**Reducing human and environmental health threats through community education and risk mitigation**

 **1. Objective and relevance (the world around us)**

**Main purpose of the intervention and challenges that need to be adressed**The project aims to reduce health threats in the target communities in East Kalimantan, Indonesian Borneo, through improved knowledge of health and the environment, implementation of risk mitigation strategies and increased capacity for advocacy. The community threats include environmental degradation, contamination and pollution, water- and vector-borne diseases. These challenges in the communities are not new, but the situation has been further complicated by the COVID-19 crisis. Many villagers from the target communities that have moved to larger cities for employment reasons, have lost their job and are now moving back to the communities. Land grabbing has increased during this time and forest and river resources are under severe pressure. With more pressure on the natural resources in the area, there is also increased degradation, contamination and pollution, indicating higher risk of disease transmission etc. Hence, urgent action is needed in order to minimize current health threats and prevent larger environmental-related threats (such as pandemics). By recognizing that human health is closely connected to the health of animals and the environment, the proposed project draws on an approach called “One Health” in order to address the challenges. This approach promotes multi-stakeholder cooperation in order to manage health issues at the human-animal-environment interface. Community engagement and educational outreach is seen to be a cost-effective risk mitigation strategy in a high-risk area with low resources. Inspired by the multi-stakeholders thoughts from the One Health approach, implementation will involve the health sector, the educational system and the communities. Finally, the project includes an advocacy component in order to lobby health authorities for improved resources at the local health centers.

**Project location**The proposed intervention will take place in the Indonesian part of Borneo in the East Kalimantan province, about 250 km northwest of the provincial capital Samarinda. The population in East Kalimantan is varied and consists of the indigenous Dayak tribes and groups of people that have migrated to Borneo, mainly from other parts of Indonesia. The Dayaks represent great diversity and consist of more than 200 ethnic subgroups. The project targets three communities of the Dayak Wehea tribe, and a semi-nomadic community (Pelangsiran) of Dayak Punan living within or close to the Kehje Sewen rainforest area.

**Health and environmental issues in the target communities**

In 2015, the partners carried out a pre-assessment in the target communities and in 2017 and 2019 additional health-environment information were gathered during project visits by Save the Orangutan Foundation (StO), as part of community assessments. The results of these assessments all emphasized that several issues in the health-environment interface are present and negatively affecting the communities’ health and welfare. Degradation of the natural resources in the area is a main concern in the villages. The large-scale logging, as well as operationsof **oil palm plantations and mining have resulted in significant environmental destruction, which negatively affects the health condition of the communities. Polluted river water is a main issue, as the target communities rely on this for drinking as well as bathing and washing.** Run-off from oil palm plantations and mercury from mining into the rivers, is a serious health threat to the communities. Many community members are not aware of these potential consequences of unsafe drinking water. Rashes and digestion problems are regular issues due to the polluted water, and Diarrhoeal disease is common. This is also related to poor personal and domestic hygiene. Again, issues with personal hygiene and infection risk are not necessarily something that the target communities are aware of. Moreover, the villages also see regular outbreaks of serious diseases, amongst other Dengue and Malaria. For instance In 2016, the communities had a severe Malaria and Dengue plaque. While access to direct treatment of these diseases is one approach, much can be done by risk mitigation and prevention. These vector-borne diseases are related to unsatisfactory water management. Hence, improved knowledge of water management could potentially limit the impact of these diseases. In Pelangsiran community, specific threats also include lack of sanitation facilities, cleanliness and hygiene issues as well as improper waste disposal and lack of sorting.

