



Sustainable Development Verified Impact Standard

RIMBA RAYA BIODIVERSITY RESERVE PROJECT – MONITORING AND IMPLEMENTATION REPORT



Document Prepared by ecoPartners LLC

Contact: Paz Lozano, plozano@ecopartnersllc.com

Project Title	Rimba Raya Biodiversity Reserve
Version	v1.47
Date of Issue	20 August 2020
Project Location	Kalimantan (Island of Borneo), Indonesia
Project Proponent(s)	InfiniteEARTH

	<p>Contact: Todd Lemons</p> <p>Email: contact@infinite-earth.com</p> <p>Web: www.infinite-earth.com</p> <p>Unit 618 Tower B New Mandarin Plaza 14 Science Museum Rd TST Kowloon Hong Kong</p>
Assessor Contact	<p>AENOR Internacional, S.A.U.</p> <p>Genova, 6. 28004 MADRID, SPAIN</p> <p>Telephone: (+34) 915 294 961</p> <p>Email: medioambiente@aenor.com</p>
Project Lifetime	18 November 2008 – 17 November 2068; 60-year lifetime
Monitoring Period of this Report	18 November 2008 – 30 June 2019
History of SD VSta Status	In process of validation
Other Certification Programs	<p>Verified Carbon Standard</p> <p>Climate, Community & Biodiversity Standard</p> <p>Project ID: 674</p>
Expected Future Assessment Schedule	N/A

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1 SUMMARY OF SDG CONTRIBUTIONS

The project generates unique benefits in terms of the planet, people, and their prosperity. The Rimba Raya Biodiversity Reserve is located in the tropical peat swamp forest on the southern coast of Borneo in Central Kalimantan province, Indonesia. The location of the project allows for a unique contribution towards mitigating the effects of climate change because Indonesia ranks as one of the world's largest emitters of greenhouse gases despite being a non-industrialized nation whose economy accounts for less than 1% of global GDP (World Bank and IMF Global Rankings - 2008).

The construction of palm oil plantations destroys more than 25,000 square kilometers of forestland that is home to dozens of endangered species as well as impoverished communities who face looming economic forces that threaten to appropriate land that has been their home for generations. Facing this crisis, Indonesia ratified the Paris Agreement in October 2016 and the current government has pledged to cut emissions by 29% to 41% by 2030. As such, the Rimba Raya Biodiversity Reserve Project is in a unique position to address this deforestation and help meet Indonesia's climate goals.

The following table substantiates the project's SDG contributions for this monitoring period.

Table 1: Summary of SDG Contributions

Row number	Quantitative Project Contributions during Monitoring Period	Contributions during Project Lifetime	SDG Target	SDG Indicator	Net Impact on SDG Indicator	Section Reference	Claim, Asset or Label
1	73 people were employed directly by the project, with an average salary 300% higher than the national poverty line, and over 200% higher than the Seruyan minimum wage	73 people were employed directly by the project with an average salary 300% higher than the national poverty line, and over 200% higher than the Seruyan minimum wage	1.1	1.1.1 Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)	Implement activities to decrease	3.1 Impact #1, 3.2	Claim
2	1,794 households (61%) across 9 villages have access to solar power through the distribution of solar lanterns and the construction of 1 solar power plant	1,794 households (61%) across 9 villages have access to solar power through the distribution of solar lanterns and the construction of 1 solar power plant	1.4	1.4.1 Proportion of population living in households with access to basic services	Increase	3.1 Impact #2, 3.2	Claim
3	2,173 households (74%) across 9 villages in the project zone have improved access to clean water due to the project's provision of free water filtration systems at the household level and the installation of 1 community water purification system	2,173 households (74%) across 9 villages in the project zone have improved access to clean water due to the project's provision of free water filtration systems at the household level and the installation of 1 community water purification system	1.4	1.4.1 Proportion of population living in households with access to basic services	Increase	3.1 Impact #3, 3.2	Claim
4	Annual average of 1000 chickens and 668 units of shrimp paste produced and sold locally through enterprises established by the project's Community Enterprise Grants Program, providing access to protein sources within local communities that were previously unavailable	Annual average of 1000 chickens and 668 units of shrimp paste produced and sold locally through enterprises established by the project's Community Enterprise Grants Program, providing access to protein sources within local communities that were previously unavailable	2.0	2 Diversified sources of protein available for local communities	Increase	3.1 Impact #4, 3.2	Claim

5	Women-owned and operated chicken farms and shrimp paste enterprises established and supported by the project's Community Enterprise Grants Program, generated on average an additional 4 million IDR annually per owner's household and an additional 1 million IDR annually per owner's household, respectively	Women-owned and operated chicken farms and shrimp paste enterprises established and supported by the project's Community Enterprise Grants Program, generated on average an additional 4 million IDR annually per owner's household and an additional 1 million IDR annually per owner's household, respectively	2.3	2.3.2 Average income of small-scale food producers, by sex and indigenous status	Implement activities to increase	3.1 Impact #5, 3.2	Claim
6	316 people treated by floating clinic, across 7 different villages	316 people treated by floating clinic, across 7 different villages	3.8	3.8.1 Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population)	Increase	3.1 Impact #6, 3.2	Claim
7	201 women received access to medical services	201 women received access to medical services	3.8	3.8.1 Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity a	Increase	3.1 Impact #7, 3.2	Claim
8	168 reading glasses distributed by the project to community members in need	168 reading glasses distributed by the project to community members in need	3.8	3.8.1 Coverage of essential health services (defined as the average coverage of essential	Increase	3.1 Impact #8, 3.2	Claim

				services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity			
9	24 scholarships were distributed to students in 2018 for the completion of senior high school year	24 scholarships were distributed to students in 2018 for the completion of senior high school year	4.0	4 Number of scholarships distributed to students for completion of secondary education	Increase	3.1 Impact #9, 3.2	Claim
10	2 libraries established that increase access to books, internet, and educational opportunities	2 libraries established that increase access to books, internet, and educational opportunities	4.0	4 Number of facilities providing open access to educational materials and resources	Increase	3.1 Impact #10, 3.2	Claim
11	39% of community members and staff involved in RRC trainings	39% of community members and staff involved in RRC trainings	4.3	4.3 Participation rate of youth and adult community members in formal and non-formal education and training	Increase	3.1 Impact #11, 3.2	Claim
12	23% of all RRC employees are women	23% of all RRC employees are women	5.0	5 Proportion of RRC employees that are women	Increase	3.1 Impact #12, 3.2	Claim
13	12 women own and operate chicken farms and shrimp paste businesses through financial and technical support from the Community Enterprise Grants	12 women own and operate chicken farms and shrimp paste businesses through financial and technical support from the Community Enterprise Grants	5.5	5.5 Number of women entrepreneurs receiving financial and technical support from the project	Increase	3.1 Impact #13, 3.2	Claim

	Program	Program					
14	2,173 households (74%) across 9 villages in the project zone have improved access to clean water due to the project's provision of free water filtration systems at the household level and the installation of 1 community water purification system	2,173 households (74%) across 9 villages in the project zone have improved access to clean water due to the project's provision of free water filtration systems at the household level and the installation of 1 community water purification system	6.1	6.1.1 Proportion of population using safely managed drinking water services	Increase	3.1 Impact #14, 3.2	Claim
15	100% of stakeholder villages with installed water purification systems received training in water infrastructure maintenance	100% of stakeholder villages with installed water purification systems received training in water infrastructure maintenance	6.1	6.1.1 Proportion of population using safely managed drinking water services	Implemented activities to increase	3.1 Impact #19, 3.2	Claim
16	20,000 mangrove seeds planted	20,000 mangrove seeds planted	6.6	6.6.1 Change in the extent of water-related ecosystems over time	Implemented activities to increase	4.1 Impact #1, 4.2	Claim
17	504 hectares of peat swamp have been replanted since 2013	504 hectares of peat swamp have been replanted since 2013	6.6	6.6.1 Change in the extent of water-related ecosystems over time	Increase	4.1 Impact #2, 4.2	Claim
18	1,794 households (61%) across 9 villages have access to solar power through the distribution of solar lanterns and the construction of 1 solar power plant	1,794 households (61%) across 9 villages have access to solar power through the distribution of solar lanterns and the construction of 1 solar power plant	7.1	7.1.2 Proportion of population with primary reliance on clean fuels and technology	Increase	3.1 Impact #17, 3.2	Claim
19	Average of 60 seasonal or activity-based employees contracted annually by RRC from the local communities to assist with or support the implementation of various project activities or initiatives	Average of 60 seasonal or activity-based employees contracted annually by RRC from the local communities to assist with or support the implementation of various project activities or initiatives	8.0	8 Average number of individuals receiving seasonal or stipend-based employment opportunities annually	Increase	3.1 Impact #19, 3.2	Claim
20	12 women with ownership, management, and operational oversight of chicken farm and shrimp paste enterprises,	12 women with ownership, management, and operational oversight of chicken farm and shrimp paste enterprises,	8.3	8.3 Number of individuals participating in project-supported small-business	Increase	3.1 Impact #20, 3.2	Claim

	established through the financial and technical support of the project through the Community Enterprise Grants Program	established through the financial and technical support of the project through the Community Enterprise Grants Program		opportunities			
21	100% of stakeholder villages with installed water purification systems, and 100% of stakeholder villages with installed solar power infrastructure receive trainings on infrastructure maintenance	100% of stakeholder villages with installed water purification systems, and 100% of stakeholder villages with installed solar power infrastructure receive trainings on infrastructure maintenance	9.0	9 Development of infrastructure that facilitates increased sustainability, organizational capacity and inclusivity of communities	Implement activities to increase	3.1 Impact #21, 3.2	Claim
22	2 firetowers under construction for use in community firefighting activities, resulting in increased mitigation and adaptation capacity throughout the project zone	2 firetowers under construction for use in community firefighting activities, resulting in increased mitigation and adaptation capacity throughout the project zone	9.0	9 Development of infrastructure that facilitates increased sustainability, organizational capacity and inclusivity of communities	Increase	3.1 Impact #22, 3.2	Claim
23	2 community centers in development to provide communities with open-access infrastructure critical to community organizing, engagement, and governance	2 community centers in development to provide communities with open-access infrastructure critical to community organizing, engagement, and governance	9.0	9 Development of infrastructure that facilitates increased sustainability, organizational capacity and inclusivity of communities	Increase	3.1 Impact #23, 3.2	Claim
24	12 individuals receiving funding through the project's Community Enterprise Grants Program for the establishment and operation of small-scale enterprises including chicken farms and shrimp paste businesses	12 individuals receiving funding through the project's Community Enterprise Grants Program for the establishment and operation of small-scale enterprises including chicken farms and shrimp paste businesses	9.3	9.3 Number of individuals receiving project grants for the establishment and operation of small-scale enterprises	Increase	3.1 Impact #24, 3.2	Claim
25	2,173 households (74%) across 9 villages in the project zone have improved access to clean water due to the project's provision of free water filtration systems at the household level and the installation of 1 community water purification system	2,173 households (74%) across 9 villages in the project zone have improved access to clean water due to the project's provision of free water filtration systems at the household level and the installation of 1 community water purification system	10.0	10 Change in levels of inequality throughout the project zone, relative to the Central Kalimantan Province through increased proportion of households in project zone with access to clean water	Implement activities to decrease	3.1 Impact #25, 3.2	Claim

26	1,794 households (61%) across 9 villages have access to solar power through the distribution of solar lanterns and the construction of 1 solar power plant	1,794 households (61%) across 9 villages have access to solar power through the distribution of solar lanterns and the construction of 1 solar power plant	10.0	10 Change in levels of inequality throughout the project zone, relative to the Central Kalimantan Province through increased proportion of households in project zone with access to solar power	Implement activities to decrease	3.1 Impact #26, 3.2	Claim
27	2,173 households (74%) across 9 villages in the project zone have improved access to clean water due to the project's provision of free water filtration systems at the household level and the installation of 1 community water purification system	2,173 households (74%) across 9 villages in the project zone have improved access to clean water due to the project's provision of free water filtration systems at the household level and the installation of 1 community water purification system	11.1	11.1 Ensure access for all to adequate, safe, and affordable basic services	Increase	3.1 Impact #27, 3.2	Claim
28	1,794 households (61%) across 9 villages have access to solar power through the distribution of solar lanterns and the construction of 1 solar power plant	1,794 households (61%) across 9 villages have access to solar power through the distribution of solar lanterns and the construction of 1 solar power plant	11.1	11.1 Ensure access for all to adequate, safe, and affordable basic services	Increase	3.1 Impact #28, 3.2	Claim
29	Funded 100% of annual costs for design and implementation of TPNP's Annual Program Implementation Plan and Annual Work Program Plan within collaboration area	Funded 100% of annual costs for design and implementation of TPNP's Annual Program Implementation Plan and Annual Work Program Plan within collaboration area	11.4	11.4.1 Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private	Implement activities to increase	3.1 Impact #29, 3.2	Claim

				funding (donations in kind, private non-profit sector and sponsorship)			
30	Funded 100% OFI's ongoing activities in the project area and provided additional annual funding to support OFI programs including orangutan rescue, rehabilitation, release, forest protection, community programs, and research among others.	Funded 100% OFI's ongoing activities in the project area and provided additional annual funding to support OFI programs including orangutan rescue, rehabilitation, release, forest protection, community programs, and research among others.	11.4	11.4.1 Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private funding (donations in kind, private non-profit sector and sponsorship)	Implement activities to increase	3.1 Impact #30, 3.2	Claim
31	346 students receiving education from sustainability curriculum	346 students receiving education from sustainability curriculum	12.8	12.8.1 Extent to which (i) global citizenship education and (ii) education for sustainable development (including climate change education) are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment	Implement activities to increase	3.1 Impact #31, 3.2	Claim
32	504 hectares of peat swamp have been replanted since 2013	504 hectares of peat swamp have been replanted since 2013	13.0	13 Emissions removals through reforestation initiatives	Implement activities to increase	4.1 Impact #4, 4.2	Claim
33	36,505,191 tCO2e of net estimated emissions reductions	36,505,191 tCO2e of net estimated emissions reductions	13.0	13 Reduction in emissions as compared to the baseline	Increase	4.1 Impact #5, 4.2	SD Vista Labeled VCUs

34	2 firetowers under construction	2 firetowers under construction	13.1	13.1 Adoption and implementation of local disaster risk reduction strategies	Increase	3.1 Impact #32, 3.2	Claim
35	39% of community members and staff involved in sustainable development related trainings	39% of community members and staff involved in sustainable development related trainings	13.3	13.3 Proportion of community members involved in capacity-building to implement adaptation, mitigation and technology transfer, and development actions	Increase	3.1 Impact #33, 3.2	Claim
36	5.7 tonnes of garbage collected from the Seruyan River and its shores	5.7 tonnes of garbage collected from the Seruyan River and its shores	14.1	14.1.1 Index of coastal eutrophication and floating plastic debris density	Implement activities to decrease	4.1 Impact #6, 4.2	Claim
37	20,000 mangrove seeds planted	20,000 mangrove seeds planted	14.5	14.5.1 Coverage of protected areas in relation to marine areas	Implement activities to increase	4.1 Impact #7, 4.2	Claim
38	15,187 hectares of forest protected through community firefighting	15,187 hectares of forest protected through community firefighting	15.1	15.1.1 Forest area as a proportion of total land area	Implement activities to increase	4.1 Impact #8, 4.2	Claim

39	246,245 seedlings grown in nurseries for reforestation programs	246,245 seedlings grown in nurseries for reforestation programs	15.1	15.1.1 Forest area as a proportion of total land area	Implement activities to increase	4.1 Impact #9, 4.2	Claim
40	47,237 hectares of critical biodiversity habitat protected from conversion to palm oil	47,237 hectares of critical biodiversity habitat protected from conversion to palm oil	15.1	15.1.2 Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type	Implement activities to increase	4.1 Impact #10, 4.2	Claim
41	504 hectares of peat swamp have been replanted since 2013	504 hectares of peat swamp have been replanted since 2013	15.2	15.2 Total area of degraded land under reforestation activities	Increase	4.1 Impact #11, 4.2	Claim
42	47,237 hectares of land protected as habitat for IUCN Red List Species; a total of 54 species which are likely to be present, 17 of which are confirmed to be present near the project area listed as Critically Endangered or Endangered by the IUCN. An additional 40 species listed as Vulnerable by IUCN are likely present in the project area, 13 of which have been confirmed to be present in nearby areas.	47,237 hectares of land protected as habitat for IUCN Red List Species; a total of 54 species which are likely to be present, 17 of which are confirmed to be present near the project area listed as Critically Endangered or Endangered by the IUCN. An additional 40 species listed as Vulnerable by IUCN are likely present in the project area, 13 of which have been confirmed to be present in nearby areas.	15.5	15.5.1 Red List Index	Increase	4.1 Impact #12, 4.2	Claim

43	25 orangutans, listed as Endangered on the IUCN Red List, released from orangutan care facility into the project area's forests	25 orangutans, listed as Endangered on the IUCN Red List, released from orangutan care facility into the project area's forests	15.5	15.5.1 Red List Index	Increase	4.1 Impact #13, 4.2	Claim
44	2 community centers in development that will increase organizational and inclusivity capacity of communities	2 community centers in development that will increase organizational and inclusivity capacity of communities	16.0	16 Increase in access to community gathering and public spaces	Implement activities to increase	3.1 Impact #34, 3.2	Claim
45	100% of survey respondents were satisfied with the solar power plant, and roughly 80% of respondents rated the solar power as "very useful"	100% of survey respondents were satisfied with the solar power plant, and roughly 80% of respondents rated the solar power as "very useful"	16.6	16.6 Proportion of population satisfied with the basic services provided to them by the project	Increase	3.1 Impact #35, 3.2	Claim
46	Over \$26,000 of development donations received from global partners for sustainable initiatives from solar power program	Over \$26,000 of development donations received from global partners for sustainable initiatives from solar power program	17.0	17 Total amount of funding received from external/global partnerships to support project activities that impact and contribute to the SDGs	Increase	3.1 Impact #36, 3.2	Claim

2 PROJECT DESIGN

2.1 Project Objectives, Context and Long-term Viability

2.1.1 Summary of Project Sustainable Development Objective(s)

Between 1990 and 2005 Indonesia was losing just over 2% of its forest cover annually, a rate of nearly 1.9 million hectares a year. Today, that number has grown to more than 2,500,000 hectares annually – an area roughly the size of Belgium (FAO 2006). Extensive loss of national forest cover has been brought about through clearing of forest areas with fire to open up land for agricultural use, especially palm oil. From 2000-2005 Indonesia's forest loss represented the second highest annual loss of forest cover by area of any country in the world (after Brazil). In this same time period, Indonesia planted 1.6 million ha of oil palm, increasing production by 87% (FAO 2006). As part of this conversion process, post-fire clearing and draining of peat lands has rapidly pushed the country to be amongst the world's largest emitters of greenhouse gases (GHGs).

Today, Indonesia ranks as one of the largest emitter of greenhouse gas emissions, despite being a non-industrialized nation whose economy accounts for less than 1% of global GDP. The destruction of Indonesia's forests, the 3rd largest expanse of tropical rainforest in the world, combined with massive peat-based GHG emissions is fueling local and global environmental concerns. The task that lay ahead for Indonesia and those who are seeking new solutions to value its remaining forests is to create new economic opportunity from these environmental challenges by linking local and national forest resources with the global market for environmental services.

