

A photograph of a dense tropical forest with lush green foliage. In the background, misty mountains are visible under a soft, overcast sky. The text is overlaid in yellow.

Options for a Way Forward

**Kaeng Krachan Forest Complex
IUCN World Heritage Advisory Mission**

21 – 28 November 2022

March 2023

Table of Contents

Disclaimers	iv
Acknowledgments	v
Executive Summary	vi
List of Acronyms and Abbreviations	ix
1. Background	1
2. Mandate, Objective, Approach and Structure	2
3. Findings	3
3.1 KKFC in the wider landscape	3
3.2 KKFC boundaries	6
3.2.1 Implications of the international border	6
3.2.2 KKFC boundaries and proposed dam construction	10
3.2.3 The (missing?) link between KKNP and KBNP	14
3.2.4 KKFC as a serial property	16
3.3 Towards an effective buffer zone	16
3.4 Overarching coordination and management of the Forest Complex.....	20
3.5 Wildlife and habitat management.....	22
3.6 People in the Forest Complex	23
3.7 Additional observations.....	30
3.7.1 Natural World Heritage in Thailand	30
3.7.2 Nomination / inscription criteria	32
4. Conclusions and Recommendations.....	32
4.1 Specific recommendations to ensure compliance with Operational Guidelines	33
4.2 Additional Recommendations	38
5. Bibliography and useful Links	40
5.1 Books, journal articles and reports.....	40
5.2 Useful links	44
Annexes	46
Annex 1: Terms of Reference	46
Annex 2: Mission Agenda as conducted	48
Annex 3: People additionally consulted	54
Annex 4: World Heritage Committee Decision 44 COM 8B.7	55
Annex 5: Selected Maps	58
Annexed Map 1: Tiger connectivity across Thailand	58
Annexed Map 2: Hotspot areas for selected taxa in Thailand.....	59
Annexed Map 3: Overview of the Tenasserim Corridor.	60
Annex 6: Photographic Documentation	61
Photograph 4: Location of the community meeting in Bang Kloy, Kaeng Krachan National Park.	61
Photograph 5: Real-time monitoring of elephants to reduce human-elephant conflict, Kui Buri National Park.....	61
Photograph 6: Bridge connecting the Bang Kloy and Pong Luek communities in Kaeng Krachan National Park.....	62
Photograph 7: Wildlife tourism in Kui Buri National Park favored by habitat management.	62
Photograph 8: View of the surroundings of Kui Buri National Park in an area subject to intense human-elephant conflict.	63
Photograph 9: Group photo during the Advisory Mission with selected DNP staff.....	63
Annex 7: Community Request to terminate the Nhong Ta Dang Project	64

List of Textboxes

Textbox 1: Excerpts from past World Heritage Committee decisions highlighting opportunities in terms of landscape connectivity.	9
Textbox 2: Key paragraphs referring to buffer zones in the Operational Guidelines.	17

List of Maps

Map 1: A basic overview of key forest complexes in Thailand.	5
Map 2: KKFC as inscribed on the World Heritage List in 2021.	6
Map 3: Management Zones of KKFC.	7
Map 4: Location of the proposed dam construction in Mae Nam Phachi Wildlife Sanctuary, KKFC.	12
Map 5: Initial buffer zone proposed by the State Party.	18

Disclaimers

1. The IUCN mission was undertaken by Mr Tilman Jaeger. He serves as an Advisor to the International Union for Conservation of Nature (IUCN) on World Heritage and is a member of the IUCN World Commission on Protected Areas (WCPA) and IUCN Commission on Environmental, Economic and Social Policy (CEESP), but acting in an independent capacity under contract by IUCN. IUCN was in turn contracted by the Government of Thailand to facilitate the Advisory Mission documented in this report. Notwithstanding, any views expressed are not the views of the Government of Thailand and shall not be represented as such. IUCN takes the full and final responsibility for this report.
2. The designation of geographical entities in this report, and the presentation of the material, do not imply the expression of any opinion whatsoever on the part of IUCN concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.
3. A brief visit and literature review cannot amount to an in-depth analysis of a complex and evolving situation on the ground in a large forest complex composed of several protected areas. There are competing views on several of the issues discussed in this report, implying a need to discuss and, to the degree possible, reconcile these views. It is important to emphasize that this report is explicitly restricted to a situation analysis against the backdrop of the Operational Guidelines for the Implementation of the World Heritage Convention (OGs) and World Heritage Committee decisions referring to Kaeng Krachan Forest Complex and specifically Kaeng Krachan National Park, including prior to its inscription on the World Heritage List in 2021. Conclusions and recommendations are derived accordingly.

Acknowledgments

IUCN thanks the mission expert, Mr Tilman Jaeger, for his work, including the lead role in preparing the present report. IUCN and Mr Jaeger wish to acknowledge the impressive hospitality of the State Party throughout the mission. Special thanks are due to Ambassador Sihasak Phuangketkeow, Dr. Rungnapar Pattanavibool, Deputy Director-General of the Department of National Parks, Wildlife and Plant Conservation (DNP), as well as Ms. Sunee Sakseau, Director of the DNP Office of Foreign Affairs, and her team.

Sincere thanks are due to Mr. Phichai Watcharawongpriboon, Director of the Regional Protected Areas Office No. 3 (Phetchaburi), Mr. Mana Pernphun, Director of the Wildlife Conservation Division, Protected Areas Regional Office 3, Mr. Samphan Ngampraphat, Director of the National Parks Division, Protected Areas Regional Office 3, Mr. Somchet Chanthana, Superintendent of Kaeng Krachan National Park and all of their colleagues met in the wider forest complex. The inspiring conversations with DNP's Mr. Thammanoon Temchai, are gratefully acknowledged.

Of the many communities in and around the forest complex, three could briefly be visited. The mission owes a debt of gratitude to all community members who took the time to share their views in Ban Purakam, Ban Pong Luek and Ban Bang Kloy Lang.

The entire mission was conducted in communication with the IUCN Secretariat. Particular thanks are due to Ms. Supranee Kampongsun and Mr. Pratheep Mekatitam, Head and Programme Officer for Protected Areas, respectively, with IUCN's Thailand Programme, as well as the Heritage and Culture Team at IUCN Headquarters.

Further thanks are due to Dr. Pornkamol Jornburom, Conservation Program Manager with the Wildlife Conservation Society and Suphisit Jitvijak with WWF-Thailand. Finally, sincere thanks are due all the resource persons listed in Annex 3.

