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## Poaching: Where local communities can help where other approaches fail

Poaching, the illegal trading, and hunting of wildlife is a well-known concern in several parts of the world. The UN included measures against poaching in their sustainable development goal agenda as a marker (15.7) under the SDG15. As of terrestrial species, rhinos, elephants, tigers, and pangolins are only some of the species that are currently facing extinction due to poaching. The Global Wildlife Conservation suggests that the drivers for such illegal activities are traditional- and folk medicine, lack of food or money, pet trades and a wish for status symbols.

The consequences of poaching and illegal trade of wildlife are many, including defaunation, reduced animal populations, loss of biodiversity and even an increased risk of zoonotic diseases. In order to prevent poaching and its consequences, millions of US dollars are invested each year into different organizations and measures. On the other hand, according to the wildlife trade monitoring network, TRAFFIC, illegal trading of wildlife is estimated to be a billion-dollar business, indicating that the current efforts are not effective enough. Even with all the current forces, something is lacking.

An anti-poaching initiative in Nepal involved the local community in their attempt to lessen the increase of poaching. The initiative created a community-based anti-poaching operation (CBAPO) and has been proved to reduce poaching in exposed areas. Another initiative established in southern Mozambique was the Mangalane Community Scout Program (MCSP), involving local inhabitants with a larger accountability for the community. A similar project was created in Namibia, involving former poachers. Based on the information derived from these initiatives, it seems like involving the local communities is the way to go. But if so, how can we develop these types of initiatives on a global scale?

This paper uses the previously mentioned examples in order to reflect upon the current situation on poaching. It will discuss the effectiveness of including locals and how this could be put into a broader perspective to fight illegal trading of wildlife and poaching.

There are many different anti-poaching measures being deployed around the world today, some more effective than others. The interest for new technological solutions is at an all-time high with large amounts of money being spent on products like drones and electronic tags that can be used to keep track of animals (Fynn and Kolawole, 2020; Hauenstein et al., 2019). However, there is a limit for how much this technology can do without enough manpower to follow up the poaching activity registered by it. Therefore, one of the largest expense posts towards protecting wildlife is the hiring and education of rangers (Fynn and Kolawole, 2020). The problem is that the protected areas often are very large, and it is simply impossible for a team of rangers, even though they are many and well educated, to cover the entirety of the areas.

Most countries plagued by poaching also have a set of strict anti-poaching laws and in some poaching can be punished with a lifetime sentence (Goitom, 2013). This might have a deterrent

effect on small time poachers, but it has shown little effectiveness in hindering larger criminal networks (Flynn and Kolawole, 2020).

The main issue concerning these measures that are in place to stop poaching is that they are not focused on the locals. External resources are just not as effective as local knowledge. In the cases where the locals are not friendly minded towards the anti-poaching measures, they are bound to fail (Flynn and Kolawole, 2020). Local communities have a more intimate knowledge of the landscapes and they have larger social networks in the areas. This enables them to outwit external rangers, which they will do if they experience the anti-poaching measures as a threat to their livelihoods. Measures like hunting bans as well as banning livestock from grassing in protected areas, can therefore work against their purpose. It might drive locals to poach themselves or help middlemen by hiding them and aiding them with their knowledge. Through their local networks they know where government (or other agencies) patrols are and if they should be caught many have local police on their side (Flynn and Kolawole, 2020).

In order to preserve wildlife, it is important to establish a protected area. Important factors that contribute to poaching include poverty, lack of awareness, unemployment, and political unrest. In Nepal, there has been a major shift in the management paradigm for protected areas from a protective approach to a collaborative approach. It has been shown that government-based anti-poaching operation, in which the involvement of park staff and security personnel has been used, is not enough to prevent poaching and illegal activity. Therefore, Nepal initiated anti-poaching activities by involving the local community. Due to the increase in poaching, the youth in the buffer zone became more concerned about this and have thus organized themselves into groups to reduce illegal poaching, which led to the establishment of the antipoaching concept. Thus, a Community-based anti-poaching operation (CBAPO) was launched, which are the unique community-based initiatives for wildlife building that involve local people in managing their own natural resources. Here, the local young people who live in buffer zones, e. g. community forests, are working voluntarily. They do this to curb the illegal trade in wildlife and support anti-poaching operations. Today, there are over 400 units working across the country in Nepal to prevent poaching. This is done by, among other things, patrolling, surveillance, vigilance and collecting information against illegal activities. The information they collect about illegal activities is case registered, which increases the efficiency of the project. Increased level of awareness in society has been the most important achievement of CBAPO, which has given as high participation of the local population as Nepal has had. This scheme has proven to work and poaching in Nepal has been reduced after the local population has contributed to this project (Bhatta, 2018).