The Rimba Raya Biodiversity Reserve Project, an initiative by InfiniteEARTH, in partnership with OFI, World Education, and local, provincial and national government, aims to reduce Indonesia's emissions by preserving 91,215 hectares of tropical peat swamp forest. This area, rich in biodiversity including the endangered Bornean orangutan, was slated by the Provincial government to be converted into four palm oil estates. Nearly 100% of the project area is a wetland reserve, conservation of which protects critical resources, including some 64 billion liters of water flow per month and maintains a fish nursery area for the Seruyan River basin. Located on the southern coast of Borneo in the province of Central Kalimantan, the project is also designed to protect the integrity of the adjacent world-renowned Tanjung Puting National Park, by creating a physical buffer zone on the full extent of the ~90km eastern border of the park.

In the absence of the Rimba Raya Project, the project area would be converted to palm oil plantations by logging, burning to clear unused felled trees and remaining forest, and systematic draining of the peatland area. This would result in the release of both above and belowground carbon deposits. As a result, millions of tons of GHG emissions would be released into the atmosphere over the lifetime of the plantations. Increasingly scarce forest habitat supporting orangutans and more than 50 other endangered species would disappear completely. The 9 local forest communities along the eastern edge of the reserve would also face the threat of their land being appropriated by palm oil companies and critical ecological resources degraded.

InfiniteEARTH (IE), the principal project proponent, seeks to use the sale of carbon credits generated by the Voluntary Carbon Standard (VCS) through the Reducing Emissions from Deforestation and Degradation (REDD) Avoided Planned Deforestation (APD) mechanism to provide a sustainable revenue stream sufficient to curtail the clearing of Rimba Raya. The Rimba Raya Project will funnel substantial and sustainable financial resources for project area protection, local community development, and provincial government infrastructure and support in order to create a viable alternative to forest conversion in Indonesia.

The Rimba Raya Biodiversity Reserve Project recognizes that in order to launch and sustain a new mechanism for valuing forests on the ground, local community involvement is not just a sufficient feature of the project, it is a necessity. Local communities have been participating in and will continue to be integrally involved in the planning and development of various aspects of the project. Programs that Rimba Raya communities have expressed interest in helping to develop and implement, include: water filtration devices, distribution of clean stove technology, solar lighting, increased access to healthcare, early childhood development materials and tools including training in project and reserve management. The project will create local employment in protecting the Carbon Accounting Area, implementing an integrated fire management plan, and patrolling illegal logging and wildlife poaching. InfiniteEARTH aims to demonstrate that protecting endangered peat swamp forest is commercially, socially, and environmentally advantageous.

The InfiniteEARTH vision is to develop a project that harnesses the global carbon market in order to successfully compete with commercial agricultural interests in order to meet the sustainable development objectives below that would not otherwise be attainable. Rimba Raya peat-swamp forests and the threats it faces are not unique, rather representative of environmental degradation of increasingly scarce forest and peatland resources in Indonesia. With the Rimba Raya Project, InfiniteEARTH is determined to create an operational, voluntary market and community involvement model that can be replicated in peat swamp forest ecosystems across Indonesia for decades to come.

Rimba Raya Sustainable Development Objectives:

- Increase Agricultural productivity and incomes of small-scale food producers
- Undertake reforms to give women equal rights to economic resources
- Capacity-building support to developing countries in water- and sanitation-related activities and programs
- Promote the implementation of sustainable management of all types of forest, halt deforestation, restore degraded forest and substantially increase afforestation and reforestation globally
- Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity, and, by 2020, protect and prevent the extinction of threatened species
- Achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.
- Increase substantially the share of renewable energy in the global energy mix
- Ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, help maintain ecosystems, and strengthen capacity for

adaptation to climate change, extreme weather, drought, flooding, and other disasters and that progressively improve land and soil quality

- Support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services
- Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic, and public life.
- Ensure universal access to affordable, reliable, and modern energy services
- Ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.
- Ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy
- Protect carbon stores and increase carbon sequestration to decrease global GHG emissions

2.1.2 Description of the Project Activity

The primary project activity has been to avoid the conversion of tropical peat swamp forest to oil palm plantations. Operationally this primary activity is achieved through the implementation of the following core project activities.

1. RRC Employment. Findings from the socio-economic study conducted in the region at the start of the project indicated that the majority of the population in the project zone experiences high levels of deprivation as dictated by fluctuating income streams and the cost of food being the largest expenditure. These economic conditions and food security depend almost entirely on local natural resources – fisheries, water, fire wood and rice production – which can be inconsistently available or accessible at any given time. The creation of the Rimba Raya Reserve allows for the mitigation of some of these economic insecurities throughout the region by providing sustainable employment opportunities with equal opportunity for women and other marginalized groups throughout the project zone. This is because RRC adopts a livelihood diversification approach, including enterprise development, which requires the need of permanent and local human capital as well as the promotion of self-employment opportunities.

Additionally, to meet the operational goals of the multiple programs running in parallel in the project area, RRC will pursue socialization activities in coordination with village authorities to discuss and define a specific number of village members who are able to secure seasonal/activity based employment opportunities through the implementation of programs such as mangrove and peat swamp reforestation, nursery development, floating clinic, water filtration system, among others. Once approved, these villagers have the opportunity to learn technical, administrative and managerial skills

along with the permanent RRC's staff. This is an important learning process for the Human Resources division at RRC to assess performance as, ideally, the project aims to recruit the seasonal/activity-based employees to become permanent staff in accordance with the development of the project.

RRC will also implement an Anti-discrimination Recruitment Policy ensuring that the hiring and recruitment process does not discriminate based on gender and ensures that an adequate number of women and members of other underrepresented groups are encouraged to and have the opportunity to apply. More generally, the project aims to increase well-paying employment opportunities by hiring community members to work on the various project activities and monitoring.

This activity contributes to achieving SDG 1 – No Poverty, SDG 5 – Gender equality through the provision of decent employment and the prioritization of equal opportunities for employment of women, and SDG 8 through the diversification of income sources and employment opportunities throughout the project zone.

2. Water Filtration Systems. The project will provide water filtration systems to households throughout the project zone and village-level water purification systems. RRC will implement two strategies in order to increase access to clean water. The project aims to install water purifying systems in all surrounding villages capable of filtering 2000 liters of water in 4-5 hours. This will require training for each community on how to install and use the purifying system. In the short-term, the project will distribute water filters to all surrounding villages. The implementation of this activity will increase access to adequate quantities of clean drinking water throughout the project zone. Furthermore, village members, organized by working groups, run the operation of the water filtration systems with the technical guidance of RRC staff for organizational improvement and maintenance of the installed equipment.

This program will improve the livelihoods of all community members through the provision of basic services, reduce the resources expended on medical treatment, and reduce the overall levels of inequality in the project zone as compared to the province related to clean water access. Since the start of the project, the province of Central Kalimantan has reduced the percent of the population without access to clean drinking water from 65% in 2011¹ down to 43% in 2018², with the project contributing to this reduction in unequal access to drinking water at the province level.

This project activity directly contributes to SDG 1, SDG 6, SDG 10, and SDG 11 by ensuring that households and communities, and specifically vulnerable groups within the project zone have equitable access to clean water as a basic service. It is expected that the provision of water filters will also

¹ Patunru, A.A. (2015), Water and sanitation in Indonesia. *Asia and the Pacific Policy Studies*, 2: 234-244. doi:10.1002/app5.81

² Tin Afifah, Mariet Tetty Nuryetty, Cahyorini, Dede Anwar Musadad, Anne Schlottheuber, Nicole Bergen & Richard Johnston (2018) Subnational regional inequality in access to improved drinking water and sanitation in Indonesia: results from the 2015 Indonesian National Socioeconomic Survey (SUSENAS), *Global Health Action*, 11:sup1, 31-40, DOI: 10.1080/16549716.2018.1496972

indirectly contribute to SDG 3 – Good Health and Well-Being by reducing the incidences of illness due to contaminated drinking water.

3. Solar Power & Solar Lanterns. The project will purchase and provide Small Scale Solar Lighting to individual households, and plans to scale up the installation of village level solar power plants for village electrification. Providing solar power plants and lanterns will not only provide a form of sustainable electricity and increase access to a basic service, but it also has the potential to indirectly reduce air pollution and increase light hours for students and families to read further and complete activities for livelihoods diversification and basic domestic uses. The project will fund and implement the distribution of solar lanterns and installation of solar power plants throughout the project zone; however some funding from global partnerships may be used to further facilitate the purchase and installation of various solar power plants.

It is expected that this activity will provide positive and direct contributions to SDGs 1, 7, 10, 11, 16, and 17 through the provision of basic services to all households regardless of income, the increase in positive perception of Rimba Raya's presence throughout the project zone, and the increase in clean energy infrastructure throughout the area with support of global partners.

4. Floating Clinic. The project will fund the construction, outfitting, and deployment of a floating medical clinic, and will cover the salaries of nurses and medical staff in order to provide a more regular source of healthcare access to communities throughout the project zone. RRC will collaborate with the Seruyan government in order to select the medical staff for the boat, but will pay the salaries and living expenses for medical staff while the floating clinic is in operation.

In lieu of constructing community clinics, a floating clinic was chosen for its mobility and the resulting ability to deliver medical services up and down the Seruyan River, effectively servicing all of the communities in the Project Zone. InfiniteEARTH has chosen to use the Phinisi and its hand-crafted design in order to promote and preserve this traditional wooden shipbuilding industry. The project will construct the ship from sustainably harvested local hardwoods.

It is expected that this activity will directly contribute to net positive impacts for SDG 3 – Good Health and Well-being through the expansion of access to health services for local communities located around Rimba Raya Conservation on a regular basis.

5. Trainings. The project plans to implement training programs that include programs on nurseries, agroforestry plantations, community fire-fighting, chicken farms, shrimp paste production, environmental education, forest patrols, solar power electrification operation, water purification construction and operations training, hydroponic and polybag cultivation, scholarship processing, and biodiversity monitoring trainings. Trainings will generate positive impacts to community groups by enabling community members within the project area to build alternative skills and livelihood capabilities. In expanding worker skills sets and abilities, community members located within the project zone will be able to advance their socio-economic status, generate greater community capacity, and increase their climate resilience.

These trainings will be offered in order to support the inclusion of community members in project activities and decision making processes and to provide increased access to educational opportunities. The project aims to increase access to all village members but especially to women and other underrepresented groups, who have historically had little access to educational opportunities and employment.

It is expected that this activity will directly contribute to net positive impacts for SDG 4, SDG 9, and SDG 13, by increasing the availability of informal educational opportunities to a wide variety of people throughout the project zone, provide communities with skills for sustainable maintenance of critical infrastructure, and by increasing the resilience and capacity of individuals to respond to climate disasters and reduce their climate impacts.

6. Scholarships. The objective of this education scholarship program is to create opportunities for students whose families demonstrate financial need to continue their education to senior high school level or equivalent for a period of 3 years. The scholarships will assist with all aspects of attending school, such as educational materials and resources as well as transportation. By creating these scholarship opportunities the project aims to increase literacy and access to education in the villages surrounding the project area.

It is expected that this activity will directly lead to net positive impacts for SDG 4 through the increase in availability of higher education opportunities for children throughout the project zone.

7. Mangrove Reforestation & Peat Swamp Reforestation. RRC is committed to undertaking significant reforestation work inside and outside the Project Area. The RRC team will carry out restoration activities, planting seedlings of native dipterocarp and other appropriate tree species in areas with an insufficient inventory of young trees. The project goal is to reforest and restore degraded mangrove and peat swamp forests, enhance the benefits of ecosystems services, increase carbon stocks in the Project Area, and provide additional critical habitat for vulnerable and endangered species, thereby strengthening the physical buffer protecting TPNP. Reforestation of mangrove and peat swamp forests will also create employment and educational opportunities for local villages and may lead to increased local air and water quality.

It is expected that these activities will directly or indirectly contribute to net positive impacts for 4, 6, 8, 11, 13, 14, and 15. The reforestation activities will provide educational opportunities, strengthen community resilience and capacity to respond to climate change, contribute to gainful employment throughout the project zone, increase habitat for endangered species, and improve the integrity of water-related ecosystems. It is possible that negative impacts may occur as it relates to SDG 2, as there may be less available land for agriculture purposes available for communities, however, this scenario does not differ when compared to the destruction of this area for conversion to palm oil, and the project is working to mitigate possible food insecurity through trainings on food production, agroforestry, and the support of chicken farms and shrimp paste enterprises.

8. Community Enterprise Grants Program. RRC will implement a Community Enterprise Grants Program that provides funding to poor entrepreneurs and to others living in poverty that lack collateral, steady

employment, and a verifiable credit history, and therefore cannot meet even the most minimal qualifications to gain access to traditional credit. IE hopes to provide many individuals inside the Project Zone looking to build small-scale and sustainable businesses with access to grants, technical training, materials, licensing for small-scale industry food production (including the health quality assessments), certifications of sale, and upfront costs as a means to expand their livelihoods options, improve their socio-economic status, and get their independent, entrepreneurial businesses set up and off the ground.

Much of the program funding will go towards chicken farms and Zuper shrimp paste production businesses. Chicken farms and Zuper shrimp paste production provide an alternative form of revenue with a lower ecological impact than palm oil plantations and also add the benefit of food security within the surrounding communities, since chicken was not previously a readily available food product along the river and shrimp paste was solely produced in coastal communities with no technologies to make the paste shelf-stable. The project will allow for higher dispersal of the shrimp paste to inland communities due to increased shelf-life and more production locations and will make chicken accessible to communities along the river as well. These activities have also served to diversify sources of protein throughout the communities.

By implementing the Community Enterprise Grants Program and increasing the number of chicken farms and shrimp paste production by community members, RRC helps local households meet their food needs, utilizing land that is already under cultivation, and educates them about their political rights. This helps eliminate many of the incentives driving illegal logging and the unnecessary conversion of forest to agricultural land.

It is expected that the Community Enterprise Grants Program will directly and indirectly contribute to net positive impacts for SDGs 2, 5, 8, and 9, through the financial and technical support of small enterprises and encouragement of sustainable entrepreneurship, specifically for women throughout the project zone. It is possible that the involvement of individuals in the Community Enterprise Grants Program could have indirect negative consequences as it relates to SDG 8, by increasing their economic vulnerability to fluctuations in market supply and demand. However, this potential negative impact is being mitigated by the program as the individuals receiving the grants are not held financially responsible for paying them back if the program or business fails, unlike normal forms of credit. The programs themselves also are often not the primary source of household income and rather serve as supplementary household income, which reduces potential experienced economic instability.

There is also the potential that negative impacts could occur due to runoff from chicken farms that could contribute to water contamination; however the distribution of water filters and the development of water purifying systems can mitigate the negative impact that this could cause as it relates to human health and SDG 3. Additionally, the possible indirect negative impacts on SDG 12 or SDG 14 that could be generated due to the packaging used for the shrimp paste production or runoff from chicken farm pollution is also being mitigated through environmental education surrounding waste management as well as river clean-ups to minimize the amount of trash contributing to ocean pollution. Overall, these grants will create more sustainable revenue generating industries as well as opportunities for safe, empowering employment for local community members.

9. Reading Glasses. Many students and elderly members of the surrounding villages do not have access to the prescription glasses necessary to continue their daily routines, such as fishing, sewing, reading and writing, and farming, etc. The Rimba Raya project will fund and distribute reading glasses to community members and students with vision impairment. RRC coordinates the design and implementation of the program with local village governments in order to determine the number of recipients that are entitled to receiving benefits from the program. The target age group for glasses recipients is between 40 and 60 years old; however, it is expected that the project will expand the applicable age range based on the findings of the data collection. The examination of participant's eye condition is undertaken by local healthcare personnel and facilitated by RRC, and glasses are purchased by RRC for each recipient based on the results of the eye exams.

It is expected that this activity will generate positive net impacts for SDGs 3 and 4, by improving overall optometric health and increasing access to education for individuals with visual impairments.

10. Community Firefighting. In past years, largely due to the practices of palm oil plantations within the Project Zone, fires have periodically swept through the Project Area and the park during dry periods. The Rimba Raya project will create a fire response system, including training and equipping a fire brigade and developing a fire response plan for the reserve in conjunction with guard towers and stations. The community firefighting response includes education and actions related to fire prevention, pre-suppression, suppression and post-suppression. Fire prevention includes cooperative agreements, prevention infrastructures and fire information system. Fire pre-suppression covers pre-attack planning, fire management organization, standard operating procedures, task forces (crews, equipment and training), awareness campaigns and patrols. Fire suppression includes fire command system, mobilization, firefighting and rescue operations. Fire post-suppression covers identification of burnt areas, damage assessment and rehabilitation.

This program will also include trainings surrounding forest fire ecology, safety, equipment use, and environmental awareness. In addition, this activity is critical for the preservation of carbon stocks in the project area and protection of habitat for vulnerable and threatened species. It is expected that this activity will generate net positive impacts for SDGs 9, 13, and 15, through the generation of employment, the increase in infrastructure for local disaster mitigation strategies, and the maintenance of key habitat for biodiversity as well as carbon stocks.

11. Support for Tanjung Puting National Park. The TPNP Authority is heavily understaffed to protect over 400,000 ha of national park besieged by economic factors that would profit from its destruction. The mere presence of the Rimba Raya project along the park's exposed eastern flank will greatly reduce the resource and administrative burden for this staff.

Rimba Raya Biodiversity Reserve (RRBR) has established a collaboration agreement with the Tanjung Puting National Park Area, where RRC's responsibilities include assuming the full cost for the design and implementation of the Annual Program Implementation Plan (RPP) and Annual Work Program Plan (RKT) in the collaboration area. The scope encompasses providing funding activities in: i) institutional strengthening, ii) area protection, iii) preservation of flora and fauna, iv) ecosystem restoration, and v)

community development. Moreover, park personnel will have access to training and capacity-building opportunities, improved equipment for monitoring and communication, and the reserve's fire brigade.

OFI has been instrumental in funding and building a small network of guard posts along the perimeter of Tanjung Puting over the past two decades, with the bulk of these posts located along the park boundaries to the north and west. The Rimba Raya project will fund and implement the extension of this network of guard posts to create comprehensive observation and communication coverage along the eastern side of the park and project area. RRC will also work with OFI by providing financial and implementation support to create a biodiversity monitoring program and build release and feeding platforms in the project area.

It is expected that this activity will directly contribute to SDGs 11 and 15 through the project's financial and technical support of critical natural habitat and cultural/biodiversity heritage for Indonesia. The establishment of Rimba Raya will also add 14% more orangutan habitat directly adjacent to Tanjung Puting and create a buffer on the Western boundary of the park, reducing the possibility of encroachment by nearby palm oil concessions.

12 School Curriculum: Climate Change/Sustainability. Rimba Raya will work with Seruyan Environmental Agency, OFI and other stakeholders to develop a curriculum for High School students that covers the concepts of climate change, forest conservation, peat swamp restoration, biodiversity, local endemism, and species identification. Education surrounding the long and short-term ecological impacts of industrial palm oil plantations is important to help increase stakeholder support for Rimba Raya's mission of conservation and preservation of natural resources

Additionally, the seasoned technical experience from RRC staff such as the Community Development Manager, Biodiversity Manager and Unit Managers (North, Central, and South) can help provide students with first-hand information about the intersection between ecological conservation and socio-economic development by using first-hand examples from the Rimba Raya Biodiversity Reserve area. The school curriculum includes information about species of wild fauna and flora in the project area and the RRC's conservation efforts to maintain the structural and functional connectivity of the landscape against drivers of habitat destruction and biodiversity loss, including the accumulated impact of plastic pollution.

The project goal is to generate positive impacts for SDG 12 by increasing access to comprehensive environmental education and increasing stakeholder knowledge and support of the Reserve.