While these health threats are not new and the partners have for long discussed these issues and wanted to work with solutions to these, the current COVID-19 pandemic has further emphasized how vulnerable the target communities are in such a crisis and the need for improving their resilience to prevent health issues. The remote location and limited infrastructure of the target communities make them very isolated and they lack access to knowledge. Social media is often the most important source of information, but here a lot of misleading information abounds. At the same time, the communities are far from larger health facilities and have limited access to medical care. The Pelangsiran community has no direct access to health care within the village. In contrast, the Dayak Wehea villages each has a “Posyandu”, which is a local integrated health center, each managed by local people that has received a short health education. The main focus of a Posyandu is to provide routine health checks (typically for infants, pregnant mothers and elders), provide counseling and distribute vitamins. Furthermore, the villages each have a “Pusban” with one nurse working there, and midwifes working from time to time. These are local health units that besides supporting the Posyandu’s activities, handle health complaints and treat certain diseases. However, this is limited to common community diseases according to their authority. A Pusban is a sort of a local extension to a “Puskesmas” (a public health center) which is only found at sub-district level in Muara Wahau city. There are only doctors in Muara Wahau city at the Puskesmas, but sometimes doctors visit the villages. Simple blood tests can be carried out in the villages, but laboratory tests, for instance to check for Malaria, have to be carried out in Muara Wahau. There is not much support from the authorities to the health centers in the villages. Hence, advocacy is strongly needed in order to inform authorities about the needs of the villages. The village Pusbans also carry out health promotion activities, but with limited resources to encourage actual behavior change in the communities.Thus,health promotion is important to prioritize in the project area.

**One Health – issues at the human-animal-environment interface**

”One Health” is an approach that acknowledges that human health, animal health and environmental health is closely connected, and seek solutions through a multidisciplinary approach involving stakeholders from different sectors. This is not a new approach, but has indeed become even more important in recent years, especially now due to the current COVID-19 pandemic. Many factors have changed interactions between people, animals, plants, and our environment. Human populations are growing and expanding into new geographic areas. As a result, more people live in close contact with wild and domestic animals, both livestock and pets. Animals play an important role in our lives, whether for food, fiber, livelihoods or companionship. Close contact with animals and their environments provides more opportunities for diseases to pass between animals and people. The earth has experienced changes in climate and land use, such as deforestation, intensive farming practices, resource exploitation etc. Disruptions in environmental conditions and habitats can provide new opportunities for diseases to pass to animals. The movement of people, animals, and animal products has increased from international travel and trade. As a result, diseases can spread quickly across borders and around the globe. Hence, One Health issues are health threats shared by people, animals and the environment and include amongst other zoonotic diseases [[1]](#footnote-1), food safety and food security, vector-borne diseases and environmental contamination.

The threats in the target communities include environmental degradation, contamination and pollution, water- and vector-borne diseases. All this fall into the One Health category, and urgently needs an integrated approach involving several sectors and stakeholders. The COVID-19 pandemic is demonstrating that we as humans cannot any longer deny the need to care for nature and let nature care for us. A healthy environment is a great antiviral, and protecting more nature will help humanity to rebound from the current pandemic and stop the next one before it starts. With inspiration from the One Health Approach the proposed project aims to address the health-related consequences of the degraded environment in which the target communities are located, and involve different sectors aimed at preventing and mitigating these threats. This will involve the education system, health clinics and health authorities, along with the communities and their village leaders.

**How this intervention will strengthen civil society**

The proposed project revolves around community education and awareness raising for increased knowledge and community capacity to handle issues at the health-environment interface. As mentioned above the target communities are affected negatively by the degradation of natural resources, water- and vector-borne diseases and lack of awareness. Education is chosen as a strategy for implementing health promotion and disease risk and prevention strategies. The education level of the target communities is limited and health and environmental education is basically non-existent. Furthermore, as mentioned, the resources at the health centers are few, even though health promotion are a part of their activities. The intervention thus seeks to benefit the communities in terms of health-environmental education both targeting school kids and young, as well as community adults. This will strengthen the communities through improved awareness, which can lead to behavior change and in the end lead to a reduction of disease risk as well as a healthier environment. Improved knowledge and awareness moreover form basis for dialogue with health authorities and throughout the intervention the communities will be strengthened in their capacity to engage in such dialogue and advocate for improved resources at the health centers at the local level to prevent and treat diseases, in order for the village members to get increased access to health resources. Finally, it is also the hope that the target communities can inspire other communities to also incorporate healthy/environmentally-friendly activities in regular community actions.