Executive Summary

Thailand's Kaeng Krachan Forest Complex (KKFC) is a large protected area complex along the border with Myanmar. The intergovernmental World Heritage Committee in 2021 decided to inscribe the vast majority of the complex on the World Heritage List following earlier referral decisions over several years. The property was inscribed "on the understanding" that the State Party had addressed "issues raised" in its earlier Decision 43 COM 8B.5 (Baku, 2019) and "thus fulfilled the requirements of the Operational Guidelines". The understanding explicitly encompasses the continuation of "work in progress" in terms of local communities and livelihoods, as well as modifications to the boundaries of the nominated property upon intervention by the neighbouring State Party.

The earlier referrals also had the objective to "allow the State Party to fully address and comply with multiple requirements", including the need to "more fully address the concerns that have been raised by the Office of the United Nations High Commissioner for Human Rights concerning Karen communities within the Kaeng Krachan National Park, including the implementation of a participatory process to resolve rights and livelihood concerns and to achieve a consensus of support for the nomination of the property that is fully consistent with the principle of free, prior and informed consent" (Decision 40 COM 8B.11, Istanbul/UNESCO's Headquarters, 2016).

The Committee encouraged the State Party to consider independent advice in support of the above-noted "work in progress". In response, the State Party invited an IUCN Advisory Mission, which was conducted in November 2022. The mission had the objective to assess the state of conservation and offer forward-looking recommendations regarding (a) the property's boundaries; (b) the boundaries and management of the buffer zone; (c) the 2019 amendments to the National Park Act and Wildlife Conservation and Protection Act; (d) effective and inclusive participation of local communities and ethnic minorities in the management of the property; (e) the implications of the border setting; (f) the population status of key flora and fauna, monitoring mechanisms and connectivity conservation; and (g) impacts of existing and planned infrastructure development, including dams and roads. The mission was accompanied by senior DNP staff and met with a wide range of actors, including governmental and non-governmental organizations, scientists and three Karen communities. This report is the main product of the Advisory Mission.

The overarching conclusion of the mission is that KKFC is currently not in full compliance with all applicable World Heritage requirements and there is a need to continue "work in progress" noted by the World Heritage Committee. The following recommendations have the objective to contribute to the way forward.

Recommendation 1

Noting the undisputable conservation importance of the area between the inscribed World Heritage property and the border with Myanmar, commit to manage and protect the area removed from the nominated area as if it were part of the inscribed property.

Recommendation 2

Continue dialogue with relevant actors in Myanmar to protect wildlife moving in and out of KKFC and work towards the eventual inclusion of the area between the inscribed property and the border with Myanmar, ideally along with a future transboundary extension.

Recommendation 3

Carefully and comprehensively assess all environmental and social impacts of the proposed Nong Ta Dang (Purakam) dam, specifically taking into account OUV of the nearby property and retaining a no-project option as one possible outcome.

Recommendation 4

Determine a buffer zone, tailored to the local situation around KKFC, via the procedure of a Minor Boundary Modification.

Recommendation 5

Consider the transboundary dimension of the Dawna Tenasserim Landscape in all planning in preparation for future opportunities to engage in enhanced coordination and cooperation.

Recommendation 6

Assess the feasibility and parameters of a possible transboundary extension of KKFC to be prepared for a time when opportunities and political windows may arise.

Recommendation 7

Consolidate the Protected Area Committees for each unit of KKFC, fully reflecting new legislation governing national parks and wildlife sanctuaries since 2019 through meaningful participation of local communities.

Recommendation 8

Consider the creation of an overarching management coordination mechanism for the entire KKFC and its buffer zone, explicitly including the Kui Buri Forest Reserve, and ensure full stakeholder and rights-holder participation, clear terms of reference and a defined and adequate mandate for such a mechanism.

Recommendation 9

Consider the elaboration of an overarching strategic management plan for the entire KKFC and its buffer zone, explicitly including the Kui Buri Forest Reserve, fully involving all stakeholders and rights-holders.

Recommendation 10

Ensure adequate management and protection for the Kui Buri Forest Reserve to ensure coherence and connectivity, as well as full compliance with World Heritage requirements.

Recommendation 11

Carefully assess disease contagion and transmission risks associated with habitat and wildlife management resulting in artificially increased aggregations of large mammals.

Undoubtedly the biggest question marks regard the rights and involvement of local communities living in and/or using protected areas. While Thailand does not formally recognize “indigenous peoples” in its territory, there are many signs of an increasing de facto acknowledgement of the existence and rights of societal groups, which elsewhere and in relevant intergovernmental processes would be referred to as ‘indigenous peoples’. Regardless of nomenclature, it is well-documented that Thailand’s protected areas have typically been inhabited and used by local communities prior to protected area designation. As a result, there has been a striking discrepancy between an exclusionist legal framework and the reality on the ground over many decades. Since 2019 only, new legislation enables certain rights for, and involvement of, local people.

The situation of the Karen community, today mostly living in Lower Bang Kloy inside Kaeng Krachan National Park, has attracted national and international concern including through the visibility given through the World Heritage nomination and inscription process, as set out in previous IUCN reports¹. The mission included a visit to Lower Bang Kloy and it became clear that conflicts remain unresolved despite efforts to move forward based on the new National Parks Act in vigor since 2019. In the 2021 IUCN Evaluation report, IUCN recommended close collaboration and consultation with the Special Procedures Branch of the Office of the United Nations High Commissioner for Human Rights (UNOHCHR) in order to fully and satisfactorily resolve issues raised by the Special Rapporteurs on Human Rights. It was also suggested the National Human Rights Commission of Thailand jointly address the concerns raised by the local

¹ <https://whc.unesco.org/en/list/1461/documents/>

communities. As the satisfactory resolution of the situation relies on issues raised by institutions and organizations concerned with human rights, it is recommended that action continues to resolve concerns raised with the UNOHCHR and the National Human Rights Commission.

Strained relationships between governmental protected area agencies and local communities and resource users cannot be changed overnight by the stroke of a pen. Experience from across the world leaves no doubt that a real reorientation of conservation requires the building of mutual trust and respect over years, decades, even generations. This in turn requires sufficient time, effort and nothing less than a redefinition of roles, including of governmental institutions. The following recommendations are offered to start moving in the direction enabled by new legislation.