13. Seruyan River Cleanup. The communities in and around the project area depend on the Seruyan river and its tributaries for fisheries, aquaculture, and drinking water. The river is observed as a public place, so it is often used as a place to dispose of various types of garbage without recognizing the impacts of this disposal on the other communities living around the river, as well as on the riparian ecosystem. Rimba Raya Conservation together with village authorities, sub-district and district level governmental agencies, especially the Seruyan District Environmental Agency will implement a community-based waste management program with 13 villages (residing along the river from Ulak Batu Village to Sundai Undang) to clean approximately 118 kilometers of the Seruyan River. In average 1000

village members, governmental officers, 300 students from elementary, junior, and senior high school and other parties participate in the cleaning activities that are organized and funded by RRC. Through this campaign, RRC aims to generate positive impacts for SDG 14 by increasing environmental awareness, decreasing the amount of waste flowing into the ocean, increasing access to alternative waste management systems, and providing education surrounding the impacts of pollution on riparian ecosystems and the importance of these ecosystems to the health and livelihoods of all community members.

14. Establishment and Protection of the Rimba Raya Reserve. The primary project activity will be the establishment of the Rimba Raya Reserve, a privately-funded protected area comprised of peat swamp, lowland and kerangas forest along the eastern boundary of Tanjung Puting National Park. In order to effectively protect the reserve, RRC plans to construct a series of guard towers, a fire response plan and fire brigade, and a comprehensive monitoring system including illegal logging field patrols. These measures will help ensure the permanence of Project Area carbon stocks and biodiversity and the territorial integrity of TPNP. In addition, RRC will fund significant enrichment and rehabilitation work inside the Project Area, increasing carbon stocks and habitat available for biodiversity.

An essential element of the Rimba Raya project is the engagement of all stakeholders in the Project Zone in order to create a social buffer to the park and Project Area, thereby alleviating many of the external pressures that drive deforestation. The project proponents have created a process framework designed to disseminate information about project development and implementation, support community participation in all aspects of the project, and offer opportunities for capacity-building. This project aims to strike a balance between conserving critical ecological resources without marginalizing access to natural resources that the adjacent communities depend upon for their livelihoods.

To create an effective social buffer, project proponents believe that a comprehensive approach to socio-economic development must be undertaken with the objective of addressing the root causes of community-based deforestation – namely poverty, hunger, disease, lack of adequate shelter, and exclusion. To that end, a slate of programs has been developed based on data from an initial social survey in the Project Zone and with reference to the Sustainable Development Goals. It is expected that this activity will contribute positively to many SDGs, but specifically will generate impacts as it relates to SDGs 8, 13, and 15.

15. Nurseries. Rimba Raya Conservation will fund, establish, and provide training for the development of community-based nurseries. The nurseries will create community employment opportunities, training on agroforestry, propagation, and nursery management, aid in the reforestation of degraded areas within the project area and project zone by providing a local, sustainable source for native seedlings, and are expected to generate net positive impacts for SDGs 15 and 8.

16. Orangutan Care Facility. Tanjung Puting National Park is one of the largest remaining protected habitats for the endangered Borneo Orangutan. For over twenty years, Orangutan Foundation International has been rescuing orangutans orphaned by deforestation, rehabilitating them, and releasing them back into the wild, where they are monitored for research and education purposes. OFI has also managed Camp Leakey, a wild orangutan reserve and care facility inside the park, and its

conservation activities have extended to securing park borders and educating communities around the park.

RRC will provide a fixed amount of annual funding to OFI to support their ongoing activities; including new programs for reforestation of critical orangutan habitats and acquisition of viable habitat that does not currently meet REDD+ project requirements for additionality.

In addition, RRC will build three new orangutan release centers and six feeding platforms at strategic locations inside the Project Area. Working with RRC, OFI will be able to use the release centers to reintroduce as many as 200 orangutans from their Orangutan Care Center and Quarantine (OCCQ) Rehabilitation Center near Pangkalan Bun, back into the wild, utilizing the reserve as a staging ground for their migration into the park. The feeding platforms will function as an integral component of the reintroduction process. By progressively moving the locations of feeding platforms farther away from the release centers, RRC and OFI staff can monitor orangutan adaptation and exercise partial control over orangutan whereabouts for the first several months after release.

It is expected that this activity will generate net positive impacts for SDGs 11 and 15 through the financial support of organizations protecting key natural heritage of Indonesia as well as the direct support of activities to sustain and protect the endangered Bornean orangutan.

17. Community Centers & Village Libraries. RRC plans to build community centers and libraries in strategically all 9 villages inside the Project Zone. The community centers will offer facilities to improve the communication and interaction of leaders and village members to make decisions regarding village governance arrangement, including the supply of news, computer, generator, and network devices. The established village Libraries can serve as a gateway to the empowerment of children and adults through the development of social, learning and literacy skills. It is a space with books, computers and educational materials as the main means to access information, especially linked to the protection of the environment. Through the construction of these community centers and libraries, the project aims to increase access to education, both formal and informal. The community centers and libraries will support the aforementioned environmental education initiatives and create an accessible route for disseminating project information.

It is expected that the facilities themselves as well as the services that they offer will generate net positive impacts for SDGs 4, 8, 9, and 16. While there may be some potential negative impacts as it relates to SDG 16 through possible increases in inequality between communities with and without the centers in the early years of project implementation, the centers are being built strategically in areas with the highest accessibility, and plans are in place to construct centers in all villages over the project lifetime to allow for increased access.

18. Development Donations. The project aims to increase funding for projects that could significantly impact the livelihoods and wellbeing of communities in the project zone through the establishment of global partnerships. Donations and funds raised through established partnerships will be put toward amplifying the scope and reach of project activities that generate positive impacts for both planet and people. The objective of gathering donations and developing partnerships will be to promote the

development of activities that provide positive impacts for any SDGs and will contribute to the project's positive impact goals for SDG 17.

2.1.3 Implementation Schedule

Start Date	Finish Date	Milestone(s) in the Project's Development and Implementation	Activity Description / Relevancy	Status
20-Mar-08	21-Mar-08	Meeting with Orangutan Foundation Intl.	Determine synergy between orangutan conservation objectives and avoided deforestation	Complete
21-Mar-08	23-Mar-08	Visit potential project site area	Survey current condition of forest, assess immediate local threat from palm oil	Complete
21-Mar-08	25-Mar-08	Meet independently with three members of Commission 4 (development) of the Provincial legislature	Discuss new land-use plan that intends to convert Production Forests to Palm Oil	Complete
25-Mar-08	25-Mar-08	Meet with Provincial Governor	Determine possibility of his support given historical support of palm oil	Complete
8-Apr-08	8-Apr-08	Meet with Conservation Dept. of the Ministry of Forestry (PHKA)	Meet with "Head of Sub-Directorate" of the dept. in order to build support at lower levels within the agency.	Complete
9-Apr-08	9-Apr-08	Meet with Conservation Dept. of the Ministry of Forestry (PHKA)	Meet with the "Director of Area Conservation" and "Director General" to explicitly outline the project plan and ask for support	Complete
10-Apr-08	10-Apr-08	Deliver LOI to Ministry of Forestry	Lay out plan. Demonstrate common goals with OFI and define project area.	Complete
12-Apr-08	12-Apr-08	Meet with Minister of Forestry	Determine level of support for the project. Ask for advice on how to proceed	Complete
1-Jun-08	15-Aug-08	Commission "Desk Top Study"	Contract ForestCarbon to conduct a Desk Top Study of the Project area	Complete
15-Sep-08	1-Oct-08	Application for "Area verification"	Local branch of the National Forestry Dept determines current legal status of project area and issues letter of approval if no legal conflicts with title or proposed activities	Complete
15-Sep-08	18-Sep-08	Meet with Chiefs of the local villages	Determine level of support for the project. Discuss community concerns and needs	Complete

1-Oct-08	31-Dec-10	Establishment of offices	Administrative offices established in Jakarta and Pangkalanbun and field office established in Seruyan	Started
1-Oct-08	15-Mar-09	Project Design	Design & Development of the Rimba Raya REDD Project	Complete
15-Oct-08	18-Oct-08	Meet with Bupati of the Seruyan Regency	Determine level of support for the project. Discuss regency needs.	Complete
1-Nov-08	30-Nov-08	Bupati's Letter of Recommendation	Bupati of Seruyan Regency signs letter of approval and recommendation of the project	Complete
1-Nov-08	15-Jan-09	Biodiversity Monitoring	Commission Biodiversity Study of project area	Complete
1-Dec-08	1-Feb-09	Community Assessment	Commission Assessment for all communities in the project area to determine land tenure analysis, socio-economic status and needs, etc.	Complete
1-Dec-08	15-Mar-09	Governor's Letter of Recommendation	Governor of the Central Kalimantan province signs letter of approval and recommendation of the project	Complete
1-Dec-13	31-Mar-12	Orangutan Care Facility	Four Orangutan release stations will be built inside the project area.	Started
23-Dec-08	23-Dec-08	Village Heads Meeting	OFI sponsored meeting of Project Zone Village Heads to discuss conservation issues.	Complete
23-Dec-08	28-Dec-08	Daemeter Social Survey	Daemeter field team visits villages in the Project Zone to gather info and elicit opinions on proposed project activities	Complete
15-Feb-09	15-Jun-10	Agreement with carbon buyers	Contract for the purchase of REDD credits	Complete
1-Mar-09	15-Mar-09	Technical Proposal	Submit Technical proposal (Project Operational Plan) to Dept of Forestry for review	Complete
15-Apr-09	1-May-09	Technical Proposal	Present Technical proposal (Project Operational Plan) to Dept of Forestry and field questions & concerns.	Complete
1-May-09	1-Jun-10	Community Firefighting	Design and Implementation of comprehensive fire prevention and response plan	Complete
1-May-09	31-May-09	PDD Pre-validation	PDD submitted for pre-validation review	Complete
1-May-09	31-May-09	PDD Translation and Dissemination	PDD translated into Indonesian and distributed to all stakeholders for the CCB public comment period	Complete
1-Jun-09	30-Jun-09	Minister's Letter of Recommendation	Concession approved contingent on compliance with administrative steps	Complete

1-Jun-09	15-Jan-09	Monitoring Plan	Design & Development of Monitoring Plan	Complete
1-Jun-09	15-Jan-10	Daemeter Phase 2 Biodiversity and Community Assessments	CCB validation and verification	Complete
1-Jun-09	15-Jun-10	CCB Validation	PDD posted to CCB website and project validation commences, triggering public comment period	Complete
1-Jun-09	15-Jul-10	2nd Validation of project	Receive 1st validation of project receive 2nd validation	Complete
1-Jun-09	15-May-10	Public comment meetings	Meetings in Project Zone communities to describe project and elicit comments	Complete
1-Jun-09	17-Nov-68	Orangutan Care Facility	The coordinated release of 300 rehabilitated orangutans into the project area	Ongoing
1-Jan-10	15-Apr-10	Environmental Impact Assessment	Conduct Environmental & Social Impact Study per Dept of Forestry Regulations for final approval	Complete
1-Aug-09	31-May-10	Community consultations	Series of meetings with Project Zone communities to elaborate and prioritize social programs	Complete
1-May-10	31-May-10	Community consultations	Initial (1 of 2) Public Comment Period	Complete
1-Sep-10	30-Sep-10	Community consultations	Formal CCBA Public Comment Period	Complete
1-Sep-09	15-Jul-11	Minister's Decree granting IUPHHK Concession Rights	Final approval of the Rimba Raya rehabilitation and restoration concession license	Complete
1-Jan-10	15-Jun-11	Establishment of community committees	Establish system of community involvement in day-to-day operations, process and procedural rules for decision making, arbitration, etc. using existing socio/political/judicial structures (village counsels, tribunals)	Ongoing
15-May-10	Pending	IUPJL Business License	Application & Approval of Business License for trading Carbon Credits (under compliance scheme only)	Pending
15-Feb-10	15-Aug-10	VCS Verification	VCS verification	Complete
1-Jun-09	17-Nov-68	Community Forest Patrols	Build guard posts at strategic locations across the Reserve	Ongoing
1-Jan-13	17-Nov-68	Community Forest Patrols/RRC Employment	The community forest patrol involves the monitoring fire and illegal activities with participation of local villagers	Ongoing

1-Jun-10	31-Dec-15	Community Firefighting/RRC Employment	The community firefighting involves fire prevention and suppression activities with participation of local villagers	Ongoing
1-Jun-10	17-Nov-68	RRC Funding for Tanjung Puting National Park	Become an additional party to the existing and historical co-management agreement between OFI and TPNP	Ongoing
1-Jun-14	17-Nov-68	Orangutan Care Facility	Four supplemental Orangutan feeding platforms will be built inside the project area	Ongoing
1-Jun-11	17-Nov-68	Synergistic work with Widya Erti Indonesia	Joint effort with Widya Erti Indonesia to improve capacity building and social development with community activities in project zone	Ongoing
1-Jun-11	17-Nov-68	RRC Funding for Tanjung Puting National Park	Grants to fund TPNP conservation activities	Ongoing
1-Jun-11	17-Nov-68	Trainings	Bring in outside training personnel to adequately train and equip staff	Ongoing
1-Jun-11	17-Nov-68	Commencement of annual grants to OFI	Grants to fund OFI orangutan conservation and rehabilitation activities	Ongoing
1-Jun-11	17-Nov-68	Community Centers/Community Libraries	Create the enabling conditions to children, youth and adults to have access to education services and tools as well as spaces for organizational development	Ongoing
1-Dec-10	17-Nov-68	Water Filtration Systems	Development of community based clean filtration system	Started
15-Jun-09	17-Nov-68	Orangutan Care Facility	Design and implementation of orangutan monitoring study	Ongoing
15-Mar-09	2011	CCB Verification	Receive CCB Gold Validation	Complete
1-Jun-11	17-Nov-68	Community Centers	The construction of community centers aim to be utilized by the village government and members for social development, health and education activities	Ongoing
1-Jun-11	17-Nov-68	Trainings	Trainings developed based on program needs for both community members and local RRBR employees in aspects related but not limited to community development, biodiversity and climate monitoring components	Ongoing
1-Jun-09	17-Nov-68	Implementation of Monitoring Plan	Execution of Monitoring Plan	Started
15-Mar-09	29-Feb-20	Construction of fire towers	Build fire towers at strategic locations across the Reserve	Started

1-Jun-11	17-Nov-68	Community Enterprise Funding Grants	Provide micro-finance program to local communities for agriculture, aqua-culture and other enterprise endeavors that aim to creates a sustainable livelihood	Ongoing
1-Jun-12	17-Nov-68	Floating Clinic	Provide healthcare services to every community member along the Seruyan river	Ongoing
1-Jun-12	17-Nov-68	Tree Planting Initiative	Rehabilitation of degraded habitat via a multi-story mixed indigenous species natural forest & community based cash crop agro-forestry approach	Ongoing
2014	2017	Nursery	Replanting activities are required in the area, which requires educational materials for villagers to use to develop a nursery in some villages.	Ongoing
2016	17-Nov-68	Chicken Farm	A chicken farm is operational for egg and meat production within the village of Baung	Ongoing
2015	2017	Zuper Shrimp Paste	This is an effort to keep the price of shrimp paste stable in the area through a women's group in charge of packaging the paste for later use.	Ongoing
20-Jul-18	17-Nov-68	Solar Power	Access to solar power supply that fulfills the local needs for sustainable development in the villages	Ongoing
16-Jul-18	1-May-21	Education Scholarship for Seruyan Children	These merit-based scholarships award high school students from extremely low-income families in the project area	Ongoing
18-Oct-18	17-Nov-68	Mangrove Reforestation	Rehabilitation of mangrove areas that have been historical deforested or degraded	Ongoing
1-Mar-13	17-Nov-68	Peat Swamp Reforestation	Rehabilitation and enrichment of peat swamp areas that have been historical deforested or degraded	Ongoing
5-Mar-16	17-Nov-68	Solar Lanterns	Distribution of solar lanterns to houses in villages that do not yet have access to electricity	Ongoing
6-Sep-17	23-Oct-19	Reading Glasses	The distribution of eyeglasses is prioritized for members of the community, above 40 years old, whom economic conditions are very low	Ongoing
25-Jul-16	17-Nov-68	School Curriculum: Climate Change/Sustainable Development	Local content curriculum which adopts sustainable agricultural and conservation activities in the community	Ongoing

1-Feb-19	17-Nov-68	Biodiversity Monitoring	Installed 25 camera traps in the Project area to monitor wildlife and species distribution within the Rimba Raya Area to inform management and monitoring recommendations.	Ongoing
4-Feb-19	17-Nov-68	Seruyan River Cleanup	Remove waste from the Seruyan River and its shores and to implement community awareness to highlight the associated consequences to human health and the surrounded natural ecosystem.	Ongoing
18-Nov-08	17-Nov-68	Development Donations	The project has received over \$26,000 in donations toward its sustainable development initiatives, especially towards solar power and peat swamp reforestation efforts. The project will continue to bolster sustainable development partnerships, and plans to continue to raise funds and donations for development. The project goal is to raise \$50,000 in development donations by project end date.	Ongoing

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2.1.4 Project Proponent

Organization Name	InfiniteEARTH
Role in the Project	Project Proponent
Contact Person	Todd Lemons
Title	Founder and Non-Executive Chairman
Address	Unit 618 Tower B New Mandarin Plaza 14 Science Museum Rd TST Kowloon Hong Kong Hong Kong
Telephone	+1-704-223-0491
Email	contact@infinite-earth.com

2.1.5 Other Entities Involved in the Project

Organization Name	Orangutan Foundation International (OFI)
Role in the Project	Forest Protection, Ground Surveying
Contact Person	Dr. Biruté Galdikas
Title	President, Head of Field Operations
Address	Jalan Hasanuddin No. 10 Blk DKD Pangkalan Bun Kalimantan Tengah 74111 Indonesia
Telephone	+62 0532-24778
Email	

Organization Name	World Education Indonesia (World Education, WE, or WEI)
Role in the Project	Community Development, Education, Technical Advising and Consultation
Contact Person	Edy Hartono
Title	Country Manager - Indonesia
Address	World Education Jalan Tebet Dalam IV-D Number 5A Jakarta 12810 Indonesia
Telephone	+62-812-588-8021
Email	edwihartono@id.worlded.org

Organization Name	ecoPartners LLC
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Role in the Project	Remote Sensing, Land Use Change Analysis, VCS/CCB verification support services
Contact Person	Paz Lozano
Title	Manager of Developmental Services
Address	2930 Shattuck Ave Suite 305 Berkeley, California 94705
Telephone	+1 415 634 4650 extension 104
Email	plozano@ecopartnersllc.com

2.1.6 Project Location

The project is located in the Seruyan Regency, in the province of Central Kalimantan, Indonesia. The Project lies between 112°01'12" - 112°28'12" east longitude and 02°31'48" - 03°21'00" south latitude and is bounded by Tanjung Puting National Park in the west, the Java Sea in the south, the Seruyan River in the east, and a palm oil concession in the north. There have been no changes to the project location since validation. The project area can be seen within greater regional area in the image below (Figure 1).