**Interventions and partners’ response to climate- and environmental conditions**The project addresses and is a response to environmental and climate conditions which are linked with human health. The welfare of the target communities is closely connected with the state of the environment and climate that they live in and which surrounds them. Since this has been heavily degraded the last few decades, the health issues have likewise increased and their conditions are further worsening by the limited awareness and resources to prevent these. The project responds to these environmental conditions with its focus on environmental health education and advocacy for improved local resources to prevent and treat diseases, which will motivate and foster community action and environmentally-friendly behavior aimed at mitigating the external factors influencing their environment and climate (e.g. deforestation and water pollution that stems from run off from plantations). In addition, the intervention will promote community actions to prevent further degradation of the environment, among others through proper waste management.

**2. The partnership/collaborators (our starting point)**

**Experiences, capacities and resources of participant partners and of other actors and knowledge of the context in which the intervention takes place**

Borneo Orangutan Survival Foundation (BOSF) is an Indonesian organization established in 1991 under the name Orangutan Conservation Project, but was renamed in 2003. It is a large NGO with more than 460 staff, working with conservation of the Bornean orangutan and habitat conservation.

Community empowerment is an integrated part of the four programs the organization runs in Kalimantan, Indonesian Borneo, amongst other in cooperation with StO and with support from CISU since 2008. The program of BOSF-RHO (Orangutan Habitat Restoration) will be responsible for implementation of the proposed project. The BOSF-RHO program was established in 2009 with the purpose of managing an Ecosystem Restoration Concession (ERC) for the release of orangutans. In addition to forest protection and orangutan releases, BOSF-RHO works with government relations and community development in surrounding villages. The BOSF-RHO community development team is highly skilled and have many years of practical experience working with community development both in the target communities and in other areas in East Kalimantan. The majority of the community development team has been recruited from nearby communities and surrounding areas, which increases the knowledge of the challenges in the communities. The local communities are by now also very familiar with BOSF-RHO as they have been present in the communities for quite some time, among others through CISU-funded projects with StO. Specific for the proposed project, it should be mentioned that BOSF-RHO has earlier collaborated with BOS Switzerland on a project with environmental education and health care support. Through this project BOSF-RHO gained a solid understanding of the health issues in the communities, including common diseases and capacities at the local health centers. Here, BOSF-RHO worked with distribution of medicine, including the supply of nutritious drinks for mothers and babies. Moreover, BOSF-RHO has worked directly with health issues related to COVID-19 through a CISU-approved request this year. This has included working on COVID-19 awareness raising, checkpoint posts with health checks and distribution of medicine and equipment. Most important, this effort has increased cooperation with local health centers and coordination with health authorities, including specific COVID-19 health task forces. Coordination with the task forces has led to improved possibilities for testing and medical care for people with symptoms. BOSF-RHO is in general up to date with the most recent knowledge on health issues through information from health authorities and they pass on this knowledge to the local villagers. Altogether, these experiences are crucial for the proposed project.

Save the Orangutan Foundation (StO)/Orangutang Fonden was founded in 2015 by the members-based association Save the Orangutan established in 2003 and has since taken over the activities of the association. StO forms part of the international network of BOS partners with BOS Foundation located in Indonesia and other partners located in Germany, Switzerland, United Kingdom and Australia. StO works for the survival of the orangutan and its habitat, as well as sustainable development for the local population. Since 2007, this has involved community development and capacity building initiatives, with an increasing focus on addressing root causes and the need for sustainable development and rights of local indigenous peoples and other forest dependent communities. Hence, this has been a permanent area of intervention for almost 15 years and StO has thus gained extensive experience within this field. This counts professional practical skills, both on-the-ground level and within partner cooperation. StO as a whole is qualified within a broad range of academic disciplines; from natural resources management and international development to communication, project- and financial management and monitoring. This combination of experiences within many disciplines provides useful knowledge into crosscutting topics and it also makes it feasible to successfully engage in new areas of intervention. The Head of Programs at StO has worked and lived on Borneo for three years, working with environmental management systems. This also included the development of participant-oriented educational material for school students. Moreover, the Project Officer at StO has great experience teaching environmental topics to school students. These experiences will make project management of the proposed project and technical assistance and inputs to local partners more feasible.