Recommendation 12

Carefully examine and enhance participatory management and governance arrangements enabled by new legislation in place since 2019.

Recommendation 13

Consult and work closely with the Special Procedures Branch of the Office of the United Nations High Commissioner for Human Rights (UNOHCHR) and the National Human Rights Commission of Thailand in order to fully and satisfactorily resolve issues raised by the Special Rapporteurs.

Recommendation 14

Consider the development of pilot projects in KKFC to explore better ways to reconcile legitimate economic, social, cultural and spiritual needs of communities living in and/or using protected areas and conservation objectives.

As agreed with the State Party, it was considered helpful to document additional recommendations beyond the above:

Recommendation 15

Strengthen systematic exchange among Thailand's three natural World Heritage properties to work towards a coherent approach to natural World Heritage properties.

Recommendation 16

Carefully consider the ongoing lessons from KKFC in current efforts to nominate the 'Andaman Sea Nature Reserves of Thailand', taking into account changes to the Operational Guidelines and the nomination format in terms of community consent and participation.

Recommendation 17

Consider the creation of a mechanism or platform for systematic exchange and coordination between KKFC and WEFCOM or even all three natural World Heritage properties in Thailand.

Recommendation 18

Assess all options to maintain and restore the connectivity between KKFC and Thungyai-Huai Kha Khaeng Wildlife Sanctuaries and the wider WEFCOM, including the feasibility of an extension to KKFC to the north to incorporate current forest reserves.

Recommendation 19

Assess the feasibility of an extension of the Thungyai-Huai Kha Khaeng Wildlife Sanctuaries World Heritage property within WEFCOM as a contribution to ensuring ecological connectivity between KKFC and the Thungyai-Huai Kha Khaeng Wildlife Sanctuaries.

Recommendation 20

Elaborate maps of KKFC showing the surrounding landscape in order to facilitate discussions and planning and for submission to the Secretariat of the World Heritage Convention.

List of Acronyms and Abbreviations

AB	Advisory Body
AIPP	Asia Indigenous Peoples Pact
AITT	Assembly of Indigenous and Tribal Peoples of Thailand
ARO	Asia Regional Office (IUCN)
ASEAN	Association of Southeast Asian Nations
BCI	(Tenasserim) Biodiversity Conservation Corridor Initiative
CDD	Community Development Department (Ministry of Interior of Thailand)
CIPT	Council of Indigenous Peoples in Thailand
CPTNP	Chaloem Phrakiat Thai Prachan National Park (also CPNP)
DNP	Department of National Parks, Wildlife and Plant Conservation
DPKY-FC	Dong Phrayayen-Khao Yai Forest Complex
DTL	Dawna Tenasserim Landscape
EIA	Environmental Impact Assessment
FPIC	Free, Prior and Informed Consent
ha	Hectare (equivalent to 6.25 rai)
HEC	Human-Elephant Conflict
HRC	(United Nations) Human Rights Council
HWC	Human-Wildlife Conflict
IMPECT	Inter Mountain Peoples Education and Culture in Thailand Association
IPLC	Indigenous peoples and local communities
IPRI	Indigenous Peoples Rights International
IUCN	International Union for Conservation of Nature
IWGIA	International Work Group for Indigenous Affairs
KBFR	Kui Buri Forest Reserve
KBNP	Kui Buri National Park
KKFC	Kaeng Krachan Forest Complex
KKNP	Kaeng Krachan National Park
km	kilometers
m a.s.l	meters above sea level
MNPWS	Mae Nam Phachi Wildlife Sanctuary (also MPWS)
MNRE	Ministry of Natural Resources and Environment
MOAC	Ministry of Agriculture and Cooperatives
MPWS	Mae Nam Phachi Wildlife Sanctuary (also MNPWS)
NEB	National Environmental Board
NGO	Non-governmental Organization
NHRC	National Human Rights Commission

NIPT	Network of Indigenous Peoples in Thailand
NTFP	Non-Timber Forest Products
OG	Operational Guidelines
OHCHR	Office of the High Commissioner for Human Rights (UN)
ONEP	Office of Natural Resources and Environmental Policy and Planning
OUV	Outstanding Universal Value
PAC	Protected Area Committee
RFD	Royal Forest Department (under MNRE)
RID	Royal Irrigation Department
SAC	Sirindhorn Anthropology Centre
SEA	Strategic Environmental Assessment
SMART	Spatial Monitoring and Reporting Tool
THKKWS	Thungyai-Huai Kha Khaeng Wildlife Sanctuaries
ToR	Terms of Reference
TRAFFIC	Wildlife Trade Monitoring Network
UN	United Nations
UNDP/SGP	United Nations Development Programme/Small Grants Programme
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNPFII	United Nations Permanent Forum on Indigenous Issues
WCS	Wildlife Conservation Society
WEFCOM	Western Forest Complex
WS	Wildlife Sanctuary
WWF	World Wide Fund for Nature

1. Background

Thailand's Kaeng Krachan Forest Complex (KKFC) is located on the eastern side of the Tenasserim Range along the border with Myanmar in the north of the Malay Peninsula. As inscribed on the World Heritage List in 2021, the serial property encompasses several, mostly contiguous protected areas totaling some 400,000 ha of for the most part densely forested, mountainous terrain across three of Thailand's provinces.

KKFC was initially nominated for possible World Heritage status in early 2014 and the only IUCN field evaluation mission took place in September of that year. The World Heritage Committee, the decision-making body of the intergovernmental Convention, considered the nomination over several of its annual sessions from 2015 (39COM, Bonn) to 2021 (44COM, Fuzhou/Online meeting). In 2015, 2016 and 2019, the World Heritage Committee referred² the inscription to allow the State Party to fully address and comply with multiple requirements it considered pending in line with the independent IUCN evaluations. All Committee decisions and all IUCN evaluations referred to in this report are publicly accessible at <https://whc.unesco.org/en/list/1461/documents/>.

While the Committee highlighted the strong potential under World Heritage criterion (x) in line with the corresponding IUCN recommendation, it also noted the need to "more fully address the concerns that have been raised by the Office of the United Nations High Commissioner for Human Rights concerning Karen communities within the Kaeng Krachan National Park, including the implementation of a participatory process to resolve rights and livelihood concerns and to achieve a consensus of support for the nomination of the property that is fully consistent with the principle of free, prior and informed consent" (Decision 40 COM 8B.11, Istanbul/UNESCO's Headquarters, 2016³). More recently, the Committee took note of the "progress made by the State Party on the adoption of legislation aimed at addressing the concerns of the rights and livelihoods of the local communities including the Karen within the Kaeng Krachan National Park", while still referring the inscription to allow the State Party to "demonstrate that all concerns have been resolved, in full consultation with the local communities, in accordance with paragraph 123 of the Operational Guidelines" (Decision 43 COM 8B.5, Baku, 2019).