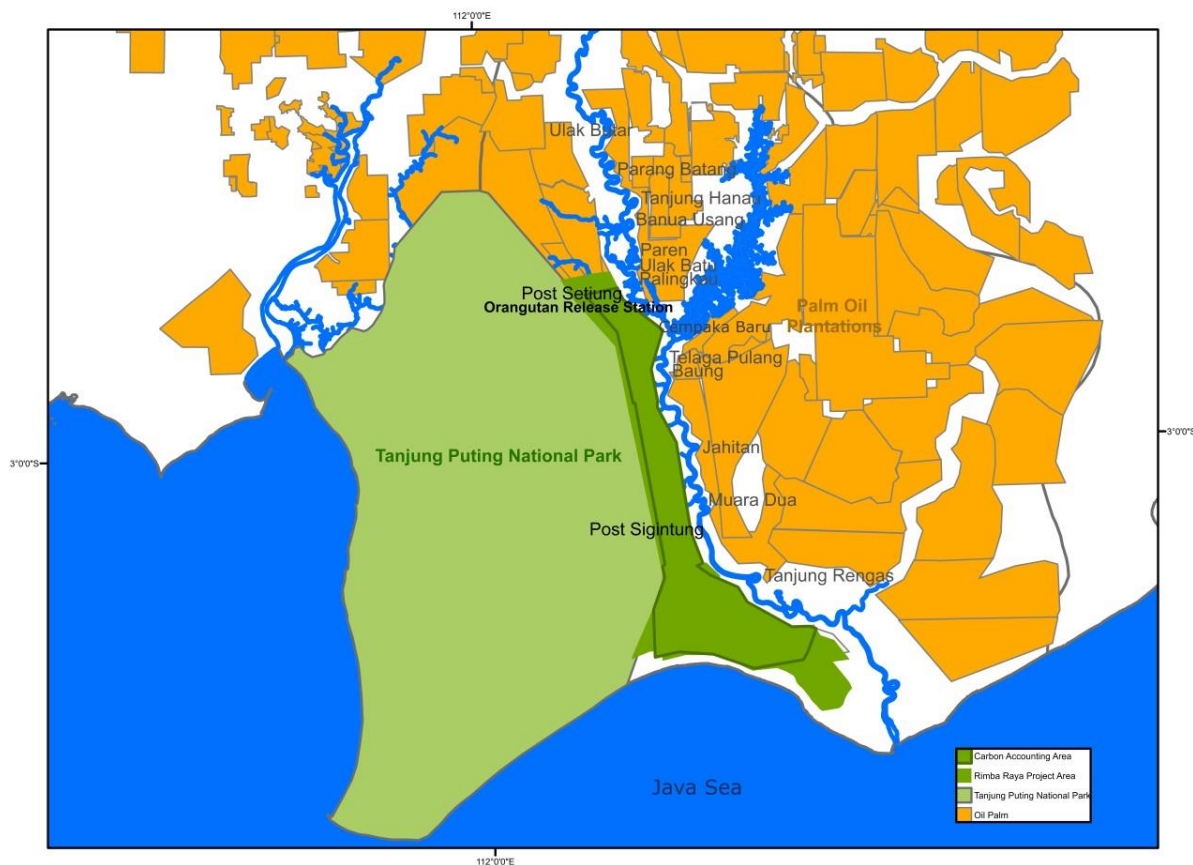


Figure 1: The Regional Location of the Rimba Raya Project

2.1.7 Project Description Deviations

There are no deviations from the project description this monitoring period.

2.1.8 Threats to the Project

The main identified risks to the project benefits are loss of carbon stocks due to ongoing pressure from oil palm expansion in the northern boundary and from fires lit by bordering communities to clear land and expand agriculture. These risks (whether natural or human-induced) would be expected to impact climate, community, and biodiversity benefits during the project lifetime. Fire has an impact on climate benefits through the release of carbon emissions from aboveground forest and belowground peat deposits, and can be expected to negatively impact biodiversity benefits through destruction of habitat. Fire can also negatively impact local communities as the smoke can cause respiratory illnesses and reduce the amount of overall GHG emissions reductions from the project, thereby reducing the project's funding.

Through the utilization of carbon funding, the Rimba Raya Biodiversity Reserve Project has expanded and enhanced the patrol and protective work being undertaken in the area since 1971 by OFI. This funding has increased the patrols to act as a deterrent and the physical presence through marking of

boundaries as well as the installation of posts and fire towers in order to efficiently monitor and respond to threats.

Forest patrols protect the forested area from illegal activities by way of community socialization. Communities around the project area are included in patrols, thus the communities are made aware that such illegal activities are forbidden. Patrol activities are conducted by monitoring vulnerable areas either on foot, by motorcycle or by cess (small boat for 2 – 4 persons).

In addition, funds are available for enterprise development to reduce the pressure on agriculture expansion and oil palm expansion with the ambition to maintain and enhance the climate, community and biodiversity benefit beyond the life of the project.

The project has continued to make the necessary investments in job creation and income generation activities for the local communities from the sale of credits in the voluntary market so that agricultural expansion is less sought after. Building capacity for alternative livelihoods and food security also come with the potential for indirect negative impacts, such as increased pollution from chicken farm runoff and waste production from the Zuper shrimp paste operation. While these small operations are predicted to have very little impact when compared to industrial operations, the project plans to mitigate these possible impacts by implementing various Seruyan river clean-up campaigns throughout the project lifetime.

Threats on people and their prosperity have also been identified in the project. The main threats arise from the implementation of the chicken farm program. The chicken farm program has the potential to cause an oversupply of eggs and meat, which could increase economic vulnerability for marginalized groups. There is the potential that the project will not be able to find a market for the increased production of meat and eggs. To combat this, the project proponent plans to work closely beside small scale farmers to gather input on programs. The project proponent also ensures that if these programs do not benefit farmers, these small scale farmers are not on hold for the expenses of such programs.

In addition, the chicken farm program also has the potential to increase pollution in nearby waterways, which will subsequently negatively impact community health. The project proponent plans to mitigate this risk by teaching sustainable and healthy farming practices, increasing access to healthcare, and increasing access to clean drinking water by distributing Water Filtration Systems.

Another foreseen threat to people and their prosperity stems from the Water Filtration Systems and solar power programs, which will increase communities' dependence on specific replacement parts. Those who do not have access to these parts may face a particular economic burden or will continue to have unclean drinking water or temporary loss of access to electricity. Because of this, this program may increase economic vulnerability in marginalized groups. The project proponent plans to combat this by working to equitably distribute parts, as well as increase access to certain parts within communities. This is also anticipated by ensuring procurement of equipment and devices that can be acquired within a buffer area of 80-130 km from unit offices and storage of sufficient inventory in case of market disruption scenarios. Likewise, Rimba Raya has established community-based management groups in villages, who are directly responsible to oversee and train the daily operation and

maintenance of the facilities (accompanied by the monitoring system). Additionally, communities will not be on hold for program expenses should the program fail.

Creating equal access to community centers and libraries in the surrounding communities is a goal for the project. However, as these resources are built, we may see a rise in unequal access and possibly discontent in communities without access to these resources. To mitigate this threat, the project plans to build community centers in most accessible areas, and plans to continue construction of centers in other villages to increase accessibility.

Unforeseen decision from governmental agencies at the national-level to suspend the license to operate the ecosystem restoration concession could be a threat to Rimba Raya project employment. As a result, the rates of household income at the village level would decrease, including reduced economic activity triggered by Rimba Raya Conservation operations and programs. To mitigate this issue, the rights over the land are legally bound for a period up to 60 years with the opportunity to renew for an additional 30 years. Likewise, Rimba Raya on a yearly basis is diligently complying and reporting based on national policies and regulations derived from forest protection and monitoring activities.

2.1.9 Benefit Permanence

In order to maintain and enhance the climate, community and biodiversity benefits beyond the project lifetime, the project proponent has developed a model that will protect the Rimba Raya Project area in perpetuity. In the creation of this Reserve, the carbon stocks and biodiversity of the project area are intended to remain intact beyond the lifetime of the project because the Reserve itself will be protected from conversion to palm oil plantation indefinitely. In this protection, critical habitat is safeguarded for numerous species and carbon stocks present in forest and peatland swamps remain intact.

The creation of the Reserve, as well as the revenue made from the sale of carbon credits, has and will continue to fund community-based action so that benefits are experienced during the lifetime of the project and that they positively impact future generations of the community. The creation of the Reserve allows for continued community benefits such as sustainable livelihood opportunities, equal opportunity employment for women and other marginalized groups, as well as sustainable food sourcing production. This is because the Reserve itself provides sustainable employment opportunities and agroforestry-based food production, among other community benefits that will remain permanently intact.

The financial benefits of selling carbon credits during the 30-year crediting period is aimed to create the enabling conditions within the Ecosystem Restoration Concession capable to perpetually change the dynamic between communities and the forest. The organization is committed to work towards a paradigm shift in the activities that implies that stakeholder villagers rethink and redefine their economic growth and wellbeing. As a result, the concession is constantly developing participatory and self-sustained operations and programs with the tenet that forest loss cannot be a component of long-term planned development.

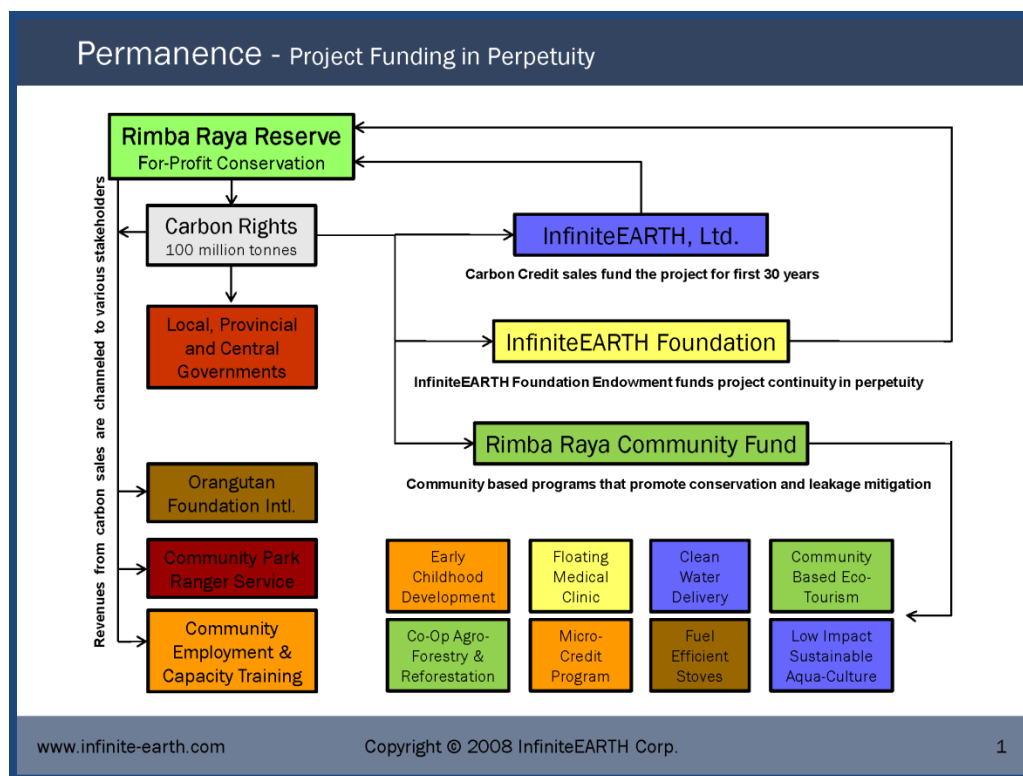


Figure 2: Outline of project permanence in terms of funding

2.2 Stakeholder Engagement

2.2.1 Stakeholder Consultation and Adaptive Management

Rimba Raya project field staff is stationed within communities in the North, Central, and Southern Units of the project area. These staff, specifically the Comdev (Community Development) staff, interacts with villagers throughout the project zone about the project activities on a regular basis. This serves as a fundamental level of stakeholder consultation, and provides opportunity for feedback from communities that can further facilitate adaptive management strategies.

In addition to regular interactions with Rimba Raya Staff, the project's socioeconomic study as well as other social surveys, participatory mapping exercises, collective village agreements, and other forms of dialogue with community stakeholders allowed for the inclusion of their feedback into project decision making. Various input was received during the monitoring period from stakeholders to report on things such as:

- Broken Water Filtration Systems units
- Dead batteries for solar lanterns
- Business revenue challenges for the chicken- egg producing program
- Business revenue challenges for the salty fish trial program

- Business revenue challenges for the handicraft program

The input from community members regarding these challenges will allow the project to update broken parts for Water Filtration Systems and lanterns as well as begin the process of designing new alternative working groups for communities that might be more economically viable.

2.2.2 Anti-Discrimination

The Rimba Raya Employment Policy does not discriminate based on gender and ensures that an adequate number of women and members of other underrepresented groups have the opportunity to apply. The employment policies for Rimba Raya along with the code of conduct policies are listed below:

- Pedoman Perilaku Bisnis Rimba Raya Conservation (BILINGUAL)
- Peluang kerja Rimba Raya Conservation (BILINGUAL)

2.2.3 Worker Training

Capacity building and worker training are critical elements in the operation of the Rimba Raya project's social service program. In order for these initiatives to succeed, members of the community need the skills necessary to effectively implement project activities. It has therefore been imperative for the social service provisions to not just create additional employment, but also provide training in the skills required to maximize these opportunities. Training and capacity building efforts have been designed in collaboration with the communities to ensure that they address current community concerns and prioritize community needs.

The Rimba Raya field staff and community staff consists of 52 people, many of which are from the 9 villages throughout the project zone. During this monitoring period, several local field staff were promoted to a higher level, including one employee who was promoted from Comdev Staff to Comdev Coordinator, another who was promoted from Field Staff member to become an Assistant Unit Manager.

Progress in worker training and capacity building that have been made during this monitoring period include:

Firefighting and prevention

- Patrols are routinely performed by firefighting staff, and firefighting staff have had refreshment trainings on fire suppression techniques and equipment in both 2018 and 2019.
- Drilled well training was held in 2017

Wildlife monitoring

- Three trainings were conducted for field teams on how to establish camera traps throughout the project area in February 2019

Throughout the course of the project, Rimba Raya has targeted a wide range of people in the communities with capacity building efforts in regard to the various needs of the project. Members of the communities from all groups, including and especially women, are encouraged to apply for available positions.

Since most or all of the communities have members under the employment of Rimba Raya, skills and capacities have become part of the fabric of the communities regardless of turnover. As all new employees need to be trained, the skills gained in each community have not been lost. Likewise, as demonstrated above, refresher courses have been provided routinely to reorient workers and/or update them on new methods.

2.2.4 Equal Work Opportunities

Job announcements for the local villages were distributed one month before the hiring of our permanent field crews began and a series of interviews were conducted in the villages where these crews were to be located. The project proponent advertised applicable employment opportunities by contacting village heads and by posting to announcement boards in village offices and mosques. Partner organizations OFI and WE also disseminated employment information.

The Rimba Raya Recruitment Policy ensured that members of project zone communities were given priority for all project-related positions. Priority was given to community members for positions which met with their skills. As training for most staff was budgeted, prior technical experience was not imperative for some positions. In many cases, specialized local knowledge and relationships were more important than technical knowledge. For each position, once a proper applicant base was acquired – including adequate representation from women and other minority groups – an interview process featuring verbal and written consultations with multiple IE staff commenced with the goal of selecting the best candidate for the position.

The project has used community members several times as field guides and has made an effort to train community members in the skills of measuring peat and using such technical tools. During this monitoring period, 52 field personnel were employed, along with 19 program staff.

The Rimba Raya Recruitment Policy does not discriminate based on gender and ensures that an adequate number of women and members of other underrepresented groups have the opportunity to apply (see Peluang kerja Rimba Raya Conservation (BILINGUAL).docx). The project aims to increase gender participation during the employment process since many of the women in the villages have greater long-term interest in how their communities develop and how opportunities for their family arise. Out of 52 direct employees of Rimba Raya, 17 are women.

In addition, significant progress was made during this monitoring period in terms of the project's Community Enterprise Funding Grants program. The Community Enterprise Funding Grants program provides additional budget, training and support for economic and entrepreneurial pursuits. This is especially important for women and other marginalized groups who did not apply or did not get hired for project-related jobs. Using the Community Enterprise Funding Grants program during this monitoring period, women's working groups were established and finances were secured for shrimp paste and chicken meat production.

2.2.5 Workers' Rights

The main body of Indonesian law governing the relations between workers and employers is UU No. 13/2003.

In addition, the following conventions of the International Labour Organization have been ratified by Indonesia:

- C81 – Labour Inspection Convention, 1947
- C87 – Freedom of Association and Protection of the Right to Organize Convention, 1948
- C98 – Right to Organize and Collective Bargaining Convention, 1949
- C100 – Equal Remuneration Convention, 1951
- C102 – Social Security (Minimum Standards) Convention, 1952
- C105 – Abolition of Forced Labour Convention, 1957
- C111 – Discrimination (Employment and Occupation) Convention, 1958
- C138 – Minimum Age Convention, 1973
- C169 – Indigenous and Tribal Peoples Convention, 1989
- C182 – Worst Forms of Child Labour Convention, 1999

Project proponents have maintained their strong commitment to inform all stakeholders of their rights with respect to the project. The Rimba Raya project has exceeded all local labor requirements and ensured that all workers were apprised of their rights.

Rimba Raya has company regulations that are required by law for any Indonesia company, foreign or national that has more than 10 employees. These company regulations are de facto regulated “labour agreements” that have been developed through negotiation between management and employees and have been ultimately approved by the Department of Manpower, which is the national regulatory department in charge of worker safety. They check to ensure they met all legal requirements.

During this monitoring period, the national government has passed two new laws relevant to worker’s rights for the project.

Government Regulation No. 45 on 30 June, 2015, on the Arrangements for Guaranteed Pensions Program

This law requires employers to register their employees with the Social Security Employment Agency and to participate in the Pension Guarantee Program. This requires the employer and employee to invest 2% and 1% of the employee’s monthly wages, respectively, into the pension fund.

Government Regulation No. 46 on 30 June, 2015, on the Implementation of Old-Age Savings Program

This law requires employers to register their employees into a retirement fund for each employee. This requires the employer and employee to invest 3.7% and 2% of the employee’s monthly wages into the retirement fund.

Both these laws have been followed for all employees in the Rimba Raya project starting on 7 September 2015.

Every employee has signed an employment agreement and has been provided a copy of the company regulations so they are aware of their rights, the policies of the company and can ask questions on any part they may have concerns with. Additionally, periodic reports have been provided to the Department of Manpower relating to employee relations, numbers of employees and locations in which any issues relating to labour laws can be identified and corrected. Salaries have been currently set at and will always exceed government mandated minimum wage for the areas that are being worked in.

2.2.6 Occupational Safety Assessment

Inherent risks arise for workers during project implementation and this monitoring period was no exception. While a majority of project activities do not entail extraordinary risk, there are some which include a degree of risk that is inherent to their nature.

The majority of worker related risks stem from the project activities of reserve patrol, fire response/brigade, and orangutan care. These risks may include violent confrontation with illegal loggers/poachers/palm oil personnel, a multitude of serious and non-serious injuries from patrolling/traveling within the reserve itself, fire burns, smoke inhalation, orangutan bites/marks/scratches and infection which may follow most of the above listed possibilities. Design and implementation of these project activities includes measures to minimize risks to worker safety.

During this monitoring period, risks were best minimized by informing workers about risk, properly training workers with best practices in order to minimize risks, and providing adequate equipment/tools. Verbally informing workers of these risks and how to minimize them is included as part of worker training, orientation conversations and training refreshment courses. To date, these conversations have been of an informal nature with basic discussions of safety when new employees were hired, during occasional refreshment courses, and prior to field activities that require specific focus on safety issues.

