

Protected Areas in War Zones – Global Analysis Towards the Nature for Peace Concept

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***Abstract.** Around 17% of the worldwide land ecosystems are currently under conservation [1]. Protected areas have the following three functions: protection, research and education. Through the Nature for Peace concept, the plan is to assign a further function for protected areas. Protected areas have the potential to become focal points for recuperation of those affected by an armed conflict (wounded, affected, vulnerable, uprooted persons or groups). Protected areas offer the necessary environment to carry out this rehabilitation function. To disseminate the Nature for Peace concept, the intent is to build a cluster to share materials and connect stakeholders. For establishing this cluster, a worldwide needs analysis is required. With the tool of ArcGIS the armed conflicts of the last few years were linked with protected areas in order to obtain a selection of areas where the Nature for Peace concept can be applied.*

Keywords. UNESCO, peace, conflicts, nature, rehabilitation, mental health

1 Introduction

Armed conflicts have a significant negative impact on protected areas and local residents. The mental and emotional pressure and burdens brought on by armed conflicts are a major challenge for the local population. Protected areas are important retreat and regeneration spaces, particularly in times of conflict and post-conflict.

The vision of the Nature for Peace concept is, that protected areas shall become focal points for the recuperation of those affected by conflict [2]. Through the application of the concept, protected areas can offer rehabilitation by connecting victims of armed conflicts through interaction with nature (health generation, identity, awareness raising). The Nature for Peace concept was established in 2022 by Emily Chrystie, Marta Korchemlyuk, and Elisabeth Wiegeler during the Management of Conservation Areas Course at the UNESCO Chair for Sustainable Management of Conservation Areas.

The Nature for Peace concept should establish itself as a method that can be applied in post-conflict areas worldwide. Therefore, establishing a cluster for sharing knowledge and resources between stakeholders and post-conflict protected areas is very significant. To support the Nature for Peace idea, an overview of the current situation is important. For this purpose, an accurate analysis is required to investigate the demand of the Nature for Peace concept. By evaluating the armed conflicts of the last seven years, it is feasible to identify protected areas for which the Nature for Peace concept is applicable. With this information, a cluster for disseminating the Nature for Peace concept can be built [3].

2 Methodology

The main objective of this research is to find out which protected areas have been affected by armed wars. Once these countries and protected areas have been identified, the research question can be answered. To address the research question (What is the global need of the nature for peace concept?) a large amount of data with information about conflicts is required. To find out for which protected areas the Nature for Peace concept is applicable, it is necessary to gather the armed conflicts and protected areas with an existing management.

The data collection process is divided into more phases. At the beginning, the concepts of conflict and peace were defined. The different phases of war and peace were identified. Afterward, the conflict countries for the analysis were gathered and the protected areas were collected. A combination of several approaches was chosen to compile the countries for this study. On the one hand, data from the largest conflict research institute was used (Uppsala University has established a Conflict Data Program database [4]). On the other hand, a war database was compiled manually on the basis of internet and news research. During the process of data collection, conflict data from the World Bank were included [5].

It is important for the application of the Nature for Peace concept that the protected areas have a functioning management, which is able to carry out the Nature for Peace concept. Since the UNESCO Geoparks, UNESCO Biosphere Reserves, UNESCO World Heritage Sites, Peace Parks and Transboundary Areas should have such a management structure, these categories were selected. The data of the UNESCO sites were obtained directly from the UNESCO database [6] [7] [8]. The data for the Transboundary Areas and Peace Parks were manually prepared.

3 Results

The data were determined by the Uppsala University - Conflict Data Program database [4] and conflict data from the World Bank [5] were included. In addition, and as a cross-check, a war database was compiled manually on the basis of internet and news research. These three databases were merged according to different criteria. Conflicts from the last 7 years were included, as timeliness is very important for the Nature for Peace concept. All countries with a total of more than 1000 casualties were taken into consideration. If countries were below this limit, they were still considered if they still had an active conflict in 2021 and 2022. Many of the worldwide conflicts are still *ongoing* because there are still no peace agreements or solutions that both parties agree to. However, many of these ongoing conflicts are inactive conflicts in which no action is taking place. Since the Nature for Peace concept is mainly focused on active conflicts, as it can be a rapid response measure, active conflicts are particularly relevant for this analysis. The current wars and border conflicts of the last two years have been included due to their relevance, even if they have less than 1000 casualties. The result is, that in the following 32 countries, the protected areas were analysed:

Afghanistan, Armenia, Azerbaijan, Burkina Faso, Cameroon, Chad, Colombia, Congo, Egypt, Ethiopia, India, Indonesia, Iran, Iraq, Israel, Kenya, Libya, Mali, Mozambique, Myanmar, Niger, Nigeria, Pakistan, Philippines, Somalia, South Sudan, Sudan, Syria, Thailand, Turkey, Ukraine, Yemen.

Once the data was collected and processed, the criteria were used to identify specific conflicts, countries and protected areas. The data of the conflicts were merged with the protected areas using the ArcGIS program. After analysing the data, a list and a map of protected areas affected by conflict in the last seven years were drawn up. These protected areas can be future Nature for Peace Parks or *Landscapes of Hope*.

The results show that 95 UNESCO Biosphere Reserves, 39 UNESCO Natural World Heritage Sites, 9 UNESCO Global Geoparks, 41 Transboundary Parks can apply the Nature for Peace concept.

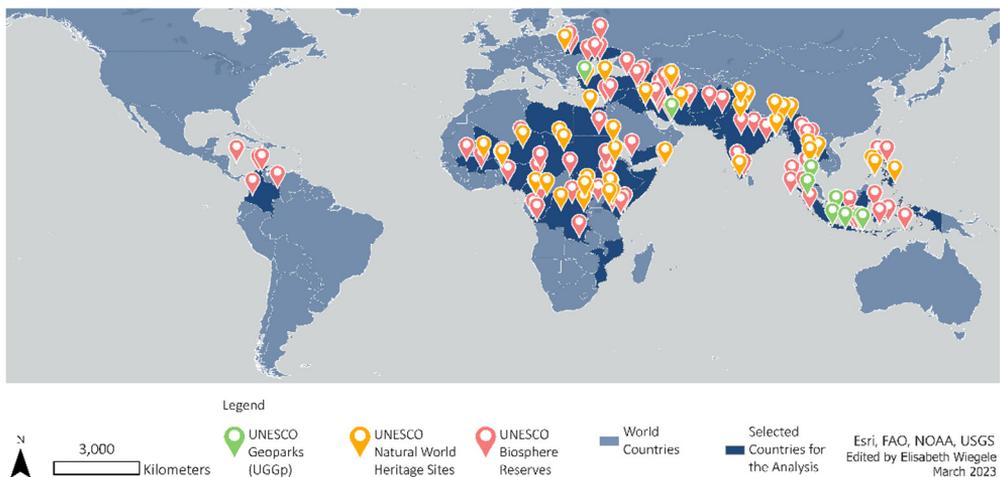


Figure 1. Protected areas that could apply the Nature for Peace concept.

4 Outlook

By evaluating the armed conflicts of the last seven years, protected areas for which the Nature for Peace concept is applicable were identified. With this information it is manageable to build a cluster. Within this, information about the Nature for Peace concept can be shared, manuals and workshop materials can be distributed and an exchange between stakeholders can take place. A cluster of this kind is the most effective way to disseminate the Nature for Peace concept and help many conflict-affected communities.

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