaking the law.

COVID-19 related delays were a huge issue for us during a large part of the course of this project, particularly in respect of the Malagasy border closure for an extended period, and due to national and regional travel and work restrictions. We took a very cautious approach and even when travel and meeting restrictions were lifted, we continued to avoid gathering large groups together or sending field staff from the large urban centre of Toamasina (a COVID-19 hotspot) to more remote rural areas. This greatly delayed the house-crow eradication, post eradication surveys and many of our outreach activities. As such we ended up with a lot of very important tasks still to do towards the end of the project (even after two no-cost project extensions kindly awarded to us by CEPF). We did hire a consultant (one of the Master's student supported by the project after they had graduated) to help with some aspects of our work but in hindsight we should have considered requesting permission to hire further help. We also should have set ourselves stricter internal deadlines during the last few months of the project to ensure that all required reports were delivered in a timely fashion.

Once the InGrip shooting specialist had to be evacuated, ahead of the Madagascar border closure, we had to find an alternative in-country shooter. Two of our MFG staff had experience darting lemurs at Betampona Strict Nature Reserve and the most experienced was also our Head Conservation Agent. With his agreement we seconded our Head Agent to the crow eradication for a period of two months with regular trips back to Betampona in between. We had not anticipated how stressful he would find it to juggle his different responsibilities nor how difficult he would find it to attempt to shoot crows. He understood and agreed with the need to eradicate the house crows to protect Madagascar's native biodiversity but finally, having spent a long career protecting wildlife, found the mental switch too difficult. In hindsight we should have realised his moral dilemma sooner and found an alternative shooter earlier. For any invasive species control work, especially when being asked of people who have based their careers on the protection of animals, we need to be particularly sensitive to the impacts that our requests may have and make sure that we check up regularly on how they are feeling about the work requested of them.

Again, after the unexpected evacuation of the InGrip international specialists due to the COVID-19 related Madagascar border closure, we were left in a situation whereby our own team had to take on completely new responsibilities in some instances. The ongoing technical advice given by the two InGrip specialists, even when given remotely, was critical to the project's final success. For discussing even very technical issues such as a minor gun repair, the use of online video calls proved invaluable.

This project involved multiple partners from multiple countries. It was extremely important to maintain regular communications with all active project partners. It took a lot of time in

some instances having to get translations done between 3 different languages (English, French and Malagasy). In hindsight we should have allowed more time for this process and also a dedicated budget line for translations.

SUSTAINABILITY/REPLICATION

Due to MFG's long-term commitment to working in and around Toamasina, which goes back 34 years, this project, though discrete, was able to slot into the larger framework of MFG's invasive species programme. It would have been extremely difficult to achieve project success within the relatively short project timeframe without already having strong and trusting relationships in place with local authorities. This long-term commitment to the area and to local conservation almost certainly had an impact on our ability to secure the required permits and authorisations, particularly as regards shooting with an air-rifle in an urban area. It would have been much harder for a new organisation to achieve this from scratch. In addition, the ongoing control work required to prevent reinvasion of the house crow and ongoing functioning of the community-invasive species surveillance and reporting network (CISSRN) requires an ongoing long-term presence in Toamasina. MFG has committed to continue working to ensure these roles in partnership with DREDD-Atsinanana in the coming years but any new organisation to the area would have either needed to make a longer-term commitment to the area or identify local partners to try to ensure this same level of follow up required to ensure sustainability of the project successes. Ideally the management of the CISSRN should eventually be completely transferred to DREDD Atsinanana and MFG will continue discussions with DREDD-Atsinanana and MEDD to establish the feasibility of that transfer given present financial and personnel availability limitations. MFG is working with the IUCN and other partners (international and national) to lobby for greater capacity building and resources within Madagascar for IAS management (World Conservation Congress 2020 Resolution #100) and ideally responsibility for the long-term control of house crows and other IAS should also eventually be transferred to MEDD.

MFG now has an in-house national team that are capable of monitoring and controlling the highly invasive and challenging house-crow. The methods employed can be shared and replicated in other parts of the country. A new air-rifle was purchased at the end of the grant to facilitate the required ongoing control work as the original project rifle had deteriorated in condition due to the extremely salty and sandy conditions it had been used in in both Toamasina and Taolagnaro. Training is being sought on gun maintenance to ensure better durability of this essential item (none was identified by the end of the project despite efforts of the Project Coordinator but MFG will continue to try to identify a suitable trainer and fund it with MFG funds).