**Any previous acquaintance or cooperation between the partners, and how these experiences have fed constructively into the development of the proposed intervention.**

StO and BOSF have long cooperated on programs in Kalimantan, Indonesian Borneo, working for improved livelihoods for local communities in and around orangutan habitat. This has involved projects in Central Kalimantan province since 2008 and in communities in East Kalimantan province since 2015 with BOSF-RHO.In 2015,StO and BOSF-RHO conducted a Joint Finalization in the target communities, which contributed with comprehensive background data about the communities (amongst other, health and environmental information). Updates on this information has since been gathered by BOSF-RHO and StO during community assessments in 2017 and in November 2019. Information from these assessments have fed into the design of the proposed project, together with learnings from the partners implementation of projects in the target communities. The partners ran a project between 2016 and 2018 in East Kalimantan and this was followed by their current partnership project: ”Culture-based advocacy for achiveing rights and recognition” with six indigenous Dayak Wehea communities in East Kalimantan, three of which are also included as a target group in the proposed project. Implementation of these projects has contributed to confirming and further developing the partner’s strategy on community development, and build up the practical experiences in management of such projects.

**Contributions, roles and responsibilities of the partners and other actors**

BOSF-RHO will be the local partner responsible for project implementation. They have great legitimacy in the Dayak Wehea communities due to several projects in the area. They are experienced in implementing community development projects with a strong focus on building local capacity within different topics. BOSF-RHO has great experience with collaboration between relevant institutions and stakeholders, including health authorities. Furthermore, BOSF-RHO has great knowledge of political structures and government relations and are highly experienced in mapping duty-bearers, political power structures, developing advocacy strategies and influencing decision-makers. This will be of great importance in the proposed project in order to advocate relevant health authorities for support to local health centers.StO will have the overall responsibility of the project and will carry out monitoring based on regular reporting and dialogue with BOSF-RHO. Furthermore, StO will engage in ongoing knowledge-sharing with BOSF-RHO. StO will also contribute with a start-up workshop including One Health theory, inputs to the development of a baseline study and analysis of results as well as inputs to the environmental part of the education material. In the end of the project period StO, BOSF-RHO, the communities, health center staff and teachers will participate in a workshop discussing progress and results of the community action plan. Here, lessons-learned will also be analysed, which is expected to have a positive effect of the project result as well as the ongoing partnership development.
To carry out the health and environmental education program, BOSF-RHO will make a collaboration with four schools in the villages: three elementary schools (SDN 006 in Bea Nehas village, SDN 018 in Dea Beq village, SDN 005 in Diaq Lay village) and one junior high school (SMPN Muara Wahau – located in Bea Nehas). Eight teachers will be involved (two from each school). The project activities will also be organized in close collaboration with staff from the local health centers in the villages. In Bea Nehas this include Posyandu Matahari, Posyandu Mentari and Pusban of Bea Nehas. In Diaq Lay, this include Posyandu Rambutan, Posyandu Cemerlang and Pusban of Diaq Lay. In Dea Beq, this include Posyandu Dahlia, Posyandu Berlian and Pusban of Diaq Lay. Staff from the health centers will help create educational material together with the teachers and BOSF-RHO. They will also teach health issues at village meetings and workshops and assist with the formulation and implementation of a One Health action plan. Selected representatives will join a community committee responsible for facilitating community engagement in health and environmental issues. Moreover, keynote speakers (doctors/nurses) from the Muara Wahau public health center (Puskesmas) will be invited to join meetings and debates in order to provide their perspective on the local health issues. Hence, the intervention seeks to build new strong collaborative partnerships with these schools and health centers, where these actors mutually profit from each other’s competencies and experiences, thereby building a solid base for the project to develop upon. This is inspired by the multi-stakeholder element in the One Health approach. BOSF-RHO already has a strong collaboration with the schools and health centers and the final agreement will be made during the first part of the project period.