Additionally, SOPs have been composed for occupational safety and health, proper use of personal protective equipment (PPE), as well as emergency situation responses (see Worker Health and Safety SOP v1.1). This SOP has been made available to project employees in the local language. PPE have been provided for current staff and will continue to be provided and emphasized from the standpoint of safety in the field. First aid and medical kits have been purchased to carry into the field when conducting field operations and larger ones have been purchased for each of the permanent field offices.

2.2.7 Feedback and Grievance Redress Procedure

A formal grievance/conflict resolution process had been previously instituted and publicized (see SOP – Handling Conflicts and Grievances.docx). During this monitoring period, the process has continued to be publicized and practiced as originally intended. It has all elements needed in the process to make

sure it meets with standard conflict resolution protocols. However, some changes have been implemented that have handed additional responsibilities to local community members. For Example:

- Managed by a Third party – WEI has handed over the responsibility for receiving and mediating between the communities and Rimba Raya to local villagers that have been trained as community development staff. WEI trained these villagers with funding from Rimba Raya on how to be productive facilitators within the village and how they should be addressed. The 1st training was completed 9 to 11 June, 2015 in Telaga Pulang and the second was completed 28 January to 1 February, 2016 in Kual Pembuang. Additional information on this training can be found in the Comdev reports.
- Formal Process – World Education has informed all villages on the process of contacting them to submit a grievance or resolve a conflict. Posters have been posted publically. This process was completed in 2010, but the procedure has continued to be publicized by community development staff at a more local level.
- Publicized - All communities and stakeholders were informed of the 3rd party mediation of WE by 2010. Posters have been installed in all communities. Stakeholders were informed in face to face meetings by Rimba Raya personnel. Since 2013, work has been completed to inform villagers on the transfer of responsibility to local community development staff.

During community consultations, the project proponent explained the conflict resolution process and provided clear verbal and written guidance on how grievances can be raised to the proponent. More information can be found in SOP – Handling Conflicts and Grievances.docx. These issues are handled in the following manner:

1. Each community has been provided with a method and contact details for a third-party intermediary who represents the project proponent. Often times this was World Education.
2. When a grievance had been lodged, the third-party intermediary notified the project proponent and contacted stakeholders who lodged the grievance within one week after submission to discuss their concerns.
3. The stakeholder lodging the grievance met independently with a designated Indonesian representative of the third-party intermediary organization to identify concerns and discuss potential solutions. The intermediary documented the nature of the grievance, the actions being requested and the list of potential solutions that were discussed at the meeting with the stakeholder.
4. Where a significant grievance was lodged, the third-party intermediary then reported to the project proponent about the grievance being lodged.
5. The third-party intermediary and the project proponent met to decide on the appropriate course of action to address the issue.
6. The third-party intermediary then reported back to the stakeholder to present the solution.
7. This exchange of information continued until the dispute has been resolved.
8. The time frame should be no longer than 30 days.

9. Project proponents then prepared a report on the resolution process, which was made accessible to stakeholders.

In addition to this process, the Early Warning Early Responses (EWER) procedural community conflict resolution process was implemented by Rimba Raya during this monitoring period and works in the following way:

1. If field staff finds a potential problem, they are to notify the Unit Manager.
2. If field staff receives a complaint from a community member, they are to notify the Unit Manager.
3. The Unit Manager analyzes whether they can resolve it in the field themselves.
4. If the Unit Manager can handle the issue, they have the authority to resolve it, but still must report it to the General Manager.
5. If they can't handle the issue, the General Manager will respond to the issue.
6. If the General Manager needs additional support to resolve the issue, higher management is notified.
7. A legislative hearing will be completed if needed.

With the decentralization of responsibility from WEI staff to trained community members, villagers should be more likely to come forward with any complaints or grievances. Additionally, trained community development at a more local level will have a better understanding of these issues and be able to properly address them.

During this monitoring period, the project received the following types of comments and suggestions through its post-office box communication channels:

- 1) Proposal to work for RRC, such as becoming field staff or community development staff;
- 2) Increased community-based economic programs (more community members' involvement) including involving women in order to increase earnings;
- 3) Increasing socialization activities so that people are more familiar with the programs carried out by Rimba Raya Conservation;
- 4) Special requests to (improve) any programs that have been developed:
 - a. Electric power of the electrification program, in Dukuh Tampudau, needs to be improved/increased.
 - b. Develop a Sylvo-fishery program by using fish farming in the cage-system.
 - c. Improvement of the Seruyan Clean Program.

The project has received these comments and is working to consider them as part of adaptive management practices during future monitoring periods.

2.2.8 Stakeholder Access to Project Documentation

All project documentation is prepared and copied for distribution on the community information board in all of the villages within the Rimba Raya operational area as well as district and sub-district seats. Notices will be placed on the community information boards within all villages about the availability of any summary or important project documentation and announcements were included within local newspapers where Rimba Raya has a presence. World Education and Rimba Raya office locations have copies of this summary and all other key documentation to distribute to community members that make requests and efforts will be made by all staff when working with the community members on other components of the programs in order to share the information that these are available. All project summary reports and information will be made available in the local language.

2.2.9 Information to Stakeholders on Assessment Process

A summary of this report, auditor site visits, and the monitoring results has been prepared and copied for distribution on the community information board in all of the villages within the Rimba Raya operational area as well as district and sub-district seats. Notices have been placed on the community information boards within all villages about the availability of any summary or important project documentation and announcements were included within local newspapers where Rimba Raya has a presence. World Education and Rimba Raya office locations have copies of this summary and all other key documentation to distribute to community members that make requests, and efforts were made by all staff when working with the community members on other components of the programs in order to share the information that these were available. All summary information was made available in the local language.

2.3 Project Management

2.3.1 Avoidance of Corruption

The Rimba Raya project and organization has policies in place to inform management and employees about the avoidance of corruption, code of conduct, and business ethics. These policies are applied by all Rimba Raya project staff, including company management to ensure that the organization is run in accordance with all legal requirements and is held to the highest standards of operation.

The Rimba Raya policies covering the avoidance of corruption, conflict of interest, and code of business conduct are as listed:

- Kebijakan Anti Penyuapan dan Korupsi – Rimba Raya Conservation (BILINGUAL)
- Kebijakan Perihal Konflik Kepentingan – Rimba Raya Conservation (BILINGUAL)
- Pedoman Perilaku Bisnis Rimba Raya Conservation (BILINGUAL)

2.3.2 Recognition of Property Rights

Rimba Raya maintains the right of use for the project area. Rimba Raya's right of use to the project area is demonstrated in the 'working area map' presented below. The project has not required people to relocate and has preserved the local communities' right to access the project area for fishing, small

scale removal of trees and collection of non-timber forest products. The project has pledged to never re-locate any people that could conceivably encroach on the project area lands.

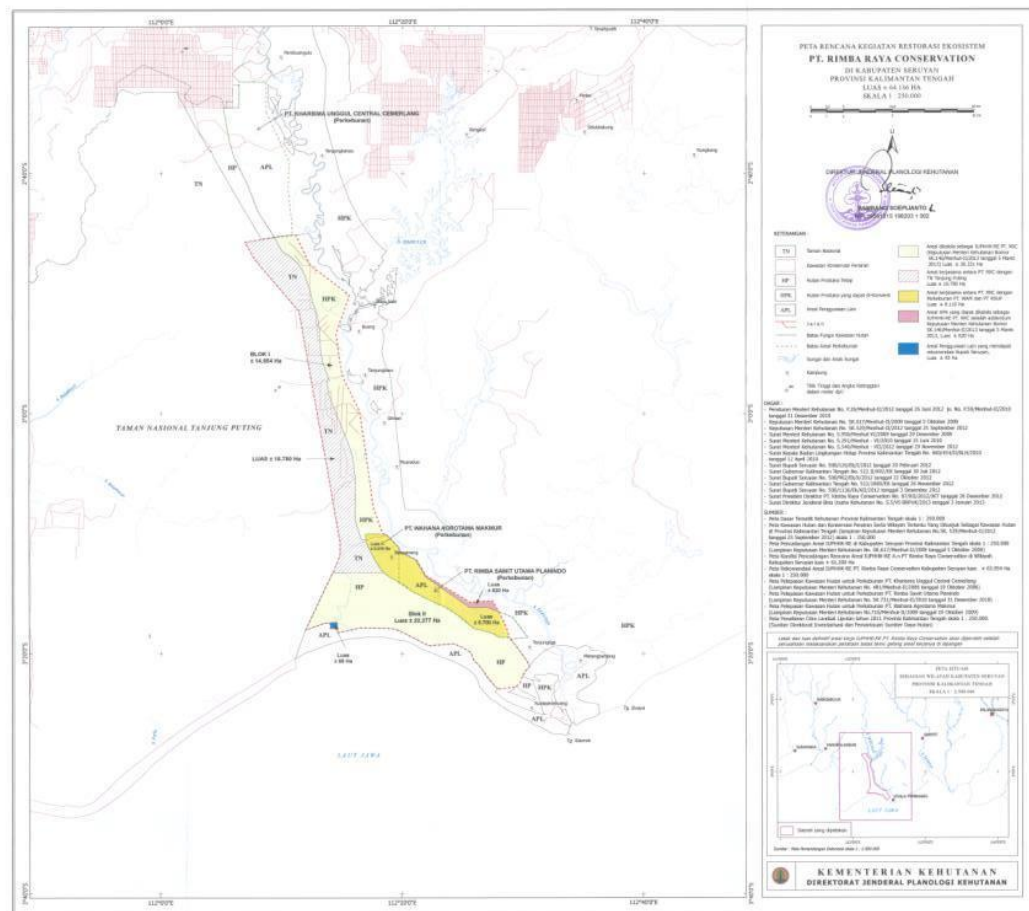


Figure 3: Original Agreements with PT Best for Conversion to Palm Oil

2.3.3 Free, Prior and Informed Consent

The project has not encroached uninvited on private, community or government property. The project has not required people to relocate and has maintained the local communities' right to access the area for fishing, small scale removal of trees and collection of forest products. The project has pledged to never re-locate any people that could conceivably encroach on the project area lands, although this has been actively prevented from occurring through patrols and education.

Because no parties' lands have been affected by the project, restitution or compensation has not needed to be allocated. There have been no changes in project design and implementation during this monitoring period which merit the need for the free, prior and informed consent of those whose property rights would be affected.

One area of concern relating to the above arose in the previous monitoring period through the discovery of people from Kuala Pembuang that bought land (not legally) along the government road running

through the southern part of the concession from the town to the port and established either temporary or permanent structures within the boundaries of the concession. Options for dealing with this issue were discussed with the local government and involved several possibilities including but not limited to; reimbursement by Rimba Raya for money paid for the land subject to a valid receipt, relocation to another area by local government with an equal area of land, allowing “occupied” residents to remain and employing them as security and monitoring, and relocation of the road so that it is outside of the concession boundaries, thus less attractive from a development perspective. This issue was resolved through the signing of a new a boundary document by the MoEF, District, Sub-District, and Provincial governments. Additionally, a procedure was developed in which local communities may make individual claims to the District Land Agency by submitting all evidence they have demonstrating their ownership, and this agency is in charge of resolving the matter. However, no claims with regards to land ownership have been made at this time.

Based on consultations with community representatives, project proponents were able to determine that, with few exceptions, village and communal property lies to the east of the Seruyan River, inside the project zone but outside the project area. To the extent that community or individual villager property lies within the project area, project proponents have offered the option of integrating the property into the project’s Community Agro-Forestry program or excising the land from the project area.

All project area land belongs to the Government of Indonesia, and the appropriate licenses and authorizations for management rights were put in place prior to commencement of major project activities and have been maintained during this monitoring period.

2.3.4 Restitution and/or Compensation for Affected Resources

Because no parties’ lands have been affected by the project, restitution or compensation has not needed to be allocated.

2.3.5 Property Rights Removal/Relocation of Property Rights Holders

Rimba Raya maintains the right of use for the project area. All project area land belongs to the Government of Indonesia, and the appropriate licenses and authorizations for management rights were put in place prior to commencement of major project activities. The project has not required people to relocate and has preserved the local communities’ right to access the project area for fishing, small scale removal of trees and collection of non-timber forest products. The project has pledged to never relocate any people that could conceivably encroach on the project area lands.

2.3.6 Identification of Illegal Activities

The illegal activities that may be conducted from time to time in the project area and could affect the project’s impacts include logging, deforestation and drainage by oil palm companies. In order to reduce these instances, the project proponent has implemented preventive measures and project activities aimed at identifying and mitigating the effects of illegal activities. The following subsections describe the activities and mitigation measures further.

Encroachment by Palm Oil Plantations

The principal illegal threat to the project's benefits has continued to be encroachment by the oil palm plantation inside the project zone, specifically to the north of the project area. The plantation has already expanded its operations beyond authorized boundaries, destroying valuable forest habitat. Moreover, the plantation's drainage canals threaten nearby peat deposits inside the project area.

Due to additionality requirements of REDD projects, the relationship between project developers and palm oil concessionaires was necessarily adversarial at project commencement. Upon project implementation, however, the relationship has become collaborative to avoid leakage. Project proponents have engaged the palm oil company with a series of steps designed to defuse threats. First, a guard post was built on the northern boundary, which serves as both a way to inhibit fire prevention and encroachment. Additionally, a pineapple plantation was built in this area between the project area and plantation, which serves as a fire break protection the forest. In exchange, project proponents have worked with plantation owners to identify and acquire viable non-peat land that has already been deforested for additional plantations.

Illegal Logging

There is a history of illegal logging inside the project area, and some indication that logging in the southern part of project area and extending into Tanjung Puting National Park has been ongoing. Social surveys of project zone communities indicate that this threat has not arisen from within the project zone, but rather from outside communities that have no legal or traditional stake in project area forests.

To mitigate this threat, project proponents have established a comprehensive network of guard towers and patrols to ensure the territorial integrity of the project area and prevent access by loggers. Progress made during this monitoring period concerning this project activity is described in greater detail in section 1 of this report.

Resource Use Surrounding Communities

Although minor in comparison to the threat posed by both legal and illegal palm oil plantations, the surrounding communities have placed some pressure on the physical integrity of the Rimba Raya Reserve. Anecdotal evidence suggests that community members have engaged in limited hunting and fishing inside the project area and have occasionally logged trees for timber.

Since 2003, World Education has been working with farmers around TPNP to achieve food security and alleviate pressure on proximate forest land. In 2005, these efforts expanded into the Seruyan, beginning with the introduction of rice block management techniques to greatly reduce the impact of crop pests in four villages on the east side of TPNP. Five Seruyan villages (Tanjung Hanao, Ulak Batu, Palingkao, Buang, Muara Dua) have been participating in a program intended to yield rice self-sufficiency and diversify crops by introducing agroforestry. Where viable, WE has sought to introduce community gardens and aquaculture. One such project is the development of a pineapple plantation near the northern border of the project. This project provides co-benefits in the form of additional food security and a cash crop for community members, as well as acting as a buffer against encroachment from palm oil plantations near the area.

Under the auspices of the Rimba Raya project, this program will be expanded and extended to every village in the Project zone. Beyond that, project proponents have designed a slate of socio-economic programs designed to address poverty issues at the root of this threat. These programs, described in the Community Section, will create a social buffer and reduce this threat to project benefits.

With the exception of the oil palm encroachment, project partner, OFI has had a long and successful track record of monitoring the project area and deterring would be loggers and threats of fire such as hunters and shifting agriculture before they can do significant damage to the ecosystem, and dealing with the offenders using non-violent methods. The project field team has worked with the same techniques and in many situations along-side OFI to continue this approach so that these instances have been reduced and have been effectively managed when they occurred.

The Project does not and has not benefited from any illegal activity.

2.3.7 Ongoing Conflicts or Disputes

There are no existing conflicts or disputes within the project area.

2.3.8 National and Local Laws and Regulations

In May of 2009 the government of Indonesia began formal regulation of REDD projects with the creation of a REDD project procedural document. This procedural regulation gives a legal allowance for voluntary carbon market project development. The project is following these REDD procedures in accordance with the following listed regulations:

1. Ministry of Forestry Regulation No. P.68/Menhut-I/2008 on the Implementation of Demonstration Activities on Reduction of Emissions from Deforestation and Degradation.
2. Ministry of Forestry Regulation No. P.30/Menhut-II/2009 on The Procedures for Reducing Emissions from Deforestation and Forest Degradation (REDD), dated 1 May, 2009.
3. Ministry of Forestry Regulation No. SK.159/Menhut-II/2004 on Ecosystem Restoration in Production Forest Areas.
4. Ministry of Forestry Regulation No. P.6/Menhut-II/2007 concerning work plan and annual work plan of utilization of timber forest products in natural forest and ecosystem restoration in natural forest within a production forest.
5. Ministry of Forestry Regulation No. P.61/Menhut-II/2008 concerning provisions and procedures for the application and granting of a business license for wood forest products in a forest ecosystem restoration of natural forests in a production forest.

The project has been and continues to be in compliance with all national and local laws and regulations of Indonesia that are relevant to the project activities, including the two new laws discussed above. During this monitoring period, the project has continued in carrying out this same compliance.

2.4 Grouped Projects

Project is not a grouped project.

3 BENEFITS FOR PEOPLE AND PROSPERITY

3.1 Impacts on Stakeholders

The following tables describe the impacts on stakeholders in this monitoring period.