The Toamasina CISSRN is a highly replicable model that should be able to be implemented in and around all major marine ports across Madagascar (and further afield). The running costs are relatively low (requiring mainly just funds for telephone communications with President Fokontany and other key stakeholders to check in with them on a 6-monthly basis to see if they have any new observations of note and to allow the establishment of a free-phone telephone number for them to ring in new observations with no personal cost but personnel need to be assigned to be responsible for these regular communications and monitoring of the freephone line. There are, however, some considerable costs involved for the required workshops to launch the network in a new area that would need to be identified from other funding sources. The bigger question is who would be expected to deal with sightings of new IAS and that returns again to MFG's larger lobbying efforts to increase capacity and resources within Madagascar to deal with these issues in the long-term. This

initial house crow eradication in Toamasina and Taolagnaro is a great first step for IAS management in Madagascar, but much remains to be done to ensure that the effort can be sustained and expanded long-term across the whole of Madagascar. We have recently received confirmed reports of house crows in Mahajanga, and funds will now need to be sought urgently to tackle this independent sub-population. At present we do not know how many individuals there are but we have photos showing at least 2 individuals. To prevent the expansion of this population into other areas of Madagascar and the inadvertent transfer of individuals by boat back to Toamasina or Taolagnaro (commercial boats circle Madagascar going from port to port on a weekly basis) a CISSRN needs to be urgently established in Mahajanga and control work organised as quickly as possible. MFG is already trying to obtain more information to evaluate the size and distribution of the population. This recent finding highlights the need for an integrated-country-wide approach to IAS monitoring and management, which will take commitment for many years from a variety of national and international partners to move forwards. Only with this sort of system in place can a project such as the present one be truly sustainable.

ENVIRONMENTAL AND SOCIAL SAFEGUARDS/STANDARDS

A large amount of time has been dedicated to ensuring a comprehensive programme of awareness-raising for all aspects of this project to avoid any misunderstandings of intentions or activities. These meetings have been carried out at the regional government, Fokontany and on a local door to door level around key intervention sites. We explained the project fully and secured individual permissions from each landowner at every site of intervention. In every case without exception, landowners were supportive of the planned eradication and gave their permission to proceed. For Toamasina, meetings were set up with the Préfet of Toamasina to gain permission for the InGrip Consulting shooting specialist, and then later MFG's own darters, to shoot with an air-rifle in the city. The Préfet in turn informed all the President Fokontany, the Gendarmes and Police in a scheduled security meeting. For Taolagnaro, meetings were set up with the Préfet of Taolagnaro, the Anosy Regional Director (DREDD Anosy) of the Ministère de l'Environnement et Développement Durable (MEDD), the Gendarmes and the police to gain necessary permission for our darter to shoot in Fort Dauphin.

A site-specific shooting safety protocol (in "Other Information") was developed by the InGrip Consulting shooting specialist, who has over 30 years' shooting experience in conservation projects around the world, several of which involving the use of firearms in built up urban environments. The specialist was selected for this project as he is considered one of the world's leading invasive bird shooting specialists and had already carried out the only successful eradication of house crows in the world (in Socatra, Yemen) alongside the Director of InGrip Consulting and local partners. The InGrip team held intensive safety training sessions with all project personnel and Master's students at the beginning of the field work and provided all required safety equipment.

After his enforced evacuation due to the COVID-19 Madagascar border closure, the two MFG trained lemur darters replaced InGrip's shooting specialist as the main project shooters. One had had military training in his younger days, including weapons training. The other had worked alongside InGrip's shooting specialist since the outset of the field project helping with observations, recovery of shot birds and disease screening so although there was no opportunity for direct handover training due to the unexpected border closure, the MFG darter had a very good understanding of the approaches adopted by InGrip's shooting specialist for shooting. The two MFG darters always followed the shooting protocol developed by InGrip's shooting specialist to reduce risk of accidental harm to people or property. All shooting was carried out with the prior consent of landowners, having been given a pre-agreed time. No shots were taken if deemed unsafe. The gun was never in sight

publicly. The shooter always had nearby support staff (or local guides in the case of Taolagnaro) so they were not alone in the field. MFG took out a public liability insurance policy in the unlikely case of an accident occurring.

As per the project protocols and training, protective gloves and clothes were worn whilst handling crow cadavers and during disease screening analysis. MFG staff and eco-volunteers were required to wear face masks, wash hands frequently and maintain physical distancing during fieldwork to prevent any inadvertent transmission of coronavirus. Field surveys and planned workshops were delayed during the peak COVID-19 infection periods in Madagascar to avoid risks of inadvertent transmission. Even when government-imposed work and travel restrictions were lifted MFG maintained a very cautious approach to organising any group activities or sending field staff to remote rural areas from Toamasina, which was a COVID-19 hotspot within Madagascar. Project extensions were sought and awarded from CEPF to compensate for these unexpected delays.

During field work on the Pangalanes the staff and students were required to always wear life jackets while on the boat. All national and regional legislation was respected. During the course of this project MFG developed and adopted a formal safeguarding policy (in "Other Information" to protect all members of staff, researchers, students, volunteers and any stakeholders working with MFG covering diverse aspects such as gender equality, ensuring safety from bullying and harassment, formal complaint procedures and suchlike.