Also in 2019, the Committee noted a need to "revise the boundaries of the property based on agreement between the States Parties of Thailand and Myanmar". The State Party responded by removing roughly 15% from the nominated area along the international border. As acknowledged by the Committee, however, this reduction in area of the nominated property raises questions in terms of compliance with World Heritage requirements. In addition, IUCN identified technical questions regarding the conservation status and population viability of key threatened species. IUCN also encouraged Thailand to consider nomination under natural World Heritage criterion (ix). Thailand submitted additional information in 2019 and 2020, which IUCN fully considered in its independent statutory evaluations feeding into the Committee's decision-making. The complex nomination and evaluation history is documented in the most recent evaluation report of IUCN, which is in the public domain at the above web address (IUCN, 2021).

The World Heritage Committee inscribed KKFC on the World Heritage List in 2021 in its Decision 44 COM 8B.7 (Fuzhou/Online meeting, see Annex 4 for full text) under criterion (x). As noted above, IUCN's associated evaluation and continued recommendation for deferral⁴ of the inscription is publicly accessible. While the Committee took a decision perceived by some observers as premature and inconsistent with previous Committee decisions, it continued to acknowledge a need to address the issues raised in its earlier decisions. Concretely, the

² Note that the Operational Guidelines distinguish referral versus deferral of inscriptions, see paragraphs 158 and 159, respectively. One important implication is that deferrals trigger another IUCN field evaluation, whereas referrals do not.

³ The joint communications from the OHCHR Special Rapporteurs dated 2021 and 2020 are available at <https://whc.unesco.org/document/188151> and <https://whc.unesco.org/document/184790>, along with the State Party responses at <https://whc.unesco.org/document/188262> and <https://whc.unesco.org/document/187092>.

⁴ See footnote 1.

Committee proceeded to inscribe the nominated property “on the understanding” that the State Party had addressed “issues raised” in its earlier Decision 43 COM 8B.5 (Baku, 2019) and “thus fulfilled the requirements of the Operational Guidelines”. The “understanding” explicitly encompasses the continuation of “work in progress”. The Committee adopted the following language to specify the key issues to be further addressed:

- “(…) (a) Mutual understanding on the revised boundaries of the property based on agreement between the States Parties of Thailand and Myanmar;
- (ii) ensuring related conditions of integrity, protection and management; and
- (iii) ensuring consultations with the local communities on their livelihoods and their active engagement in management of the property (…)

The Committee also encouraged the State Party “to strengthen dialogue and consultation with IUCN in preparation for a regular review of the general state of conservation, including expert missions”. Following up on the latter encouragement, the State Party invited an IUCN Advisory mission in December 2021.

Advisory Missions are not to be confused with statutory evaluation and reactive monitoring missions. According to the Operational Guidelines (OG), Advisory Missions are “missions providing expert advice to a State Party on specific matters” (footnote 2 of OG Paragraph 28) and offer an opportunity for the State Party to receive independent technical inputs to inform its decision-making. The Operational Guidelines specify that the “entire costs of Advisory missions are borne by the State Party inviting the mission, except where the State Party is eligible for relevant International Assistance or funding from the new budget line for Advisory missions approved by Decision 38 COM 12”. The Advisory Mission was conducted in late November 2022 as detailed in Annex 2. This report is the main product of the Advisory Mission.

2. Mandate, Objective, Approach and Structure

It is crucial to understand that the Advisory Mission documented in this report was invited by - and conducted in close cooperation with - the State Party of Thailand according to the framework governing the World Heritage Convention. This report offers an independent technical perspective in alignment with the Convention text, the Operational Guidelines (OG) and the so far 4 specific decisions by the World Heritage Committee. The scope and mandate of this report is further detailed in the mutually agreed Terms of Reference (see Annex 1 for full text).

It is well-documented that some actors and observers in Thailand and elsewhere perceive and approach the situation in and around KKFC from distinct angles and against the backdrop of reference frameworks other than the World Heritage Convention. Sub-chapter 5.2 of this report offers selected links enabling readers to get a sense of the wide range of responses to the World Heritage inscription of KKFC, including written statements by regional and national organizations representing indigenous peoples, as well as (i) the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, (ii) the Working Group on Enforced and Involuntary Disappearances, (iii) the Special Rapporteur on the situation of human rights defenders and (iv) the Special Rapporteur on the rights of indigenous peoples appointed by the United Nations Commission on Human Rights. States Parties to the Convention today are “encouraged to adopt a human-rights based approach, and ensure gender-balanced participation of a wide variety of stakeholders and rights-holders, including site managers, local and regional governments, local communities, indigenous peoples, non-governmental organizations (NGOs) and other interested parties and partners in the identification, nomination, management and protection processes of World Heritage properties” (OG Paragraph 12). Paragraph 14bis further encourages mainstreaming the “principles of the relevant policies adopted by the World Heritage Committee, the General Assembly of States Parties to the Convention and the UNESCO Governing Bodies”, including explicitly the UNESCO policy on engaging with indigenous peoples and “international human rights standards”. While it is thus clear that human rights concerns cannot be ignored in the

World Heritage arena, it is also clear that additional national and United Nations mechanisms are required to examine and do justice to the human rights dimension at stake in KKFC.

This report, respecting the decision that was taken by the World Heritage Committee, takes note of the State Party readiness to engage in dialogue and consider external technical advice in its above-mentioned “work in progress” towards full compliance with World Heritage requirements. Most importantly, the Advisory Mission offered an opportunity to jointly reflect on a complex and sensitive situation and the options to secure the best possible future for a protected area complex of global importance and the communities whose history and fate is in many ways linked to it.

The objective of the Advisory Mission was to assess the state of conservation and offer forward-looking recommendations on all issues listed in the annexed Terms of Reference, namely (a) the property’s boundaries; (b) the boundaries and management of the buffer zone; (c) the 2019 amendments to the National Park Act and Wildlife Conservation and Protection Act; (d) effective and inclusive participation of local communities and ethnic minorities in the management of the property; (e) the implications of the border setting; (f) the population status of key flora and fauna, monitoring mechanisms and connectivity conservation; and (g) impacts of existing and planned infrastructure development, including dams and roads.