Impact #1	73 people were employed directly by the project, with an average salary 300% higher than the national poverty line, and over 200% higher than the Seruyan minimum wage (SDG 1.1.1)
Type of Impact	Positive, Actual, Direct
Affected Stakeholder Group(s)	Villagers
Resulting Change in Well-being	Increased access to gainful employment and above-poverty salaries

Impact #2	1,794 households (61%) across 9 villages have access to solar power through the distribution of solar lanterns and the construction of 1 solar power plant (SDG 1.4.1)
Type of Impact	Positive, Actual, Direct
Affected Stakeholder Group(s)	Villagers
Resulting Change in Well-being	Improved access to affordable energy

Impact #3	2,173 households (74%) across 9 villages in the project zone have improved access to clean water due to the project's provision of free water filtration systems at the household level and the installation of 1 community water purification system (SDG 1.4.1)
Type of Impact	Positive, Actual, Direct
Affected Stakeholder Group(s)	Villagers
Resulting Change in Well-being	Increase in quality of life and health of individuals throughout project zone through access to clean water

Impact #4	Annual average of 1000 chickens and 668 units of shrimp paste produced and sold locally through enterprises established by the project's Community Enterprise Grants Program, providing access to protein sources within local communities that were previously unavailable (SDG 2)
Type of Impact	Positive, Predicted, Indirect
Affected Stakeholder Group(s)	Villagers, Farmers, and Women's groups
Resulting Change in Well-being	Decrease in malnutrition and increase in food security

Impact #5	Women-owned and operated chicken farms and shrimp paste enterprises established and supported by the project's Community Enterprise Grants Program, generated on average an additional 4 million IDR annually per owner's household and an additional 1 million IDR annually per owner's household, respectively (SDG 2.3.2)
Type of Impact	Positive, Predicted, Direct

Affected Stakeholder Group(s)	Farmers, and Women's groups
Resulting Change in Well-being	Diversified and inclusive income sources in community, empowerment of women and small-scale food producers

Impact #6	316 people treated by floating clinic, across 7 different villages (SDG 3.8.1)
Type of Impact	Positive, Actual, Direct
Affected Stakeholder Group(s)	Villagers
Resulting Change in Well-being	Increased access to essential health services (vaccines, medicine, etc.), improved community health

Impact #7	201 women received access to medical services (SDG 3.8.1)
Type of Impact	Positive, Actual, Direct
Affected Stakeholder Group(s)	Women's groups
Resulting Change in Well-being	Increased access to women's health care, improved women's health, empowerment of women

Impact #8	168 reading glasses distributed by the project to community members in need (SDG 3.8.1)
Type of Impact	Positive, Actual, Direct

Affected Stakeholder Group(s)	Villagers
Resulting Change in Well-being	Increased access to health services, improved quality of life for individuals with vision impairment

Impact #9	24 scholarships were distributed to students in 2018 for the completion of senior high school year (SDG 4)
Type of Impact	Positive, Actual, Direct
Affected Stakeholder Group(s)	Villagers
Resulting Change in Well-being	Increased access to higher education for students with financial need

Impact #10	2 libraries established that increase access to books, internet, and educational opportunities (SDG 4)
Type of Impact	Positive, Actual, Direct
Affected Stakeholder Group(s)	Villagers
Resulting Change in Well-being	Increase in formal and non-formal education opportunities for all age ranges within the community

Impact #11	39% of community members and staff involved in RRC trainings (SDG 4.3)
Type of Impact	Positive, Actual, Direct

Affected Stakeholder Group(s)	Villagers, formal village leaders, informal leaders, government offices
Resulting Change in Well-being	Increase in formal and non-formal education opportunities for adults and youth, increased capacity of individuals in project communities

Impact #12	23% of all RRC employees are women (SDG 5)
Type of Impact	Positive, Actual, Direct
Affected Stakeholder Group(s)	Women's groups
Resulting Change in Well-being	Reduced inequality for women in employment and leadership opportunities

Impact #13	12 women own and operate chicken farms and shrimp paste businesses through financial and technical support from the Community Enterprise Grants Program (SDG 5.5)
Type of Impact	Positive, Actual, Direct
Affected Stakeholder Group(s)	Farmers, and Women's groups
Resulting Change in Well-being	Increase in inclusive economic opportunities and economic empowerment of women

Impact #14	2,173 households (74%) across 9 villages in the project zone have improved access to clean water due to the project's provision of free water filtration systems at the household level and the installation of 1 community water purification system (SDG 6.1.1)
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Type of Impact	Positive, Actual, Direct
Affected Stakeholder Group(s)	Villagers
Resulting Change in Well-being	Increase in quality of life and health of individuals throughout project zone through access to clean water

Impact #15	99.5% of 2172 broken units reported were replaced or maintained (SDG 6.1.1)
Type of Impact	Negative, Predicted, Direct
Affected Stakeholder Group(s)	Villagers
Resulting Change in Well-being	Increased dependence on water filter parts, mitigated by: 2162 units of water filters were distributed to replace the broken units in other homes

Impact #16	100% of stakeholder villages with installed water purification systems received training in water infrastructure maintenance (SDG 6.1.1)
Type of Impact	Positive, Actual, Indirect
Affected Stakeholder Group(s)	Villagers
Resulting Change in Well-being	Increased capacity and knowledge within community

Impact #17	1,794 households (61%) across 9 villages have access to solar power through the distribution of solar lanterns and the construction of 1 solar power plant (SDG 7.1.2)
Type of Impact	Positive, Actual, Indirect
Affected Stakeholder Group(s)	Villagers
Resulting Change in Well-being	Improved access to affordable energy

Impact #18	100% of broken or malfunctioning solar power units replaced or maintained (SDG 7.1.2)
Type of Impact	Negative, Predicted, Direct
Affected Stakeholder Group(s)	Villagers
Resulting Change in Well-being	Increased dependence on solar panel parts, mitigated by: 166 units distributed to replace broken units

Impact #19	Average of 60 seasonal or activity-based employees contracted annually by RRC from the local communities to assist with or support the implementation of various project activities or initiatives (SDG 8)
Type of Impact	Positive, Actual, Direct
Affected Stakeholder Group(s)	Villagers
Resulting Change in Well-being	Increased access to diversified income sources

Impact #20	12 women with ownership, management, and operational oversight of chicken farm and shrimp paste enterprises, established through the financial and technical support of the project through the Community Enterprise Grants Program (SDG 8.3)
Type of Impact	Positive, Predicted, Direct
Affected Stakeholder Group(s)	Farmers, and Women's groups
Resulting Change in Well-being	Diversified and inclusive income sources in community

Impact #21	100% of stakeholder villages with installed water purification systems, and 100% of stakeholder villages with installed solar power infrastructure receive trainings on infrastructure maintenance (SDG 9)
Type of Impact	Positive, Predicted, Indirect
Affected Stakeholder Group(s)	Villagers
Resulting Change in Well-being	Increased capacity and knowledge within community

Impact #22	2 fire towers under construction for use in community firefighting activities, resulting in increased mitigation and adaptation capacity throughout the project zone (SDG 9)
Type of Impact	Positive, Predicted, Indirect
Affected Stakeholder Group(s)	Villagers

Resulting Change in Well-being	Increased community infrastructure for climate resilience and disaster mitigation
Impact #23	2 community centers in development to provide communities with open-access infrastructure critical to community organizing, engagement, and governance (SDG 9)
Type of Impact	Positive, Predicted, Direct
Affected Stakeholder Group(s)	Villagers, Government, Formal and Informal Leaders
Resulting Change in Well-being	Improved community infrastructure
Impact #24	12 individuals receiving funding through the project's Community Enterprise Grants Program for the establishment and operation of small-scale enterprises including chicken farms and shrimp paste businesses (SDG 9.3)
Type of Impact	Positive, Actual, Direct
Affected Stakeholder Group(s)	Villagers, Farmers, and Women's groups
Resulting Change in Well-being	Increased ability for diverse individuals to pursue community development projects and business development
Impact #25	2,173 households (74%) across 9 villages in the project zone have improved access to clean water due to the project's provision of free water filtration systems at the household level and the installation of 1 community water purification system (SDG 10)

Type of Impact	Positive, Actual, Indirect
Affected Stakeholder Group(s)	Villagers, formal villager leaders, informal leaders
Resulting Change in Well-being	Provision of clean water infrastructure in project zone communities to reduce the comparative inequality within the Central Kalimantan Province when it comes to access to basic services

Impact #26	1,794 households (61%) across 9 villages have access to solar power through the distribution of solar lanterns and the construction of 1 solar power plant (SDG 10)
Type of Impact	Positive, Actual, Indirect
Affected Stakeholder Group(s)	Villagers, formal villager leaders, informal leaders
Resulting Change in Well-being	Provision of solar power infrastructure in project zone communities to reduce the comparative inequality within the Central Kalimantan Province when it comes to access to basic services

Impact #27	2,173 households (74%) across 9 villages in the project zone have improved access to clean water due to the project's provision of free water filtration systems at the household level and the installation of 1 community water purification system (SDG 11.1)
Type of Impact	Positive, Actual, Indirect
Affected Stakeholder Group(s)	Villagers, formal villager leaders, informal leaders

Resulting Change in Well-being	Provision of clean water infrastructure in project zone communities to reduce the comparative inequality within the Central Kalimantan Province when it comes to access to basic services
Impact #28	1,794 households (61%) across 9 villages have access to solar power through the distribution of solar lanterns and the construction of 1 solar power plant (SDG 11.1)
Type of Impact	Positive, Actual, Indirect
Affected Stakeholder Group(s)	Villagers, formal villager leaders, informal leaders
Resulting Change in Well-being	Provision of solar power infrastructure in project zone communities to reduce the comparative inequality within the Central Kalimantan Province when it comes to access to basic services
Impact #29	Funded 100% of annual costs for design and implementation of TPNP's Annual Program Implementation Plan and Annual Work Program Plan within collaboration area (SDG 11.4.1)
Type of Impact	Positive, Predicted, Direct
Affected Stakeholder Group(s)	TPNP
Resulting Change in Well-being	Increased habitat, biodiversity, and natural area
Impact #30	Funded 100% OFI's ongoing activities in the project area and provided additional annual funding to support OFI programs including orangutan rescue, rehabilitation, release, forest protection, community programs, and research among others. (SDG 11.4.1)

Type of Impact	Positive, Actual, Direct
Affected Stakeholder Group(s)	OFI
Resulting Change in Well-being	Improved capacity of organizations to conserve and protect critical wildlife and habitat

Impact #31	346 students receiving education from sustainability curriculum (SDG 12.8.1)
Type of Impact	Positive, Actual, Direct
Affected Stakeholder Group(s)	Villagers, Farmers, and Women's groups, World Education, Formal and Informal Leaders
Resulting Change in Well-being	Increased awareness of sustainable consumption, waste reduction, and climate change

Impact #32	2 fire towers under construction (SDG 13.1)
Type of Impact	Positive, Actual, Indirect
Affected Stakeholder Group(s)	Villagers, Government, Formal and Informal Leaders
Resulting Change in Well-being	Increased community capacity to for climate resilience and disaster mitigation

Impact #33	39% of community members and staff involved in sustainable development related trainings (SDG 13.3)
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Type of Impact	Positive, Actual, Direct
Affected Stakeholder Group(s)	Villagers, Government, Formal and Informal Leaders
Resulting Change in Well-being	Strengthened community and individual capacity related to climate adaptation, mitigation, and development

Impact #34	2 community centers in development that will increase organizational and inclusivity capacity of communities (SDG 16)
Type of Impact	Positive, Predicted, Indirect
Affected Stakeholder Group(s)	Villagers, Farmers, and Women's groups, Government, Formal and Informal Leaders
Resulting Change in Well-being	Increased social cohesion and collaboration

Impact #35	100% of survey respondents were satisfied with the solar power plant, and roughly 80% of respondents rated the solar power as "very useful" (SDG 16.6)
Type of Impact	Positive, Predicted, Indirect
Affected Stakeholder Group(s)	Villagers, Farmers, and Women's groups
Resulting Change in Well-being	Increased approval of project's basic services within communities

Impact #36	Over \$26,000 of development donations received from global partners for sustainable initiatives from solar power program (SDG 17)
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Type of Impact	Positive, Actual, Direct
Affected Stakeholder Group(s)	Villagers, Farmers, and Women's groups, Government, Formal and Informal Leaders
Resulting Change in Well-being	Strengthened external partnerships and sustainable development assistance

3.2 Stakeholder Impact Monitoring

The Rimba Raya project is committed to the development of sustainable livelihoods for communities in the project zone. Monitoring activities used to measure the project's impact on community livelihoods and stakeholders have been designed to suit specific goals and interventions. A Theory of Change framework was used to guide this process.

The table below depicts the directly monitored impacts based upon the monitoring plan and framework developed in the Project Description Document and based upon the Theory of Change Matrix.

Project Activities	Affected Stakeholder Group(s)	Monitored Output	Monitored Output from Current Monitoring Period	+/-?	Corresponding SDG	SDG Target or Indicator (if applicable)
RRC Employment	Villagers	# of people gainfully employed	73 people were employed directly by the project, with an average salary 300% higher than the national poverty line, and over 200% higher than the Seruyan minimum wage	+	1.1	1.1.1 Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)
Solar Lanterns and Solar Power	Villagers	% households with solar power access	1,794 households (61%) across 9 villages have access to solar power through the distribution of solar lanterns and the construction of 1 solar power plant	+	1.4	1.4.1 Proportion of population living in households with access to basic services

Project Activities	Affected Stakeholder Group(s)	Monitored Output	Monitored Output from Current Monitoring Period	+/-?	Corresponding SDG	SDG Target or Indicator (if applicable)
Water Filtration Systems	Villagers	% households with water filter and Water Purifying system access	2,173 households (74%) across 9 villages in the project zone have improved access to clean water due to the project's provision of free water filtration systems at the household level and the installation of 1 community water purification system	+	1.4	1.4.1 Proportion of population living in households with access to basic services
Community Enterprise Grants Program	Villagers, Farmers, and Women's groups	Average annual # of units of protein sold or distributed locally	Annual average of 1000 chickens and 668 units of shrimp paste produced and sold locally through enterprises established by the project's Community Enterprise Grants Program, providing access to protein sources within local communities that were previously unavailable	+	2	2 Diversified sources of protein available for local communities

Project Activities	Affected Stakeholder Group(s)	Monitored Output	Monitored Output from Current Monitoring Period	+/-?	Corresponding SDG	SDG Target or Indicator (if applicable)
Community Enterprise Grants Program	Farmers, and Women's groups	Average annual income generated from sales by gender	Women-owned and operated chicken farms and shrimp paste enterprises established and supported by the project's Community Enterprise Grants Program, generated on average an additional 4 million IDR annually per owner's household and an additional 1 million IDR annually per owner's household, respectively	+	2.3	2.3.2 Average income of small-scale food producers, by sex and indigenous status
Floating Clinic	Villagers	# of individuals that received medical treatment	316 people treated by floating clinic, across 7 different villages	+	3.8	3.8.1 Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population)

Project Activities	Affected Stakeholder Group(s)	Monitored Output	Monitored Output from Current Monitoring Period	+/-?	Corresponding SDG	SDG Target or Indicator (if applicable)
Floating Clinic	Women's groups	# of women that received medical treatment	201 women received access to medical services	+	3.8	3.8.1 Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity a
Reading Glasses	Villagers	# of glasses distributed	168 reading glasses distributed by the project to community members in need	+	3.8	3.8.1 Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity
Scholarships	Villagers	# of scholarships distributed to students	24 scholarships were distributed to students in 2018 for the completion of senior high school year	+	4	4 Number of scholarships distributed to students for completion of secondary education
Community Libraries	Villagers	# of libraries constructed	2 libraries established that increase access to books, internet, and educational opportunities	+	4	4 Number of facilities providing open access to educational materials and resources

Project Activities	Affected Stakeholder Group(s)	Monitored Output	Monitored Output from Current Monitoring Period	+/-?	Corresponding SDG	SDG Target or Indicator (if applicable)
Trainings	Villagers, formal village leaders, informal leaders, government offices	% of community members involved in project trainings	39% of community members and staff involved in RRC trainings	+	4.3	4.3 Participation rate of youth and adult community members in formal and non-formal education and training
RRC Employment	Women's groups	proportion of RRC employees that are women	23% of all RRC employees are women	+	5	5 Proportion of RRC employees that are women
Community Enterprise Grants Program	Farmers, and Women's groups	# of women managing businesses	12 women own and operate chicken farms and shrimp paste businesses through financial and technical support from the Community Enterprise Grants Program	+	5.5	5.5 Number of women entrepreneurs receiving financial and technical support from the project
Water Filtration Systems	Villagers	% households with water filter and Water Purifying system access	2,173 households (74%) across 9 villages in the project zone have improved access to clean water due to the project's provision of free water filtration systems at the household level and the installation of 1 community water purification system	+	6.1	6.1.1 Proportion of population using safely managed drinking water services

Project Activities	Affected Stakeholder Group(s)	Monitored Output	Monitored Output from Current Monitoring Period	+/-?	Corresponding SDG	SDG Target or Indicator (if applicable)
Water Filtration Systems	Villagers	% of broken units replaced or maintained out of # of broken units reported	99.5% of 2172 broken units reported were replaced or maintained	-	6.1	6.1.1 Proportion of population using safely managed drinking water services
Water Filtration Systems	Villagers	% of individuals trained in maintenance	100% of stakeholder villages with installed water purification systems received training in water infrastructure maintenance	+	6.1	6.1.1 Proportion of population using safely managed drinking water services
Solar Lanterns and Solar Power	Villagers	% households with solar power access	1,794 households (61%) across 9 villages have access to solar power through the distribution of solar lanterns and the construction of 1 solar power plant	+	7.1	7.1.2 Proportion of population with primary reliance on clean fuels and technology
Solar Lanterns and Solar	Villagers	% of broken units reported replaced or maintained	100% of broken or malfunctioning solar power units replaced or maintained	-	7.1	7.1.2 Proportion of population with primary reliance on clean fuels and technology

Project Activities	Affected Stakeholder Group(s)	Monitored Output	Monitored Output from Current Monitoring Period	+/-?	Corresponding SDG	SDG Target or Indicator (if applicable)
RRC Employment	Villagers	Average annual # of individuals receiving seasonal or activity-based employment from RRC	Average of 60 seasonal or activity-based employees contracted annually by RRC from the local communities to assist with or support the implementation of various project activities or initiatives	+	8	8 Average number of individuals receiving seasonal or stipend-based employment opportunities annually
Community Enterprise Grants Program	Farmers, and Women's groups	# of individuals participating in project-supported entrepreneurial opportunities	12 women with ownership, management, and operational oversight of chicken farm and shrimp paste enterprises, established through the financial and technical support of the project through the Community Enterprise Grants Program	+	8.3	8.3 Number of individuals participating in project-supported small-business opportunities

Project Activities	Affected Stakeholder Group(s)	Monitored Output	Monitored Output from Current Monitoring Period	+/-?	Corresponding SDG	SDG Target or Indicator (if applicable)
Trainings	Villagers	% of people trained in maintenance of infrastructure	100% of stakeholder villages with installed water purification systems, and 100% of stakeholder villages with installed solar power infrastructure receive trainings on infrastructure maintenance	+	9	9 Development of infrastructure that facilitates increased sustainability, organizational capacity and inclusivity of communities
Community Firefighting	Villagers	# of fire towers constructed	2 firetowers under construction for use in community firefighting activities, resulting in increased mitigation and adaptation capacity throughout the project zone	+	9	9 Development of infrastructure that facilitates increased sustainability, organizational capacity and inclusivity of communities
Community Centers	Villagers, Government, Formal and Informal Leaders	# of centers constructed	2 community centers in development to provide communities with open-access infrastructure critical to community organizing, engagement, and governance	+	9	9 Development of infrastructure that facilitates increased sustainability, organizational capacity and inclusivity of communities

Project Activities	Affected Stakeholder Group(s)	Monitored Output	Monitored Output from Current Monitoring Period	+/-?	Corresponding SDG	SDG Target or Indicator (if applicable)
Grants Enterprise Community Program	Villagers, Farmers, and Women's groups	# of individuals involved in enterprises receiving funding	12 individuals receiving funding through the project's Community Enterprise Grants Program for the establishment and operation of small-scale enterprises including chicken farms and shrimp paste businesses	+	9.3	9.3 Number of individuals receiving project grants for the establishment and operation of small-scale enterprises
Water Filtration Systems	Villagers, formal villager leaders, informal leaders	% households with water filter and Water Purifying system access	2,173 households (74%) across 9 villages in the project zone have improved access to clean water due to the project's provision of free water filtration systems at the household level and the installation of 1 community water purification system	+	10	10 Change in levels of inequality throughout the project zone, relative to the Central Kalimantan Province through increased proportion of households in project zone with access to clean water
Solar Lanterns and Solar Power	Villagers, formal villager leaders, informal leaders	% households with solar power access	1,794 households (61%) across 9 villages have access to solar power through the distribution of solar lanterns and the construction of 1 solar power plant	+	10	10 Change in levels of inequality throughout the project zone, relative to the Central Kalimantan Province through increased proportion of households in project zone with access to solar power

Project Activities	Affected Stakeholder Group(s)	Monitored Output	Monitored Output from Current Monitoring Period	+/-?	Corresponding SDG	SDG Target or Indicator (if applicable)
Water Filtration Systems	Villagers, formal villager leaders, informal leaders	% households with water filter and Water Purifying system access	2,173 households (74%) across 9 villages in the project zone have improved access to clean water due to the project's provision of free water filtration systems at the household level and the installation of 1 community water purification system	+	11.1	11.1 Ensure access for all to adequate, safe, and affordable basic services
Solar Lanterns and Solar Power	Villagers, formal villager leaders, informal leaders	% households with solar power access	1,794 households (61%) across 9 villages have access to solar power through the distribution of solar lanterns and the construction of 1 solar power plant	+	11.1	11.1 Ensure access for all to adequate, safe, and affordable basic services

