

“Our protected and rehabilitated peatland saves us and our valuable trees from peat fire”

Polaria is a 50-year-old woman who lives in Muara Manompas, a village located in the peatland of Muara Batang Toru Sub District, South Tapanuli, North Sumatera Province. On a daily basis she helps her husband take care of their 2 hectares of palm oil plantation, which is a source of their income. Year after year, she notices that the harvests are decreasing, and many of the palm trees are uprooted because of peat subsidence. On August 9th, 2020, there was a peat fire incident. The fire originated from the area adjacent to the palm oil concession zone. It lasted for 9 days, and burnt down at least 55 ha of peatland on village land. The location was not particularly close to her plantation; however, the fire could rapidly spread below the peatland and reach her plantation. At that time, Polaria and several women decided to join the the community groups in the peat firefighting.

In the framework of the Eco-DRR project, Wetlands International Indonesia is supporting 15 community groups in Muara Manompas and Terapung Raya Villages, South Tapanuli District, to restore degraded peat ecosystems and improve livelihood and build resilience.

The programme is focused on enhancing the community's capacities in preventing and mitigating peat fires, which is combined with the efforts to restore the peatland hydrology, by rewetting, replanting the native tree species, gradually phasing-out the palm oil cultivations, and revitalizing the community's livelihoods. Community groups were established and trained in monitoring water levels to anticipate and assess the risk of peat fires, as well as in preventing and extinguishing peat fires. The bio-rights mechanism was implemented in the project: communities received certain trainings and limited conditional loans for alternative livelihood activities, and they actively participate in the peat restoration initiatives. The community members

take part in peat water level measurement and the construction of early warning tools, boreholes, and dip wells (peatland water surface monitoring well). The community groups are required to prepare the seedlings for re-planting the degraded peatland and nurture the tree nursery. In return, they will receive an interest-free conditional loan for sustainable-small scale business development to generate additional profits and improve their livelihoods. This loan will turn into grant once the community groups are able to prevent peat fires in the project location and ensures an 80% survival rate of planted native peat plants.



The peat fire was so difficult to suppress. When the peatland were burned, we were so frustrated about its adverse impact on our health and how to stop the spread of fires

- Polaria Derita Sianipar.



Female members of the community groups participated in firefighting activities. Photo Credit: Didik Fitrianto/Wetlands International Indonesia.

Community participation in those activities makes them eligible for signing the bio-rights agreement (conditional loan). In this agreement, the community groups agreed to implement 10 collective activities in setting up the peat fire monitoring system. For example, they will schedule peat patrols, Early Warning Systems, maintain dip wells and boreholes, continue water level monitoring, and nursery maintenance, including preparation of *Jelutong* plantation.

In time, the community proposed new initiatives. For example, in response to the peat fire incident in August 2020, the community proposed to construct 4 large canals in locations that are prone to fire, to ensure that the peat is rewetted and thus less prone to fire. Betel nut stems were used to construct the canal blockings. It is a local material that is abundantly available in the project location. Aside from benefiting local residents, the use of these materials reduces transportation cost.

As the lesson learned from the peat fire in August, cooperation with the other agencies and local authorities, including the police department and military forces, was felt necessary and strengthened through combined activities. The community groups managed to set-up and operationalise the community-based fire brigades that work together with each community group, managing a regular fire patrol in the area. Regular coordination meetings on fire prevention are also conducted. The local communities, using their own resources, also managed to build 2 peatland monitoring towers to detect possible fire outbreaks in the coming dry season. Since the fire incident in August 2020, there have been no more large-scale peat fires reported, as the patrol team handled hotspots early on.

In addition to peat fire prevention and peat rewetting activities, the community members also planted *Jelutong* seedlings for revegetation. *Jelutong* is known for its latex, which can be used as the material for chewing gum or other latex-based products. It is expected that the community can harvest the latex around 7 years after cultivation. In the meantime, another source of income for small-scale businesses are developed using the bio-rights fund. 15 small-scale businesses of different types already run individually or in groups. With an initial capital of 100 to 150 EUR/person at the first stage, the profit made from the business ranges from 40 to 320 EUR/month.



Polaria Derita Sianipar, with her colleagues conducting Jelutong planting. Photo Credit: Vernando Maruli Aruan/Wetlands International Indonesia.



Community groups voluntarily build the peat fire monitoring tower using their own resource. Photo Credit: Vernando Maruli Aruan/ Wetlands International Indonesia.



we can harvest in the future, and from the loans we can start small businesses at home and increase our family income

- Polaria Derita Sianipar.



PARTNERS FOR RESILIENCE



**The Netherlands
Red Cross**



Care



BUILDING FLOURISHING COMMUNITIES



**Wetlands
INTERNATIONAL**