**Intervention’s contribution to developing the relation and collaboration between partners**

The intervention will contribute to the partners’ strategy and objectives for rights-based community development and further strengthen their collaboration on implementation of such projects and contribute to an increasing knowledge base of experiences and lessons-learned. In the implementation, the partners will draw on experiences from their current CISU-funded project in East Kalimantan as well as from earlier joint interventions in East Kalimantan, as well as with other partners. The proposed intervention will include a new area of cooperation between BOSF-RHO and StO in terms of the health aspects, and will thus contribute to important learning and experiences, which will strengthen the partner’s cooperation and management of such interventions. This in turn will develop the partnership positively towards their shared goals.

**3. Target groups, objectives, and expected results (our intervention)**

**Composition of the target groups**

The primary target group consist of three Dayak Wehea villages located by the Tian River: Dea Beq, Diaq Lay and Bea Nehas. In the Dayak Wehea villages, they are all indigenous peoples and first and foremost identify themselves as the Dayak Wehea tribe. The Dayak Wehea are strongly dependent on their culture that involves, among others, practice of their traditions and customs, as well as protection and worship of the forest and natural resources. Their traditional belief system is mixed with their official religion.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Village | Population (person) | Male | Female | Household | Islam % | Christian % | Catholic % |
| Dea Beq | 325 | 181 | 144 | 172 | 13,42 | 3,88 | 82,70 |
| Diaq Lay | 435 | 218 | 217 | 192 | 18,60 | 2,89 | 78,51 |
| Bea Nehas | 820 | 413 | 407 | 370 | 28,61 | 6,33 | 65,06 |

*Data from the National Statistics Agency (BPS) 2017-2019.*In addition to the three Dayak Wehea villages, the proposed project will involve Pelangsiran – a small village on the border of the Kehje Sewen Forest. Pelangsiran is a semi-nomadic community of Dayak Punan with a dynamic number of members (from ten to about hundred). The community members are working as porters and drivers, are involved in trade as well as agarwood development. Community members in Pelangsiran have limited awareness of health and environmental issues and educational meetings and socialization in this community will be conducted as part of the project.
The proposed project will directly involve approximately 135 persons. This includes a minimum of 50 school kids and young (5th and 6th grade in School SDN 006 Bea Nehas, SDN 018 Dea Beq, and SDN 005 Diaq Lay as well as 7th and 8th grade (junior high school) in School SMPN 3 Muara Wahau in Bea Nehas). The village schools are small with a low number of students (ranging from between 45-116 as the total number of students in the schools throughout all grades). Moreover, it includes a minimum of 70 adult community members in the Dayak Wehea villages and Pelangsiran, as well as approximately 15 implementing actors (eight teachers, health center staff and community committee). It is important to emphasize that a much higher number will benefit from the outcome of this intervention: beyond the direct project reach, there is a secondary target group that indirectly gains from the impacts of the intervention, though not participating in project activities. This includes the rest of the community members in the target communities as well as the surrounding communities.

**How target groups will participate in- and benefit from intervention**

The project is developed based on the health and environmental challenges described by the target group. The threats in the target communities include environmental degradation, contamination and pollution, water- and vector-borne diseases. The target group will benefit directly from the intervention through improved knowledge of health and the environment, implementation of risk mitigation strategies and increased capacity for advocacy – which will in the end reduce health threats. The target group will be in the frontline of the project and will be key to positive change themselves. School kids will participate in health- and environmental education in school, including debates and field trips. Adult community members will discuss health- and environmental issues at village meetings and participate in the formulation of a One Health action plan. Activities described in the action plan will be carried out regularly by community members: coupling knowledge with action will foster actual behavioral change that creates long-term sustainability.

**Objectives and expected results**

Overall development objective:The four target communities in East Kalimantan are faced with reduced health threats through improved knowledge of health and the environment, implementation of risk mitigation strategies and increased capacity for advocacy.