Project Activities	Affected Stakeholder Group(s)	Monitored Output	Monitored Output from Current Monitoring Period	+/-?	Corresponding SDG	SDG Target or Indicator (if applicable)
Support for Tanjung Puting National Park	TPNP	% of allocated funding used for activities	Funded 100% of annual costs for design and implementation of TPNP's Annual Program Implementation Plan and Annual Work Program Plan within collaboration area	+	11.4	11.4.1 Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private funding (donations in kind, private non-profit sector and sponsorship)
Orangutan Care Facility	OFI	% of allocated funding put toward activities	Funded 100% OFI's ongoing activities in the project area and provided additional annual funding to support OFI programs including orangutan rescue, rehabilitation, release, forest protection, community programs, and research among others.	+	11.4	11.4.1 Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private funding (donations in kind, private non-profit sector and sponsorship)

Project Activities	Affected Stakeholder Group(s)	Monitored Output	Monitored Output from Current Monitoring Period	+/-?	Corresponding SDG	SDG Target or Indicator (if applicable)
School Curriculum: Climate Change/Sustainable	Villagers, Farmers, and Women's groups, World Education, Formal and Informal Leaders	# of students learning curriculum	346 students receiving education from sustainability curriculum	+	12.8	12.8.1 Extent to which (i) global citizenship education and (ii) education for sustainable development (including climate change education) are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment
Community Firefighting	Villagers, Government, Formal and Informal Leaders	# of fire towers constructed	2 firetowers under construction	+	13.1	13.1 Adoption and implementation of local disaster risk reduction strategies
Trainings	Villagers, Government, Formal and Informal Leaders	% of community members involved in sustainability or climate resilience related trainings	39% of community members and staff involved in sustainable development related trainings	+	13.3	13.3 Proportion of community members involved in capacity-building to implement adaptation, mitigation and technology transfer, and development actions
Community Centers	Villagers, Farmers, and Women's groups, Government, Formal and Informal Leaders	# of centers constructed	2 community centers in development that will increase organizational and inclusivity capacity of communities	+	16	16 Increase in access to community gathering and public spaces

Project Activities	Affected Stakeholder Group(s)	Monitored Output	Monitored Output from Current Monitoring Period	+/-?	Corresponding SDG	SDG Target or Indicator (if applicable)
Solar Lanterns and Solar Power	Villagers, Farmers, and Women's groups	% of community satisfied with new infrastructure	100% of survey respondents were satisfied with the solar power plant, and roughly 80% of respondents rated the solar power as "very useful"	+	16.6	16.6 Proportion of population satisfied with the basic services provided to them by the project
Development Donations	Villagers, Farmers, and Women's groups, Government, Formal and Informal Leaders	\$ of funding from donors and partnerships received	Over \$26,000 of development donations received from global partners for sustainable initiatives from solar power program	+	17	17 Total amount of funding received from external/global partnerships to support project activities that impact and contribute to the SDGs

3.3 Net Positive Stakeholder Well-being Impacts

As demonstrated in the table below, the impacts that the project both directly and indirectly contributed to were overwhelmingly positive. The net comparison between the baseline and the project's actual impacts for each SDG is described in this section below.

Project Activities	Impacts	Stakeholders Impacted	Magnitude of Impact
RRC Employment	Increase in the number of people gainfully employed	Villagers	Positive
Solar Lanterns and Solar Power	Increase in number of households with energy access	Villagers	Positive
Water Filtration Systems	Increase in % of households in project zone with access to clean water	Villagers	Positive
Community Enterprise Grants Program	Increased access to diversified sources of protein	Villagers, Farmers, and Women's groups	Positive

Community Enterprise Grants Program	Increased contribution of women-run businesses to their annual household income	Farmers, and Women's groups	Positive
Floating Clinic	Increase in the number of individuals with access to essential healthcare services	Villagers	Positive
Floating Clinic	Increase in the number of women with access to basic healthcare services	Women's groups	Positive
Reading Glasses	Increase number of people receiving optometric care	Villagers	Positive
Community Enterprise Grants Program	Reduced health of community members living near Chicken farms due to impacts on water quality	Villagers, formal village leaders, informal leaders, farmers	Negative
Scholarships	Increase in # of students receiving scholarships in project zone	Villagers	Positive
Community Libraries	Increased access to books, internet, and educational opportunities	Villagers	Positive
Trainings	Increase in the number of individuals with improved capacity due to diversified educational opportunities	Villagers, formal village leaders, informal leaders, government offices	Positive
RRC Employment	Increase in the proportion of women gainfully employed	Women's groups	Positive
Community Enterprise Grants Program	Increased economic/business opportunity for women	Farmers, and Women's groups	Positive
Water Filtration Systems	Increase in % of households in project zone with access to clean water	Villagers	Positive
Water Filtration Systems	Temporary loss in access to clean water	Villagers	Negative
Water Filtration Systems	Increased resilience of communities and critical infrastructure	Villagers	Positive
Solar Lanterns and Solar Power	Increase in number of households with energy access	Villagers	Positive
Solar Lanterns and Solar Power	Number of individuals with temporary loss of energy access	Villagers	Negative

Establishment and protection of Rimba Raya Reserve	Decreased area devoted to palm oil plantations as compared to the baseline	Villagers, Oil Palm companies	Negative
RRC Employment	Increase in the number of annual seasonal or activity-based employment opportunities	Villagers	Positive
Community Enterprise Grants Program	Increase in entrepreneurship throughout the project zone	Farmers, and Women's groups	Positive
Trainings	Number of individuals with increased resilience and use of critical infrastructure	Villagers	Positive
Community Firefighting	Increased access to infrastructure for disaster mitigation and climate resilience	Villagers	Positive
Community Centers	Increase in number of community centers throughout project zone to provide communities with open-access infrastructure critical to community organizing, engagement, and governance	Villagers, Government, Formal and Informal Leaders	Positive
Community Enterprise Grants Program	Increased funding for inclusive entrepreneurial opportunities within the project zone	Villagers, Farmers, and Women's groups	Positive
Water Filtration Systems	Increase in the proportion of households with free access to clean water	Villagers, formal villager leaders, informal leaders	Positive
Solar Lanterns and Solar Power	Increase in the proportion of households with free and improved energy access	Villagers, formal villager leaders, informal leaders	Positive
Water Filtration Systems	Increase in the proportion of households with free access to clean water	Villagers, formal villager leaders, informal leaders	Positive
Solar Lanterns and Solar Power	Increase in the proportion of households with free and improved energy access	Villagers, formal villager leaders, informal leaders	Positive
Support for Tanjung Puting National Park	Increased funding for park capacity/operations	TPNP	Positive
Orangutan Care Facility	Increase in funding for conservation and protection of natural heritage	OFI	Positive
School Curriculum: Climate Change/Sustainable Development	Increased number of individuals with sustainability education	Villagers, Farmers, and Women's groups, World Education, Formal and Informal Leaders	Positive

Community Firefighting	Increased number of individuals with capacity in disaster mitigation and climate resilience	Villagers, Government, Formal and Informal Leaders	Positive
Trainings	Increase in number of individuals with strengthened capacity and climate resilience	Villagers, Government, Formal and Informal Leaders	Positive
Community Centers	Increase in organizational capacity of communities and inclusivity	Villagers, Farmers, and Women's groups, Government, Formal and Informal Leaders	Positive
Solar Lanterns and Solar Power	Increase in % of population with favorable view of institutions and services	Villagers, Farmers, and Women's groups	Positive
Development Donations	Increase in \$ value of development donations received from international governments for sustainable initiatives	Villagers, Farmers, and Women's groups, Government, Formal and Informal Leaders	Positive

As defined in the validated Project Description Documentation, the approach to demonstrate net community benefits in the Project area is based on an assessment of 'with' and 'without' project scenarios in relation to project goals. As compared to the baseline scenario, the project activities are providing a net positive impact on stakeholders. A comparison of the baseline and project scenarios and descriptions of how project activities are aligned with various sustainable development goals are summarized below:

SDGs 1, 2, 8, and 10: Eradicate extreme poverty and hunger, promote inclusive employment and reduce inequality

Palm oil is Indonesia's second most successful agricultural product, after rice, and the largest agricultural export. It provides a means of income and economic development to a large number Indonesia's rural poor. With over half of Indonesia's population living in rural areas—of which over 20 percent live below the poverty line—the palm oil industry provides an incomparable means of poverty alleviation (Budidarsono, et al, 2013; Norwana; et al 2011). It allows small landholders to participate in the cash economy and often results in improvements to local infrastructure and greater access to services. In some areas, the cultivation of oil palm has replaced traditional practices, often due to the higher income potential of palm oil (Budidarsono, et al , 2013; Norwana; et al 2011).

However, in some cases, land has been developed by oil palm plantations without consultation or compensation of the indigenous people occupying the land which has led to conflict, including conflict in Indonesia. Additionally, some Indonesian oil palm plantations are dependent on imported labor or undocumented immigrants, which have raised concerns about the working conditions and social impacts of these practices.

Plantations systematically destroy the rainforest land that the local people depend on; communities are continuously finding themselves with no choice but to become plantation workers. Faced with poor and degrading working conditions, they often earn barely enough income to survive and support their families. Instead of being able to sustain themselves, indigenous communities become reliant on the success of the palm oil industry for their income and survival, leaving these community members incredibly vulnerable to the world market price of palm oil which they have no control over. In the baseline scenario, the majority of community members - would continue to depend on the palm oil industry for employment.

This would likely be the case for the two identified community groups in the project – those communities living in the project zone and those which travel to the project zone for logging, hunting or for collecting non-timber forest products. Prior to project creation, the area in which the project area exists was part of several concessions that were planned to become a palm oil plantation. Therefore, it can likely be assumed that in the absence of the project, the land would have been converted to palm oil plantation. Community members living in the project zone would likely become employed by the palm oil company and lose their local forest. This would leave them vulnerable to the associated palm oil industry issues, as described above. This would include vulnerability to poverty and hunger. Likewise, community groups that did not live in the project zone but traveled to the project zone for logging, hunting and non-timber forest products (NTFP) would either see the same fate as community groups living within the project zone (employed by the palm oil industry, losing their local forest and being susceptible to poverty and/or hunger) or they would travel elsewhere to access forestland for logging, hunting and NTFP and likely, to access employment as well. With the absence of these plantations, it is likely that fewer people from outside the area moved into the project zone for employment. However, those that have traveled to the project zone are eligible for employment in the Rimba Raya Project. Additionally, while they are discouraged from conducting illegal deforestation in order to secure the project area, they are permitted small harvests like all other community members, and are granted the same access rights for hunting and NTFP.

The Rimba Raya project has generated employment throughout the project zone and will work to improve the livelihoods of the villagers near the project boundary. Additionally, activities like Farmer Field Schools, establishment of 2 nurseries, 2 chicken farms, shrimp paste, and various project-supported plantations will help to provide a varied diet to local villagers, increase food security, and provide various forms of income generation to villagers.

SDG 3 and 4: Improve health and well-being for all, and ensure inclusive and equitable education

Whilst the development of lands into palm oil plantations can be associated with increases in other services, an Indonesian study has found that access to elementary schools and medical facilities was similar for communities who rely on oil palm compared to communities who don't. However, distances to schools, hospitals and other medical services were significantly higher in communities relying on oil palm industry compared to those who don't. This was likely because the communities which rely on oil palm are more remote, public/government facility developments are not prioritized in these remote areas (Budidarsono, et al , 2013), and the oil palm plantations are not filling the gap in providing these services.

Furthermore, community members working in oil palm plantations are often women and children. The jobs associated with harmful health practices, such as the spraying of pesticides, is often performed by women and children as it seen as less laborious³. This contributes to worsening health conditions for women and children due to employment by palm oil.

Within the communities themselves, especially rural communities, medical and health services are often difficult to access. Palm oil plantations, which often dominate the existence of many rural communities, often do not provide these services to their employees. Therefore, community members themselves lack the resources for disease treatment. This would likely affect both community groups – those living inside the area that would be the project zone and those which travel to the area that would be the project zone. Notably, with community groups that travel to the area that would be the project zone, distance would be increased and thus access to health care and medical assistance would be increasingly difficult to reach.

Under the baseline scenario, these conditions for women and children of both community groups (groups which live in the project zone and groups which travel to the project zone) would likely continue. As such, access to education would be limited and health conditions for women and children would continue to decline.

Under the project scenario, Rimba Raya has established 2 village libraries to increase community access to books. The project has also supported 24 students in the Seruyan area from less fortunate families with good academic scores to continue their education to senior high school level or equivalent for a period of 3 years. The Rimba Raya project promoted a program to provide 67 community members with reading glasses to ensure accessibility to information to those with vision impairment. With regards to health, the project has supported the development of a floating clinic that has provided health services to 316 people living in villages along the river that do not have any nearby medical care facilities. Finally, the expansion of health services throughout the region along with an increased availability of vegetables and essential nutrients has helped reduce infant mortality rates and improve the overall health of villagers in the project zone.

SDG 5: Promote gender equality and empower women

In the baseline scenario, work in oil palm plantations is hard for both men and women, though quite different. It is quite frequent that women help their husbands in the plantations to meet demanding production quotas, usually doing unpaid work. In the baseline scenario, this would likely be applicable for both community groups – those which lived in the area which would be the project zone and those which traveled to the area which would be the project zone.

In the case that women work on a hired basis, they often receive lower wages than men. This discrimination is set on the grounds that their work is easier than that of men. According to an article by

³ See

http://www.ran.org/campaigns/rainforest_agribusiness/resources/fact_sheets/hostile_harvest_us_agribusinesses_and_labor_rights_abuses/

Rainforest Action Network, women are often assigned tasks that seem less onerous, but which are actually more dangerous and physically demanding than that of their male counterparts. In Indonesia, women are often designated to spray pesticides because it is less physically taxing than other plantation work. Unfortunately, they are rarely given proper protective gear like gloves and masks and thus are susceptible to becoming sick or injured by the dangerous chemicals present in most industrial pesticides and insecticides.

Outside of working in the palm oil plantation, women fulfill other roles. In the baseline scenario women have to take care of the children, prepare food and collect firewood and water, (which are often made farther due to destruction of the forest by the oil palm plantations). While women are rarely the heads of households, they often are responsible for the management of a functioning household. If working, such as at a plantation or helping out in the processing of fish products if their husbands are fishermen, when they return home, women have to prepare food for their families, often with pesticide residue still on their skin and clothes⁴. Women, whether working or not, are still responsible for the management of the home and children, with little time, resources, or opportunity for other ventures, private activities, or means of personal investment/empowerment. For working women that are part of community groups that travel to the area where the project area would be, even more time would be spent traveling to and from the plantations.

Under the baseline scenario, these conditions for women (in both identified community groups) would likely persist as palm oil plantations dominate the employment opportunities and there would likely be not many, if any, opportunities to become financially independent or programs which promote the empowerment of women.

The Rimba Raya project has focused on providing women with alternative forms of employment, including participating in 2 chicken farms, shrimp paste production, handicraft production, and the ability to be part of the field staff team. The opportunity to have independent forms of employment has not only benefited women and their families economically, but also has empowered them to be able to have more ownership and agency over their lives and their family's well-being.

SDG 6, 7, 9, 11: Provide access to clean water, sustainable energy, resilient infrastructure, and resilient human settlements

Palm oil development does result in increases in some infrastructure and services within communities that work in plantations, however, palm oil companies are not required to bring development services or infrastructure to neighboring communities.

The Rimba Raya project has provided solar lanterns and solar power to communities that lack electrification throughout the project zone. Additionally, 300 household Water Filtration Systems and 1 large-scale community water filtration system have been distributed to or installed in communities

⁴ See http://www.ran.org/campaigns/rainforest_agribusiness/resources/fact_sheets/hostile_harvest_us_agribusinesses_and_labor_rights_abuses/

during this monitoring period. The project area also has a high risk of fire, and the project has trained community fire-fighters, provided equipment, and drilled wells for fighting fires to ensure that communities are more resilient against fires.

SDG 12: Ensuring sustainable consumption and production

The development of palm oil plantations is associated with various serious environmental challenges including:

- Biodiversity loss, including loss of rare and endangered species
- Pollution of soil, air, and water
- Soil erosion
- Greenhouse gas (GHG) emissions and climate change
- Loss of key ecosystem services

Deforestation also has significant social implications and can be very damaging for the communities that depend upon these forests for their livelihoods (Colchester, 2011). Serious conflicts can arise when palm oil companies disregard the rights of local communities. Social impacts of palm oil production can include:

- Land grabs
- Loss of livelihoods
- Social conflict
- Forced migration
- Loss of social/cultural identity associated with land
- Loss of access to non-timber forest products

Under the baseline scenario, continued deforestation would be expected. Correspondingly, the detrimental social and environmental effects which accompany deforestation would also persist for both community groups – those living in the area that would be the project zone and those which travel to the area that would be the project zone for hunting, logging, and collection of NTFP. Specifically, both groups would need to travel elsewhere, likely farther in distance, in order to access forests for their needs.

Additionally, villages within the project zone, with or without palm oil development, face huge barriers to implementing waste management practices. With no formal waste management systems, the community members are forced to live surrounded by the garbage that is generated, and often resort to using the river as a waste-disposal mechanism. This not only creates serious health problems for communities, but the pollution of the river impacts the organisms living in it, of which many are essential sustenance for villagers.

The project has focused on developing initiatives and forms of employment that are based on the sustainable use of resources. Additionally, the project has raised awareness about and reduced the amount of waste generated within communities as well as various facilities for waste disposal.

SDG 16, 17: Promote inclusive and transparent sustainable development, and strengthen external partnerships

In the baseline scenario, the area which would comprise the project area would likely be converted to palm oil plantation. Although Indonesia has been working towards creating a sustainable palm oil industry, the country as a whole has a long way to go. As of 2017, only 12% of the approximately 11.9 million hectares of palm oil plantations are Indonesia Sustainable Palm Oil (ISPO) certified⁵. ISPO standards require producers to fulfill certain environmental as well as labor and social standards; implementation of these standards helps to create a global partnership for development as it promotes international principles centered on sustainable social development for impoverished communities worldwide. Because ISPO corresponds with UNDP (United Nations Development Program), which created the Sustainable Development Goals, the baseline scenario would only meet the goal of developing a global partnership for development if the plantation met the ISPO requirements.

If this were the case, community groups (both those in the area that would be the project zone and those who travel to the area that would be project zone) may receive fair social and labor treatment if employed by the plantation. In doing so, this would contribute to Indonesia's progress in developing a global partnership for development.

However, because sustainable palm oil production is currently a very small percentage of the country's output, it is more than likely that the palm oil plantation that would be developed in the absence of the project would not be sustainable under ISPO standards, only two of which are located near the project area. While several plantation companies in Central Kalimantan are ISPO certified, only two near the project area, PT Bangun Jaya Alam Permai & PT Wana Sawit Subur Lestari, have received their ISPO certification as of 2016. Both are located just north of TPNP. Also, as of 2016, only 132 companies of the 562 companies⁶ that applied for certification had received an ISPO certification. Thus, it is likely that the proposed plantations in the plantation scenario would likely not provide environmental, social and labor related rights to both identified community groups that would be employed as plantation workers.