For each thematic area, the full World Heritage documentation was taken into account, i.e. all statements by the State Party, the World Heritage Committee, public communications by relevant Special Rapporteurs and the IUCN in its capacity as an Advisory Body to the latter. Due to the overlapping nature of the various thematic areas, the thematic areas are slightly re-grouped in the subsequent chapter (findings).

As discussed and agreed with DNP during the mission, the liberty was taken to share additional overarching observations on KKFC and Thailand’s existing and prospective natural World Heritage properties beyond KKFC. The subsequent findings, conclusions and recommendations clearly distinguish between the specific scope of the Advisory Mission and additional observations and recommendations. The latter are nonetheless documented in this report as a courtesy among colleagues.

The mission on the ground was accompanied by experienced senior DNP staff and proved effective as an opportunity to openly discuss and document a wide range of issues and scenarios. As detailed in the annexed agenda, the mission met with a wide range of actors, including governmental and non-governmental organizations, scientists and Karen communities. The State Party readily respected that one sensitive meeting with community representatives was conducted confidentially without the participation of any governmental representatives. Additional colleagues were consulted in writing or by phone.

3. Findings

3.1 KKFC in the wider landscape

The official and public map (<https://whc.unesco.org/en/list/1461/documents/>) shows KKFC in isolation, unfortunately offering no information on the surroundings of the property. KKFC is an integral and particularly valuable element of a much larger transboundary landscape, which extends north to the Western Forest Complex (WEFCOM). There are countless villages next to KKFC’s boundaries surrounded by more or less intensely used agricultural areas and tree plantations. Across the border in Myanmar, the Taninthayi⁵ Forest Corridor deserves to be noted as a major element of the same contiguous forest block and one of several clear hints at the need for transboundary approaches and possible transboundary World Heritage potential. The

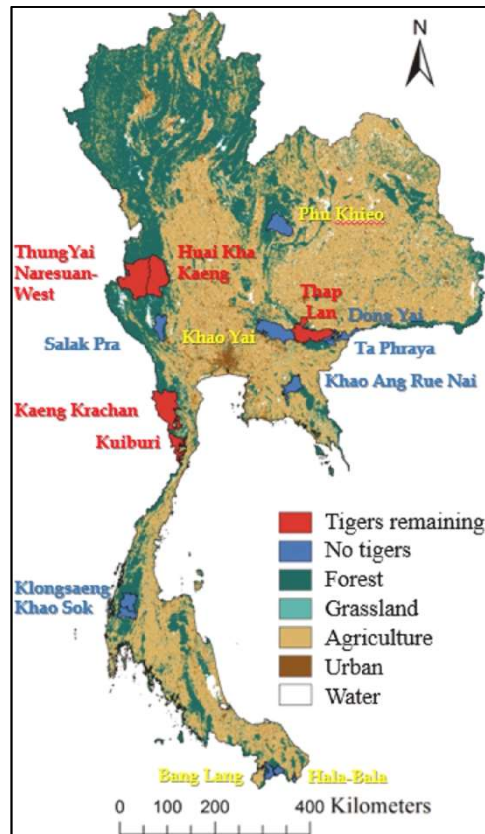
⁵ Please note that this report adopts the spelling at <https://whc.unesco.org/en/tentativelists/5876> even though ‘Tanintharyi’ is the common English language spelling of the corresponding region, river and forest corridor.

vast Taninthayi Forest Corridor, contiguous with KKFC as nationally designated in Thailand, was added to Myanmar's Tentative List in 2014 (<https://whc.unesco.org/en/tentativelists/5876/>).

From a conservation perspective, at least three features stand out in terms of the broader landscape of which KKFC is an integral part:

- Both KKFC and WEFCON (encompassing the Thungyai-Huay Kha Khaeng Wildlife Sanctuaries and World Heritage property or THKKWS) are consistently identified as being of global significance in global priority-settings. The fact that both forest complexes are functionally linked increases the significance of both properties;
- The connectivity between KKFC and WEFCON depends on land in both Thailand and Myanmar. The binational landscape, sometimes referred to as the Dawna Tenasserim Landscape (DTL) encompasses several million hectares of largely intact forests; priority-setting exercises consistently single out DTL as a major global conservation priority lending itself to a transboundary conservation approach;
- The connectivity between KKFC and WEFCON within Thailand is constrained by increasing development and fragmentation. While WCS and DNP (2009) identified restoration options in Thailand, their overall analysis is sobering. Since the time of publication, landscape connectivity has reportedly further decreased and there is concern over the impacts of additional transportation infrastructure planned. In particular, a major regional development corridor, which would cross the international border between WEFCON and KKFC as an eventual link to the coast of the Andaman Sea in Myanmar, could become a major barrier to most wildlife movements in both countries. This implies that the reportedly more intact forest corridor in Myanmar is increasingly decisive for the connectivity between KKFC and WEFCON even though it is also not immune to future fragmentation risks. Despite the political situation in Myanmar casting a shadow on tangible options in the foreseeable future, this adds to the strong case for transboundary conservation approaches, including potentially under the World Heritage Convention.

KKFC is in the favorable position of still being embedded in a much larger landscape of global conservation significance with an unusually high degree of naturalness. It cannot be overemphasized that the natural linkages between two of Thailand's most important conservations complexes, WEFCON and KKFC, are more effectively linked by forested mountains in Myanmar than by an increasingly fragmented landscape in Thailand. From a technical perspective, the consolidation of the transboundary efforts would be highly desirable.



Map 1: A basic overview of key forest complexes in Thailand.

Presence of tigers can reasonably be used as a proxy indicator for large and particularly valuable and intact areas. The full overlap between these areas and Thailand's natural World Heritage properties is conspicuous. It cannot be overemphasized that two of these only three key areas, WEFKOM and KKFC, are ecologically connected via forests in Myanmar and to a lesser degree in Thailand. **Source:** Suttidate et al. 2021. Generic map disclaimer applies.

From a global conservation perspective, the linkages to WEFKOM and the continuity of vast uninterrupted forests across the border is one factor setting apart KKFC. Maintaining existing connectivity and, to the degree possible, restore reduced connectivity by preventing linear infrastructure (roads, railroads, development corridors) and other barriers (e.g. fencing) from impeding wildlife movements and the mitigation of existing barriers become key conservation objectives.