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| **Objectives** | **Indicators** | **Activities** |
| **In pursuit of immediate objective 1:** The target communities have gained increased awareness and knowledge of health and environmental problems, and recognized that human health is closely connected to the health of the environment. | **Indicators objective 1****\*A)** Local village schools, local health centers and BOSF-RHO are cooperating and have developed a health and environmental education programme.**\*B)** Kids and young from four village schools have gained increased knowledge of human health and the environment, and recognized that these topics are linked.**\*C)** A community committee has been established fostering community engagement in health and environmental debates. | **Activity 1.1.1.**: Preparation of education material.**Activity 1.1.2.**: Capacity building of local teachers.**Activity 1.1.3.**: Meetings to discuss environmental and health education of the villagers. **Activity 1.1.4:** Establishment of community committee.**Activity 1.2.1:** Environmental and health education in schools twice a month. **Activity 1.2.2:** School debates (environmental and health problems). **Activity 1.2.3:** Field trips arranged by schools and BOSF-RHO.**Activity 1.3.1:** Regular village meetings about environmental and health issues**Activity 1.3.2:** Community debates about environmental and health issues. |
| **In pursuit of immediate objective 2:** The target communities have gained capacity on how to develop and implement risk mitigation strategies in order to reduce health threats related to environmental degradation.  | **Indicators objective 2****\*A)** A community One Health action plan has been established, providing guidelines and describing community activities to be carried out at a regular basis.**\*B)** Risky behaviors (drinking unsafe water, inappropriate water management, garbage disposal etc.) have been minimized (compared to baseline study) through the implementation of the community One Health action plan. | **Activity 2.1.1:** Workshops for identification of practices/behaviors that support human health. **Activity 2.1.2:** Workshops for identification of methods to mitigate disease risk in people/animals.**Activity 2.1.3:** Formulation of a community One Health action plan, including health guidelines, describing community mitigation activities to be carried out regularly.**Activity 2.1.4:** Production, and print of awareness raising material explaining community action plan.**Activity 2.1.5:** Display of awareness raising material at central places in the villages and dissemination at village meetings, local health centers and schools. **Activity 2.2.1:** Dissemination of Community One Health action plan at village meetings.**Activity 2.2.2:** Activities described in community action plans are carried out at regular interval. |
| **In pursuit of immediate objective 3:** Community capacity to engage in dialogue with the health authorities has increased and positively contributed to advocacy for increased resources at the local health centers.  | **Indicators objective 3****\*A)** Communities have discussed and become aware of their health conditions and the challenges they face in preventing these, increasing their capacity to engage in dialogue and advocacy meetings with health authorities.**\*B)** Increased coordination with health authorities has led to improved resources at local health centers. | **Activity 3.1.1:** Community meetings to analyze and discuss health baseline assessments and inventory of health clinics.**Activity 3.1.2:** Focus group meetings to discuss common diseases in the communities.**Activity 3.2.1:** Creation of health advocacy flowchart.**Activity 3.2.2:** Coordination meetings with health authorities.  |
| **In pursuit of more than one objective:** Assessments, plans, monitoring and evaluation have been carried out to ensure that partners, target groups and the involved stakeholders are able to successfully implement and learn from the intervention.  |  | **Activity 4.1.1.** StO start-up workshop including facilitation of One Health theory.**Activity 4.1.2:** Health baseline study mapping village health, hygiene habits, risky behaviors etc.**Activity 4.1.3:** Project work plan preparation,**Activity 4.2.1:** StO online monitoring assessing status and progress of project implementation.**Activity 4.2.2:** Multi-stakeholder workshop assessing outcome of education and action plan. |