The CBAPO in Nepal works because it includes the local community, but it is not the only program that has succeeded in doing this. Other successful programs show similar results: When locals can take control of their own land, and they get a source of income, the poaching activity decreases. In Southern Mozambique, the Mangalane Community Scout Programme (MCSP) was formed to build a locally owned wildlife economy (Massé et al., 2017). The MCSP employs local residents which are trusted by the communities, because they are accountable to their own communities, not to higher organs. In Namibia, a similar program has worked, where the government was put in charge of the land, and former poachers who knew the trade were put in charge to stop poachers. This started as a small-scale project, but with the help and funding from the World Wide Life Fund for Nature (WWF) it has now been scaled up to a national level (Kasaona, 2015). All these programs show us that the inclusion of local communities is an effective approach to end poaching because it addresses the underlying

issues. We must remember that poaching does not just have devastating effects on the environment and on biodiversity, but also social and economic consequences, including the death of humans.

The funding of these projects is a big issue when it comes to their longevity. If they want to expand using only funds from external sources, it is bound to reach a point where there is not enough money to put into the projects, when no money comes out of them. A solution for this is to include the projects in the circular economy, which could be done in several ways. Holden and Lockyer (2021) have come up with an experimental model where legal sale of naturally deceased organisms could fund anti-poaching enforcements like the one in Nepal. This would benefit humans without directly killing animals, and the model can also be modified to include other forms of conservation, like new protected areas and ecosystem restoration. Of course, this would depend on how much of the profits went back into funding the projects, and how effective the scavenging of carcasses would be. New protected areas could give locals work in the form of conservation and tourism, which also could benefit them, and not just international tourism companies and national governments, which is usually the case (Mbaiwa, 2005). This could also result in long term funding, which would make the programs less dependent on outside help.

Another problem that arises when trying to expand these projects is corruption, which is an issue in communities where local police are helping poachers because it benefits them more than helping anti-poaching organisations. Evidence from the projects mentioned earlier show that corruption in the communities declined when people could own and manage their own areas and got access to their natural sources and cultural sites. Before, locals felt like the lives of animals were more important than their own (Hübschle, 2017), which is understandable when we realize how many resources are put into helping the animals, while people have to turn to illegal activity just to support their families.

To sum up, poaching causes multiple issues for ecosystems, including reduced animal populations and loss of biodiversity. To fight these illegal activities, technological solutions in combination with the hiring and education of rangers are the most common counter measures. Although millions of dollars are invested annually, the effects of these traditional strategies are limited, mostly because the habitats of the targeted species are too large to be entirely surveilled (Finn and Kolawole, 2020). Furthermore, anti-poaching laws show little effect on professional poachers, who are responsible for most of the activities. Since all these strategies are applied externally, they do not take the local communities into account, which is a fundamental issue.

In contrast, the community-based anti-poaching approach applied in Nepal shows significant results, leading to a decline of poaching activities in the designated areas (Bhatta et al, 2018). Similar measures have been applied in Mozambique and Namibia, also achieving positive results (Massé 2017; Kasaona 2015). The success of this new approach can be linked to the fact that it combats the underlying drivers of poaching activities, which are poverty and unemployment of the local population (Lunstrum and Givá, 2020). Nevertheless, to ensure long-term success of the implemented strategies, issues like sufficient funding over longer periods of time as well as corruption in the authorities must be overcome.

All in all, the community-based anti-poaching approach has shown that it is a useful strategy to fight illegal poaching activities.

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