As detailed in 3.7.1, the linkages between KKFC and WEFKOM should also be re-visited from a World Heritage perspective. At the transboundary level, eventual cooperation with Myanmar is undoubtedly desirable from a conservation perspective and comes with promising transboundary World Heritage potential in both cases. While currently not feasible, better times will hopefully enable a concrete dialogue towards structured transboundary conservation.

As a much more pragmatic recommendation, Thailand is encouraged to produce and use topographic and thematic maps showing features of the surroundings of KKFC, such as villages, roads and watercourses etc. Such context beyond protected area boundaries can be tools for analysis, planning and communication just as relevant as the maps of the protected areas themselves; they become indispensable when buffer zones come into play, as is the case in KKFC. Please note that the guidance for chapter 1.2 in the nomination format explicitly notes that the required maps should “allow the identification of topographic elements such as neighbouring settlements, buildings and routes in order to allow the clear assessment of the impact of any proposed development within, adjacent to, or on the boundary line”.

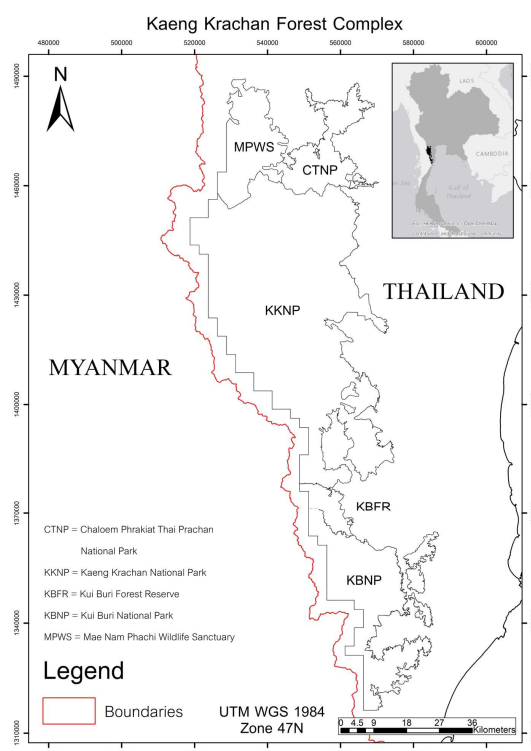
3.2 KKFC boundaries

3.2.1 Implications of the international border

Making sense of the area removed from the initially nominated World Heritage property

The State Party initially nominated KKFC all the way to the border between Thailand and Myanmar in line with the designation of the forest complex at the national level⁶ and IUCN evaluated the nomination accordingly. This approach is consistent with Thailand's approach to its other two natural World Heritage properties, which also share borders with neighboring countries and were nominated, evaluated and inscribed accordingly. THKKWS, namely the western boundary of Thung Yai Naresuan Wildlife Sanctuary, also shares a border with Myanmar. The situation would thereby appear to be directly comparable to KKFC.

While not identified as sensitive in the initial KKFC nomination dossier, the border location subsequently resulted in diplomatic exchange between the two involved governments. Bilateral meetings took place and a 'technical agreement' could be reached according to Decision 43 COM 8B.5 (Baku, 2019). As a result, the State Party of Thailand reduced the nominated area in two steps. Whereas the nomination in 2014 and its revision in 2016 had proposed 482,255 ha, the 2019 version was reduced to 411,912 ha. Eventually, the State Party communicated a nominated property of 408,940 ha, which is identical to the area inscribed in 2021. The difference between the initially nominated and evaluated property versus the eventually inscribed property thus amounts to 73,315 ha, a reduction slightly exceeding 15% and a substantial area by any standard in the realm of protected areas. World Heritage documentation in the public domain suggests that this proposal was acceptable to Myanmar.



Map 2: KKFC as inscribed on the World Heritage List in 2021.

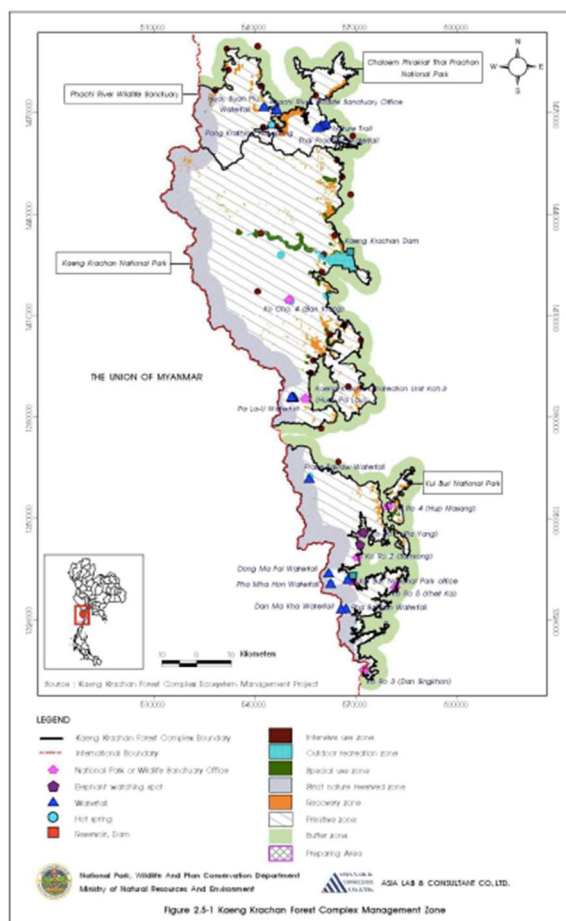
The red line shows the international border. Unlike KKFC as designated at the national level, the inscribed property is separated from the international border by a strip schematically defined by a distance of 2.5 km. **Source:** Courtesy of DNP. Generic map disclaimer applies.

⁶ Note that there are competing views on whether the inscribed area between Kui Buri National Park and Kaeng Krachan National Parks is formally part of KKFC as defined at the national level (see 3.2.3).

The official map of the inscribed property available at <https://whc.unesco.org/en/list/1461/maps/> does not show the international border or the discrepancy between KKFC as nationally designated versus the inscribed property. DNP explained during the mission that the excised strip was defined as a line running parallel to the border at an arbitrarily set distance. The modification of the boundaries of the nominated property followed consultations between Thailand and Myanmar on the border, but there is no indication that the excision was based on conservation considerations.