**Strategy of the intervention**The project will start up in November 2020 and will be implemented over a timeframe of 12 months. Due to the current COVID-19 pandemic it is not possible for StO to travel to Indonesia as visa issuance in 2020 is paused at the moment. However, domestic travelling in Indonesia is possible, which means that BOSF-RHO is able to implement activities as planned. At the very beginning of the project period, StO will facilitate an online start-up workshop including inputs to the project work plan and One Health theory. It is important to emphasize that the proposed project is not directly following a One Health implementation framework. Rather, the theory behind is used as method of how to view the challenges in the communities. Often used at a national or global scale, One Health implementation will besides engagement of civil society typically incorporate political commitment, policy formulation, knowledge sharing and institutional collaboration. One Health is thus a simple and powerful concept with a rather complex implementation process. What this project will draw on, is the underlying thinking that the health of people, animals, and the environment are linked to one another. This thinking will be used in order to address the health and environmental threats in the target villages (environmental degradation, contamination and pollution, water- and vector-borne diseases). The proposed project is furthermore inspired by the One Health approach as it builds on participation of all stakeholders across different sectors and communication between disciplines. The proposed project will thus involve different sectors to work together to manage health issues that intersect humans, animals and the environment to achieve better public health outcomes. This includes the health sector and the educational system working together with the communities. Improved knowledge and awareness will be coupled with concrete action. The communities will be at the frontline of the project creating a community action plan based on identified issues. Finally, the project includes an advocacy component where community representatives and BOSF-RHO will lobby health authorities for improved resources at the local health centers.
As mentioned, the challenges in the communities are not new, but has been further complicated by COVID-19. The partners are currently running another project in East Kalimantan with a focus on culture-based advocacy for achieving rights and recognition. That project acknowledges that there are health issues in the communities, but have taken on another approach, which is equally important as the one in the proposed project. The culture-based approach is expected to lead to proudness of the Dayak Wehea indigenous culture, and in turn strengthen the Dayak Wehea identity and reduce their feeling of despair related to their livelihood situation. This is believed to contribute to the people’s feeling that they are still in charge of their own situation, and can take the lead in their future livelihood situation. However, as the situation has changed due to COVID-19 (people moving back to villages, more pressure on resources, greater disease risk etc), there is an urgent need to also work directly with health and environmental issues. Hence the proposed project and the other project will run simultaneously and they are expected to complement and strengthen the results of both interventions.

School education

Primary education is a crucial stage in the development of a person's behaviour, social awareness and selflessness. At school, kids can learn values and behaviors that will stay with them throughout their adulthood and define who they are. Hence, it is important to spark an interest in health issues and caring for and protecting the environment while children are still at school. BOSF-RHO and local health center staff will carry out capacity building of the local teachers in order for them to pass on the relevant knowledge to school kids. Environmental and health education material will be prepared by BOSF-RHO, the local health centers and local teachers. StO will provide inputs to the environmental part of the education material, which at least will include thematic parts about ecosystems, basic living conditions and anthropogenic activities. StO will also contribute in terms of making the education material participant-oriented and user-friendly. The final education material will be in Bahasa Indonesia and divided into 5/6 grade, 7/8 grade and junior high school. The education materials and the teaching will be adapted to the age and maturity of the children and will not only be theoretical but also practical, entertaining and fun (depending on age, lessons will include quizzes, coloring etc.).The teaching material will form basis for environmental and health education in schools twice a month in elementary schools beginning in 2021. Besides lessons twice a month, class debates and discussions will be conducted regularly at the junior high schools, led by the school teachers and assisted by BOSF-RHO. These sessions will serve as a platform to discuss environmental and health problems in order to think about the causes, Finally, the schools and BOSF-RHO will arrange field trips for the school kids and young to enjoy natural areas, as well as to see environmental problems such as pollution and degradation with their own eyes.

Community awareness and One Health action plan for risk mitigation

At the beginning of the project period, a baseline study will be carried out, in coordination with the local health centers - in order to map health conditions, hygiene habits, risky behaviors and resources at local health centers. Information obtained through this study is crucial for workshop planning. Afterwards, BOSF-RHO will conduct meetings with health staff and village leaders in each of the villages in order to discuss environmental and health education of the villagers. A community committee, including village leaders and health center representatives will be established with the purpose of engaging the community in health and environmental issues. BOSF-RHO, health staff and this committee will be responsible for facilitating village meetings and workshops about health and environmental issues. Debates about environmental and health problems and their link will also be arranged in order for the community members to consider the causes and come up with potential solutions. Keynote speakers (doctors or nurses) from the public health center (Puskesmas) in Muara Wahau will be invited to facilitate meetings or debates. Workshops will be conducted to i) identify practices supporting personal human health (e.g. personal/domestic hygiene, property maintenance, waste disposal and sorting, food/water storage), and ii) discuss mitigation of disease risk in people/animals. Based on the findings of the initial workshops, the community members will formulate a community One Health action plan, including human and environmental health guidelines, describing community mitigation activities to be carried out regularly, also at a household level. The action plan is termed a “One Health action plan” as the well-being of the villagers is closely related to the environment which surrounds them. The plan will summarize and classify risks whether they are considered a risk to human, animal or environmental health.Based on the community One Health action plan, awareness raising material will be developed, produced and printed. Subsequently, this will be displayed central places in the villages (standing banners) and disseminated at village meetings, at the local health centers and schools (guidance books and pamphlets). Topics that are mentioned in the action plan will be taught at village meetings. The lessons at these meetings will be combined with an ”action mode” such as gymnastics or cleaning of an area of the village (e.g. waste removal and collection). An instructor from the Muara Wahau health center (Puskemas PKM1) will be invited to conduct gymnastics. This aims to make it more interesting and fun for community members and also serve to foster motivation and connect learning and behavioral change.