In contrast, the Rimba Raya project has hiring staff, and provided training and employment opportunities to 52 local villagers through non-discriminatory policies. Additionally, Rimba Raya has policies governing worker's rights, safety, no-corruption, and other important employment safeguards. The project has also been committed to strengthening external partnerships both with local and international organizations in order to bring additional resources and services to local communities through the project zone. Rimba Raya is working with World Education International to design

⁵ See <http://www.thejakartapost.com/news/2017/04/12/only-12-of-indonesias-oil-palm-plantations-ispo-certified.html>

⁶ <http://www.majalahhortus.com/hukum/item/213-46-perusahaan-sawit-terima-serifikat-ispo.html>

alternative economic activities for villagers. Additionally, the Rimba Raya project is working to bring in other sources of funding or resources from international aid organizations or other partners that are interested in contributing to various project goals such as solar electrification, community-level water filtration, and other important infrastructure needs of the communities.

4 BENEFITS FOR THE PLANET

4.1 Impacts on Natural Capital and Ecosystem Services

The project has identified key biodiversity and natural capital impacts that were achieved over the current monitoring period. The details and monitoring results are presented in the tables below, as well as in section 4.2. All impacts are aligned with one or more SDGs.

Impact #1	20,000 mangrove seeds planted (SDG 6.6.1)
Type of Impact	Positive, Actual, Direct
Affected Natural Capital and/or Ecosystem Service(s)	Mangrove ecosystems, fish and aquatic animal habitat, biodiversity
Resulting Change in Condition	Improved global climate change resilience, storm buffers, and increase in extent of critical aquatic ecosystems

Impact #2	504 hectares of peat swamp have been replanted since 2013 (SDG 6.6.1)
Type of Impact	Positive, Actual, Direct
Affected Natural Capital and/or Ecosystem Service(s)	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration
Resulting Change in Condition	Improved health and integrity of water-related ecosystems

Impact #3	2,242 aluminum packages and 1,036 bottles of packaging from shrimp paste enterprises produced (SDG 12.2.1)
Type of Impact	Negative, Predicted, Indirect
Affected Natural Capital and/or Ecosystem Service(s)	Seruyan River cleanliness, aquatic animals, mangroves, river ecosystems, fish habitat
Resulting Change in Condition	Waste products enter waterways causing increasing mortality of fish and aquatic organism populations, increased eutrophication and floating debris in river, mitigated by: Seruyan river cleanup initiative

Impact #4	504 hectares of peat swamp have been replanted since 2013 (SDG 13)
Type of Impact	Positive, Actual, Direct
Affected Natural Capital and/or Ecosystem Service(s)	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration
Resulting Change in Condition	Improved global climate change resilience

Impact #5	36,505,191 tCO ₂ e of net estimated emissions reductions (SDG 13)
Type of Impact	Positive, Actual, Direct
Affected Natural Capital and/or Ecosystem Service(s)	Forest resources, carbon sequestration, climate resilience
Resulting Change in Condition	Forest and peat carbon stocks prevented from destruction

Impact #6	5.7 tonnes of garbage collected from the Seruyan River and its shores (SDG 14.1.1)
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Type of Impact	Positive, Actual, Direct
Affected Natural Capital and/or Ecosystem Service(s)	Seruyan River cleanliness, aquatic animals, mangroves, river ecosystems, fish habitat
Resulting Change in Condition	Cleaner river and decreased stress to biodiversity (This impact directly mitigates negative impact #3).

Impact #7	20,000 mangrove seeds planted (SDG 14.5.1)
Type of Impact	Positive, Predicted, Indirect
Affected Natural Capital and/or Ecosystem Service(s)	Mangrove ecosystems, fish and aquatic animal habitat, biodiversity
Resulting Change in Condition	Increased habitat for fish/aquatic species

Impact #8	15,187 hectares of forest protected through community firefighting (SDG 15.1.1)
Type of Impact	Positive, Predicted, Direct
Affected Natural Capital and/or Ecosystem Service(s)	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration
Resulting Change in Condition	Maintenance of key habitat for biodiversity and carbon stocks

Impact #9	246,245 seedlings grown in nurseries for reforestation programs (SDG 15.1.1)
Type of Impact	Positive, Predicted, Indirect

Affected Natural Capital and/or Ecosystem Service(s)	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration
Resulting Change in Condition	Increase in reforested areas

Impact #10	47,237 hectares of critical biodiversity habitat protected from conversion to palm oil (SDG 15.1.2)
Type of Impact	Positive, Actual, Direct
Affected Natural Capital and/or Ecosystem Service(s)	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration
Resulting Change in Condition	Protection of critical habitat for endangered species

Impact #11	504 hectares of peat swamp have been replanted since 2013 (SDG 15.2)
Type of Impact	Positive, Predicted, Indirect
Affected Natural Capital and/or Ecosystem Service(s)	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration
Resulting Change in Condition	Increased biodiversity and ecosystem strength

Impact #12	47,237 hectares of land protected as habitat for IUCN Red List Species; a total of 54 species which are likely to be present, 8 of which are confirmed to be present in the project area listed as Critically Endangered or Endangered by the IUCN. An additional 40 species listed as Vulnerable by IUCN are likely present in the project area, 14 of which have been confirmed to be present in nearby areas. (SDG 15.5.1)
Type of Impact	Positive, Predicted, Direct
Affected Natural Capital and/or Ecosystem Service(s)	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration
Resulting Change in Condition	Increased habitat, biodiversity, and natural area

Impact #13	25 orangutans, listed as Endangered on the IUCN Red List, released from orangutan care facility into the project area's forests (SDG 15.5.1)
Type of Impact	Positive, Actual, Direct
Affected Natural Capital and/or Ecosystem Service(s)	Forest ecosystems, biodiversity, endangered species
Resulting Change in Condition	Increased biodiversity and ecosystem strength

4.2 Natural Capital and Ecosystem Services Impact Monitoring

Prior to seeking validation under SD VISTA, the project has been verified under VCS and has claimed 36,505,191 tCO₂e emissions reductions and removals. The project plans to continue claiming greenhouse gas (GHG) emissions reductions and removals. Please see VCS monitoring reports and project description document (available on Verra project portal) for more information on project methodology, monitoring, verified carbon units, and net emissions reductions.

Monitoring Components

The table below, based off of the Theory of Change and predicted and actual project impacts, lists detailed data that the project has gathered to monitor the impacts listed in sections 1 and 4.1.

Project Activities	Affected Natural Capital and/or Ecosystem Service(s)	Monitored Output	Monitored Output from Current Monitoring Period	+/- ?	Corresponding SDG	SDG Target or Indicator (if applicable)
Mangrove Reforestation	Mangrove ecosystems, fish and aquatic animal habitat, biodiversity	# of mangrove seedlings planted	20,000 mangrove seeds planted	+	6.6	6.6.1 Change in the extent of water-related ecosystems over time
Peat Swamp Reforestation	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration	Ha of land reforested	504 hectares of peat swamp have been replanted since 2013	+	6.6	6.6.1 Change in the extent of water-related ecosystems over time
Community Enterprise	Seruyan River cleanliness, aquatic animals, mangroves, river ecosystems, fish habitat	# of packaging materials utilized	2,242 aluminum packages and 1,036 bottles of packaging from shrimp paste enterprises produced	-	12.2	12.2.1 Material footprint
Peat Swamp Reforestation	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration	Ha of land reforested	504 hectares of peat swamp have been replanted since 2013	+	13	13 Emissions removals through reforestation initiatives
Establishment and protection	Forest resources, carbon sequestration, climate resilience	tCO2 emissions reductions	36,505,191 tCO2e of net estimated emissions reductions	+	13	13 Reduction in emissions as compared to the baseline

Project Activities	Affected Natural Capital and/or Ecosystem Service(s)	Monitored Output	Monitored Output from Current Monitoring Period	+/- ?	Corresponding SDG	SDG Target or Indicator (if applicable)
Seruyan River Cleanup	Seruyan River cleanliness, aquatic animals, mangroves, river ecosystems, fish habitat	tonnes of garbage collected	5.7 tonnes of garbage collected from the Seruyan River and its shores	+	14.1	14.1.1 Index of coastal eutrophication and floating plastic debris density
Mangrove Reforestation	Mangrove ecosystems, fish and aquatic animal habitat, biodiversity	# of mangrove seedlings planted	20,000 mangrove seeds planted	+	14.5	14.5.1 Coverage of protected areas in relation to marine areas
Community Firefighting	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration	# of ha of forest preserved	15,187 hectares of forest protected through community firefighting	+	15.1	15.1.1 Forest area as a proportion of total land area
Nurseries	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration	# of trees distributed to tree planting programs	246,245 seedlings grown in nurseries for reforestation programs	+	15.1	15.1.1 Forest area as a proportion of total land area
Establishment and protection of Rimba Raya	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration	# of hectares protected	47,237 hectares of critical biodiversity habitat protected from conversion to palm oil	+	15.1	15.1.2 Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type

Project Activities	Affected Natural Capital and/or Ecosystem Service(s)	Monitored Output	Monitored Output from Current Monitoring Period	+/- ?	Corresponding SDG	SDG Target or Indicator (if applicable)
Peat Swamp Reforestation	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration	Ha of land reforested	504 hectares of peat swamp have been replanted since 2013	+	15.2	15.2 Total area of degraded land under reforestation activities
Support for Tanjung Puting National Park	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration	# hectares of project area protected as buffer to park	47,237 hectares of land protected as habitat for IUCN Red List Species; a total of 54 species which are likely to be present, 17 of which are confirmed to be present near the project area listed as Critically Endangered or Endangered by the IUCN. An additional 40 species listed as Vulnerable by IUCN are likely present in the project area, 13 of which have been confirmed to be present in nearby areas.	+	15.5	15.5.1 Red List Index
Orangutan Care Facility	Forest ecosystems, biodiversity, endangered species	# of orangutans released	25 orangutans, listed as Endangered on the IUCN Red List, released from orangutan care facility into the project area's forests	+	15.5	15.5.1 Red List Index

Biodiversity Monitoring Activities are conducted periodically every year with a target of 8 transect lines. Biodiversity monitoring activities are included in the Rapid Assessment SOP.

Biodiversity Monitoring

Since project commencement, the project has directly and indirectly contributed to the net positive biodiversity impact in the areas. Directly the project continues to provide financial support to OFI to

continue with its work to rehabilitate and release orangutans back into the forest. During this monitoring period, one release camp has been built in Baung village, called "Rimba Release Camp" - in collaboration with OFI. Four to six OFI field staff tend to the release camp and the orangutans that seldom still come to the feeding platform. In addition, a total of 6 orangutans were successfully released in July of 2017 (see "Laporan Orangutan release 2017"). The project has also continued field monitoring for detection of vulnerable and endangered species as well as the development of maps detailing areas at risk within the project. Further, the project has continued to monitor and protect the boundaries of the Project from the agents of deforestation and the impacts of fire.

Indirectly the project has avoided the conversion of 15,091 ha of peat swamp compared with the baseline scenario. This forest represents a significant habitat that will be extremely important to the ongoing protection of the orangutans in the future as well as countless other species, many of which are vulnerable or endangered.

To better measure biodiversity and species distribution in the project area, 25 camera traps have been installed in strategic locations within each management unit. Camera traps will require routine patrols to maintain camera security and yearly refresher trainings will be required to minimize human error when installing the camera traps. A preliminary evaluation of camera trap usage to measure biodiversity and species distribution suggests that the camera itself functions well and is capable of producing sufficient photos of fauna.



Image 1. (Left) Image of the Bornean orangutan (*Pongo pygmaeus* [EN]) captured by camera trap.

Image 2 (Right) Image of two Maroon leaf monkeys (*Presbytis rubicunda* [LC]) captured by camera trap.

Mangrove Monitoring

In March 2019, two mangrove nurseries were constructed in Pantai Seribu Cemara – Sungai Bakau village, along with an additional nursery block in Sei Patin – Sungai Undang village. Planting took place in June 2019 and July 2019.

In late November 2018, Rimba Raya conducted a field visit along with visitors from Kyoto University and Shoyedio to review the results of survey projects in determining agarwood planting locations.

In December 2018, Rimba Raya distributed over 1250 seedlings to Baung village to be planted in the local community.

In April 2019, 5000 agarwood saplings were planted in Block II inside the Rimba Raya Conservation Area as well as the Tanjung Putting national park. Monitoring to determine the planting success rate is planned for August 2019. The distribution of 3750 additional seedlings to villagers in Baung, Palingkau, and Cempaka Baru was planned to take place through May 2019.



Images 3 and 4: Mangrove planting activities

Additional replanting activities occurred in the North units during this monitoring period. An Agarwood planting program was carried out by RRC in collaboration with Kyoto University and Shoyeido. The program achieved its goal of planting 15,000 Agarwood seedlings in total divided into two parts: 10,000 in Rimba Raya area, located in North unit and 5,000 planted in the villages. For additional information on these planting activities, see 20190109 Agarwood Planting_Eng OK.docx.

4.3 Net Positive Natural Capital and Ecosystem Services Impacts

As demonstrated in the table below, the impacts that the project both directly and indirectly contributed to for natural capital and ecosystem services were overwhelmingly positive. The net comparison between the baseline and the project's actual impacts for each SDG is described in this section below.

Project Activity	Impacts	Natural Capital and Ecosystem Services Impacted	Magnitude of Impact
Mangrove Reforestation	Increased hectares of mangrove swamp as carbon sink	Mangrove ecosystems, fish and aquatic animal habitat, biodiversity	Positive
Peat Swamp Reforestation	Increase in the number of hectares of water-related ecosystems	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration	Positive
Community Enterprise Grants Program	Increase in waste and plastic pollution	Seruyan River cleanliness, aquatic animals, mangroves, river	Negative

		ecosystems, fish habitat	
Peat Swamp Reforestation	Increased hectares of peat swamp as carbon sink	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration	Positive
Establishment and protection of Rimba Raya Reserve	Reduction in emissions as compared to the baseline	Forest resources, carbon sequestration, climate resilience	Positive
Community Enterprise Grants Program	Reduced aquatic ecosystem health due to runoff from farms	Aquatic ecosystems, fish habitat, biodiversity	Negative
Seruyan River Cleanup	Decreased amount of trash and dumping in river	Seruyan River cleanliness, aquatic animals, mangroves, river ecosystems, fish habitat	Positive
Mangrove Reforestation	Increase in populations of fish species	Mangrove ecosystems, fish and aquatic animal habitat, biodiversity	Positive
Community Firefighting	Key carbon sinks and habitats protected	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration	Positive
Nurseries	Increase in number of hectares of forest	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration	Positive
Establishment and protection of Rimba Raya Reserve	Decreased area devoted to palm oil plantations as compared to the baseline	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration	Positive
Peat Swamp Reforestation	Increased habitat for endangered species in project zone	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration	Positive
Support for Tanjung Puting National Park	Increased habitat for endangered species in project zone	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration	Positive
Orangutan Care Facility	Increased health and number of orangutans (endangered species) in project zone	Forest ecosystems, biodiversity, endangered species	Positive

The net natural capital and ecosystem service impacts for the project zone during this monitoring period have been positive, and are expected to continue to be positive. The goals for biodiversity impacts for the project include change in the number of hectares significantly better managed by the project for biodiversity conservation (as compared with the without-project scenario) and an increase in protection (via habitat preservation) for the globally Critically Endangered or Endangered species that benefit from reduced threats as a result of project activities (as measured against the without-project scenario).

The ‘without project’ scenario equates to conversion of most or all remaining forests in the project area to oil palm plantations, which is currently the greatest threat to biodiversity in the project zone. A sharp decline in the biodiversity of the project zone through direct negative impacts of land clearing and associated indirect impacts (e.g., providing access to more remote forests for hunting, illegal logging, increased fire risk, and the draining of peat swamp forest) would be the result. Such indirect impacts would also allow greater access to Tanjung Puting National Park which would result in a significant impact on the park’s biodiversity and threaten the OFI Orangutan release program.

Since the project started, it has directly and indirectly contributed to net positive biodiversity impacts described above. Directly the project has provided financial support to OFI to continue with its work to rehabilitate and release orangutan back into the forest. The project has also built a release center in the project area and will continue to monitor and protect the boundaries of the project from the agents of deforestation and the impacts of fire. Indirectly the project has avoided the conversion of 15,187 ha of forest compared with the baseline scenario through implementation of a variety of project activities and monitoring efforts. This forest represents a significant habitat that will be extremely important to the ongoing protection of the orangutans and other endangered species in the future.

Through the establishment of the Rimba Raya project, any negative biodiversity impacts have been avoided and the project activities implemented during this monitoring period have created positive biodiversity impacts.

Rimba Raya is an important part of the greater Tanjung Puting forest mosaic comprised of terrestrial and aquatic ecosystems that house hundreds of species of flora and fauna and provide habitat for many rare and endangered species. A previous study of the project zone documented high biodiversity including 361 species of birds, 122 species of mammals, and 180 species of trees and woody plants likely to be present in the project zone.

Project area forests likely house eight other primate species including the endangered proboscis monkey (*Nasalis larvatus*) and agile gibbon (*Hylobates agilis*). More than half of all mammals occurring in Borneo are likely present on the project area including the more common sun bear (*Helarctos malayanaus*), barking deer (*Muntiacus muntjak*), bearded pig (*Sus barbatus*), endangered Borneo Bay cat (*Catopuma badia*), and hairy-nosed otter (*Lutra sumatrana*). An estimated 45 species of bats are likely to be present in the project area. A third of these are IUCN Red Listed, 13 of which have restricted ranges or are endemic to Borneo.

Some 361 bird species are likely present in the project area. Of these, 156 species are of national and/or international conservation significance. Eighty species are listed by the IUCN as Threatened or Near-Threatened with Global Extinction, including the Endangered Storm’s Stork (*Ciconia stormi*), which is considered one of the twenty most endangered bird species in the world.

A total of 65 species listed as *Critically Endangered* or *Endangered* by IUCN are likely present in the Rimba Raya Project area, 8 of which have been confirmed present in TPNP during the 2017-2019 monitoring period. An additional 40 species listed as *Vulnerable* by IUCN are likely present in the

Project area, 14 of which were confirmed in TNTP within the monitoring period. Conservation of the project area has protected these species.

Rimba Raya biodiversity notably includes the endangered Bornean orangutan (*Pongo pygmaeus*), the only great ape outside of Africa, whose populations have declined 95% in the last century. The project zone provides vital biodiversity support function as a buffer zone of TPNP, by expanding the effective area of lowland forest cover in the greater Tanjung Puting landscape by 14% (OFI 2008). This buffer zone function has expanded available habitat for orangutans and a wide variety of other threatened or protected plant and animal species in the national park.

The project zone also contains legally mandated protection zones along riparian-zone floodplains of the Seruyan River and its numerous tributaries, as well as lake shore buffer zones associated with undiscovered wetland areas potentially present within the freshwater/peat swamp mosaic of habitats in the project zone, and the western shores of the Sembuluh Lake system overlapping the eastern boundary of the project zone. Key threats to this zone include forest loss due to fire and oil palm conversion, degradation of the biodiversity value of the buffer through logging and degradation of riparian and lake side buffer zones through small-scale conversion for agriculture and development of human settlements in lakeside environments. Mitigation activities and impacted flora and fauna are further described in section 4.2, as well as in the VCS and CCB Monitoring report 2017-2019.

The project has achieved substantial net GHG emissions reductions as compared to the baseline over its lifetime. In avoiding deforestation of the project area, the project has created 36,883,231 tCO₂e of emissions reductions during this monitoring period (project start to 2019). However, the project intends to create 127,330,645 tCO₂e of emissions reductions over its entire project lifetime. Please see Verified Carbon Standard (VCS) monitoring reports and project description document (available on Verra project portal) for more information on project methodology, monitoring, verified carbon units, and net emissions reductions.