This considerably reduced size and configuration of the nominated property raised both technical and procedural questions, which could not be addressed prior to the inscription decision in the absence of an IUCN field evaluation. The boundary change was presented by the State Party as posing minor conservation implications, in its view not impacting on the nominated property's Outstanding Universal Value (OUV). IUCN in its most recent evaluation noted the significant reduction in the connectivity conservation functions of the nominated property and that the impacts of the revised boundaries would be in need for further consideration.

The conservation value of the area that was removed from the original boundary configuration is well documented. First, as shown in Map 3, the management plan zones the border area as a strict nature reserved zone, the strictest status within the entire forest complex.



Map 3: Management Zones of KKFC.

The area in light grey along the border overlapping with the area removed from the inscribed property is zoned as a strict nature reserved zone. Note that this map contained in the Management Plan does not show the military area between Kui Buri National Park and Kaeng Krachan National Park as an element of KKFC as nationally defined. **Source:** Screenshot by author from Management Plan 2008 – 2017. Generic map disclaimer applies.

Furthermore, the case for the disproportionate conservation importance of the area between the inscribed property and the boundary with Myanmar is supported as follows:

- The border area is the most remote area of the entire forest complex, has no infrastructure and was never subject to commercial logging unlike other parts of KKFC;
- Unlike along the entire eastern flank of KKFC, there is no encroachment and major land use change to the west of KKFC. While the possible edge effects from Myanmar are not known, it is very unlikely that the pressure is comparable to the pressure on KKFC stemming from developments in the surrounding landscape in Thailand. Based on conversations with DNP and readily available satellite images, it can reasonably be assumed that the forests in the mostly rugged terrain along the border must be among the least disturbed areas in the entire forest complex;
- As explicitly confirmed by wildlife experts consulted during the mission, the border area is particularly valuable for a wide range of species according to habitat mapping and wildlife monitoring;
- The removed area is precisely the physical link between KKFC and contiguous forests in Myanmar;
- The excision in the north of KKFC from also has implications for the linkages to WEFCOM, which are already compromised by increasing development;
- Finally, the excision must also be considered in the context of dam construction proposed within an area excised from the nominated property while still within Mae Nam Phachi Wildlife Sanctuary, as further discussed in 3.2.2.

For all these reasons, as the most intact part of the KKFC, the area removed from the original nomination is of disproportionately high conservation importance and makes a significant contribution to the property's OUV. The removed area continues to be an integral part of KKFC as defined and managed at the national level. The national legal status is unaffected by the World Heritage inscription and apparently acceptable to the neighbouring State Party. Furthermore, the excised area is for the most part not subject to any acute pressures. Nonetheless, an unhelpful discrepancy between the legal and management framework at the national level and the World Heritage approach, which could not be adequately considered in the independent IUCN evaluations, is now in place and continues to raise the same, so far unanswered questions.

Harmonizing the configuration of World Heritage property with the national framework in place for KKFC in line with the initial State Party nomination would be most desirable. It deserves to be emphasized that the State Party stated its position and readiness to eventually re-include the removed area in line with the initial nomination as follows: "(...) Whenever Myanmar has no concern about the country's border, Thailand will prompt to further submit the modification of KKFC to cover full area of the complex"⁷. This implies a State Party position which is fully compatible with the position this report adopts. For the time being, it is difficult to see real-life options to follow up as long as the bilateral diplomatic reasons underlying the removal of the area persist. Noting the conservation significance of the area between the inscribed property and the boundary with Myanmar, which IUCN considered would meet the criteria for inscription as a World Heritage property, it is recommended that the State Party expressly commit to manage and protect the area as if it were part of the inscribed property. There is also an option to declare the excised area part of a World Heritage buffer zone for the time being as further discussed in 3.3. This would be a temporary gesture of commitment to the area until a time when the full harmonization of KKFC and the inscribed property might become possible, ideally as part of a transboundary extension. It is impossible to predict if and when this might be the case in the future. Ideally, transboundary conservation could even be used a diplomatic instrument, an

⁷ Supplementary State Party information submitted on 23 January 2019, see <https://whc.unesco.org/en/list/1461/documents/>.

approach sometimes referred to as conservation diplomacy. This is further discussed in the subsequent section.

Connectivity and transboundary conservation opportunities

The transboundary setting comes with both challenges and (long term) opportunities. This was repeatedly specified by the World Heritage Committee as illustrated in the following excerpts from past decisions amounting to a consistent foundation for a transboundary conservation vision in the longer term (emphasis added) in addition to making reference to connectivity opportunities within Thailand. Importantly, the State Party of Thailand explicitly communicated the following in supplementary information officially submitted as part of the nomination effort on 23 January 2019 as follows: “Thailand is also ready and willing to cooperate with Myanmar to further develop a nomination of KKFC and Tanintharyi Forest Complex in Myanmar to be inscribed on the transboundary natural World Heritage List.”

Decision 44 COM 8B.7 (Fuzhou/Online meeting, 2021)

(...) decision to inscribe the property is made on the understanding that the State Party has addressed the issues raised in Decision 43 COM 8B.5 (...) and will continue the work in progress on the following issues: (...) mutual understanding on the revised boundaries of the property based on agreement between the States Parties of Thailand and Myanmar,

(...) encourages the State Party to identify opportunities to **collaborate with the State Party of Myanmar in transboundary conservation and management** (...), with a view to consider a **future extension of the property** (...).

Decision 43 COM 8B.5 (Baku, 2019)

(...) taking note of the technical agreement reached by the States Parties of Thailand and Myanmar on the delineation of the boundary of the nominated area based on the Technical Meeting between the two concerned States Parties held in Bangkok on 25 and 26 April 2019 (...) refers the nomination of Kaeng Krachan Forest Complex, Thailand, back to the State Party in order to allow it to (...) revise the boundaries of the property based on agreement between the States Parties of Thailand and Myanmar (...);

(...) encourages the States Parties of **Thailand and Myanmar to work in partnership on future** (...) **connectivity opportunities and collaborative efforts on conservation** (...);

Decision 40 COM 8B.11 (Istanbul, 2016)

(...) also encourages the State Party to continue the commendable initiatives on future biological connectivity opportunities, including those between the nominated property and Thungyai - Huai Kha Khaeng Wildlife Sanctuaries in Thailand and, working in partnership with the State Party of Myanmar, **between the nominated property and neighbouring transnational protected areas within the Taninthaya Forest Corridor in Myanmar** (...);

(...) recommends that the State Party continue dialogue with the State Party of Myanmar to address concerns regarding the settlement of demarcation of the proposed nominated area.