ADDITIONAL COMMENTS/RECOMMENDATIONS

One of the most important parts of this project was the building of strong partnerships. There were many partners that actively participated and some (such as the Taolagnaro authorities) we have not even been able to list in this report due to the extremely limited character limit (2000 characters) for the section to detail partners and their roles. We appreciate that you need to keep the reports as succinct as possible but feel we have not been able to do justice to the efforts made by some. We rely on these ongoing partnerships and will share this report with them so it would be good for future reporting cycles if you could allow a larger character limit for this section.

Biodiversity protection is an extremely important aspect of conservation and this grant has enabled some really critical work to protect Madagascar's biodiversity, economy and human health. It is not always easy to identify funding for invasive species management even though it has been clearly linked as a major cause of loss of biodiversity worldwide and particularly on island systems. The support from CEPF for the present project was particularly valuable due to the rarity of other available funding options for the house crow eradication and we hope that invasive species control will remain within CEPF's remit in future funding rounds. This project has facilitated a major step forwards for IAS management in Madagascar but there is much that remains to be done to keep the momentum going and very limited funding options for NGOs for this sort of work. We have been extremely grateful to the CEPF team who have given us some very valuable and constructive feedback throughout the course of this project. CEPF's flexibility to allow us to deal with severe project delays relating to the COVID-19 pandemic and also to follow the opportunity to extend the eradication efforts to Taolagnaro were greatly appreciated and have led to a far greater overall impact for the project than originally anticipated. If there were any scope to extend house crow eradication efforts to Mahajanga to try to complete a country-wide eradication in Madagascar in collaboration with CEPF, MFG would be extremely interested to pursue that possibility.

ADDITIONAL FUNDING

Total Amount of Additional Funding Actually Secured (USD)	\$83,968.00
Breakdown of Additional Funding	<p>Chicago Field Museum, bird blood parasite screening: 1400 bird samples (which include the Corvus and Passer sample collected in Toamasina in the context of the CEPF grant) x \$10 each for kits and reagents = \$14,000 5 months of technician time x \$3,500 per month = \$17,500</p> <p>Vahatra staff time: 2 persons x 2 months x \$1,500 per month = \$6,000</p> <p>InGrip director: Exploratory survey and site visit to Madagascar in 2014: \$4,000 Salary contribution for project preparation in Europe: 30 days x \$400: \$12,000 Salary contribution while in Madagascar: 22 days x \$270: \$5,940 Liability insurance: \$2,500 Personal insurance costs: \$2,100 Contribution to satellite phone costs: \$1,000 Contribution to travel costs: \$1320.01 Safety equipment: \$76.87 100 color photocopies of maps: \$30.06</p> <p>InGrip shooting specialist: Gun and telescopic sight: £1400 Electronic caller: £150 Insurance: £400</p> <p>Island Endemics Foundation: \$880 Administrative overhead for participation of eradication specialist = 10% x \$8,800: \$880</p> <p>MFG: MFG Programme Director at 5% of \$4,250 for Feb 2019- June 2020 for \$2125 for July/Aug 2020 : \$3612.5+ \$212.50= \$3,825 MFG Programme Manager from July 2021 to June 2022 at 5%: \$67.49 x 11 months = \$742.39 MFG HR Manager time from Feb 2019 to June 2022 at 10%: \$54.97 per month x 29 months= \$1,594.13 MFG Research Director 20% contribution to salary for project development and applications for 1 year in 2018 = \$5,200 MFG Executive Director 20% contribution to salary for final report Aug 2022= \$966.67</p> <p>Ambatovy funded Asian Toad Control and Mitigation Programme:</p>

	<p>Development, design, and printing of 935 posters ultimately delivered in at least 106 Fokontanys across 3 regions: \$626.66</p> <p>Costs of ISSEDD workshop in Parc Ivoloina 14/02/2022 - 19/02/2022 (costs are for salaries of field team manager and 2 field team members for 6 days/48 work hours): \$277.19</p> <p>Costs of mission to delimit population along the RN5 between Tamatave and Foulpointe 28/09/2021 - 02/10/2021 (costs are for salaries of 2 field team members for 5 days/40 work hours): \$123.22</p> <p>Costs of mission to delimit population along the Canal des Pangalanes 28/09/21 - 02/10/21 (costs are for salaries of 2 field team members for 5 days/40 work hours): \$123.22</p> <p>Workshops with President Fokontany's and Reporting Network members 17-18 August 2021, includes development/printing of necessary materials, water, lunch for President Fokontanys: \$814.26</p> <p>Costs of maintaining free hotline for reporting instances of invasive species to MFG between September 2021 and June 2022: \$278.21</p> <p>TOTAL COUNTERPART COSTS = \$83,967.89</p>
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INFORMATION SHARING AND CEPF POLICY

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned and results. For more information about this project, you may contact the organization and/or individual listed below.

Madagascar Fauna and Flora Group: info@savethelemur.org