Pelangsiran community

Little information is available, as the Pelangsiran is a semi-nomadic community with a changing number of community members present in the village. With no schools and health centers, the implementation approach will be different and cannot include school education and community action planning in the same way. However, the baseline study will include Pelangsiran. Based on the information obtained from the study, BOSF-RHO and health center staff will conduct four thorough educational meetings in Pelangsiran throughout the project period, including the dissemination of awareness material. These meetings are expected to create an understanding of the link between human and environmental health, and will also discuss where and how to seek medical care. Meetings here will also be coupled with an ”action mode” in order to foster motivation and couple behavior and learning.

Health advocacy

This part of the project will supplement the awareness and risk mitigation work, and target general health issues and health center resources.Community meetings will be conducted in order to analyze and discuss the health baseline study and inventory of health clinics. StO will provide their input to the baseline study results in a short report. Furthermore, focus group meetings will be conducted in order to discuss common diseases in the villages. Altogether, this will create awareness of the health situation in the villages and will prepare community representatives to engage in dialogue meetings with authorities together with health staff and BOSF-RHO. Relevant health authorities will be mapped through an advocacy flow chart. Subsequently, the relevant health authorities will be informed about community health issues. This will include lobbying for improved facilities and resources at the local health centers, including improved medicine distribution, improved opportunities for health parameter tests (diabetes, cholesterol etc) and finally improved skills of local midwifes.

Final Multi-stakeholder workshop
In the end of the project, StO will facilitate a multi-stakeholder workshop in Indonesia in order to assess outcomes of the education programme as well as the Community action plan – and to compare with the baseline study. All involved actors in the project will participate in the first days of meetings, which will be conducted in the communities in order to discuss local experiences. Subsequently BOSF-RHO and StO will conduct a partner meeting in Samarinda. Here, the outcomes of the education and the One Health action plan will be discussed in terms of how it has improvied the conditions in the villages etc. Important learnings will also be discussed in order to reflect on the project.

**Plans for systematising experiences along the way and at the end of the intervention**

The proposed intervention builds on an established monitoring and reporting system, including documentation of lessons learned. Through community meetings and training sessions carried out, experiences and lessons-learned will be gathered by BOSF-RHO project staff. This makes it possible for BOSF-RHO to evaluate progress, as well as any unexpected challenges. BOSF-RHO will conduct regular internal meetings for discussing project progress, status and challenges. These discussions and lessons-learned will also form the basis for quarterly reports that BOSF-RHO will be preparing for StO. At the multi-stakeholder workshop by the end of the intervention, StO will prepare a document on lessons-learned together with BOSF-RHO. At StO, the Head of Programs is responsible for gathering and systematizing experiences. Project updates will be given at regular internal meetings, along with a discussion of how to make use of the experiences in other projects and in communication work.

4. Intervention-related information work in Denmark

Information work in Denmark is included, with the aim to increase awareness of the situation in East Kalimantan and the results of the proposed project. StO’s nearly 9000 supporters, will be the main target group for the information and communication work through StO’s website, monthly newsletters, online articles, and social media posts. However, target groups beyond the existent donors, will be sought reached through social media and written articles to the public media. The Head of Communication will be responsible for this work, while the Head of Programs and Project Officer will assist in the preparation with information and updates on the project.

1. Zoonotic diseases are diseases that can spread between animals and people (such as COVID-19). [↑](#footnote-ref-1)