Decision 39 COM 8B.5 (Bonn, 2015)

“(...) also encourages the State Party to continue (...) initiatives (...) including those between the nominated property and Thungyai - Huai Kha Khaeng Wildlife Sanctuaries in Thailand and, working in partnership with the State Party of Myanmar, **between the nominated property and neighbouring transnational protected areas** (...)”

Textbox 1: Excerpts from past World Heritage Committee decisions highlighting opportunities in terms of landscape connectivity. Note that the Committee stressed and encouraged promotion of connectivity both within Thailand and across the international border in a joint effort with neighboring Myanmar (extension), while more recently also reflecting the sensitivity of the border. Chronological order starting with the most recent decision. **Source:** <https://whc.unesco.org/en/decisions>.

The spirit of the World Heritage Convention is international cooperation. Transboundary cooperation in shared ecosystems of global conservation significance epitomizes this spirit as a best-case scenario. The literature and technical opinions stated by DNP, NGOs and researchers during the mission leave no doubt about the major importance of transboundary conservation in the given setting. KKFC's setting lends itself to analysis of possible transboundary World Heritage options. The recommendation to explore transboundary World Heritage options permeates the World Heritage documentation for KKFC, including concrete encouragement by the State Party, IUCN and the World Heritage Committee. While this can only be a governmental vision for an undefined future point in time at this stage, it is important to prepare for any opportunities if and when they will arise.

As noted, all of Thailand's three natural World Heritage properties are located along international borders. While a joint consideration and an assessment of the situation in all three natural World Heritage properties are beyond the scope of this report, the State Party is well-advised to consider the parallels and, to the degree possible, develop approaches which are tailored to each setting yet coherent and consistent.

3.3.2 KKFC boundaries and proposed dam construction

As is the case in many countries, dam construction in Thailand regularly generates severe conflicts with both local communities and conservation objectives, the most extreme direct social impact of dam construction arguably being forced evictions. While proposed dam construction in Dong Phrayayen-Khao-Yai Forest Complex (see <https://whc.unesco.org/en/decisions/7813>) is beyond the scope of this report, it is helpful to be aware of a parallel World Heritage debate on proposed dam construction, also to ensure consistent consideration by all involved.

It is interesting to note in this context that the history of KKFC is partially associated with the massive Kaeng Krachan dam and reservoir on the Phetchaburi River, a major project fully dependent on the vast upper watershed of that major river. Watershed protection was the concrete incentive underpinning the creation of KKNP in 1981. According to the nomination dossier, there were concerns that commercial logging in what is today KKNP would jeopardize water supply to the Kaeng Krachan reservoir. Preference was therefore given to conservation over logging, according to the nomination dossier upon His Majesty King Rama IX.

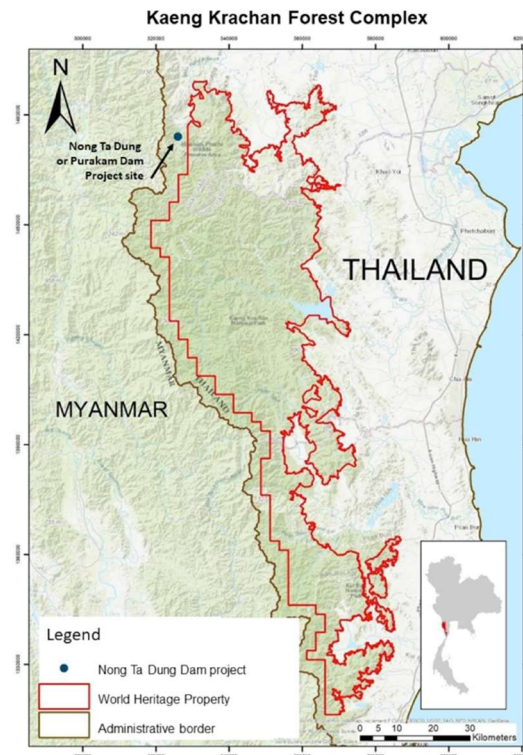
The dam project on the Lam Pachi River in KKFC under consideration today was first proposed in 1991. Documented opposition dates back to at least 2012 when the then Head of Tanaosri Subdistrict Administrative Organization sent an objection letter to the Royal Irrigation Department (RID). The project is named Nong Ta Dang and sometimes also referred to as the Purakam Project. These names are borrowed from the two Karen communities in the same locations.

The project is developed by RID under the Ministry of Agriculture and Cooperatives (MOAC). The stated objectives are to (i) store water for crop irrigation in the dry season to facilitate the cultivation of vegetables and sugar cane and (ii) flood control in the middle and lower basin of the Lam Pachi River. Some consulted during the mission called into question whether the project can technically control flooding of vast downstream areas on the grounds that the Lam Pachi River was too small a small sub-basin within a much larger overall hydrological dynamic. A RID representative further noted the objective to control downstream erosion during the mission. Allegations that a tourism resort project might be the key beneficiary of the project were noted during the mission, but could neither be verified nor rejected within the scope of this report. The project consists of a dam, reservoir, and associated irrigation systems and access infrastructure. According to DNP, the Environmental Impact Assessment (EIA) dated 2019 assumes a reservoir area of some 336 ha.

The dam is proposed within a nationally designated protected area, Mae Nam Phachi Wildlife Sanctuary (MNPWS), established in 1978 as the first protected area of what is today KKFC.

While this could not be clarified conclusively, it seems that project implementation would require DNP to change the boundaries of the wildlife sanctuary. The siting of the project is further complicated by several noteworthy factors:

- As illustrated in the below map, the dam would technically be outside of the inscribed property. However, this is only the case because the originally nominated property was reduced in size through the removal of the border area;
- The proposed project location is also not within the buffer zone of the inscribed property for the simple reason that a formally defined buffer zone is so far missing, as further discussed in sub-chapter 3.3;
- If approved, the project may set precedent for other future development proposals in or near protected areas, including possibly natural World Heritage properties;
- The dam and reservoir would be located in a strategic location in terms of connectivity to both the north (WEFCOM) and the west (Myanmar). The project is strikingly at odds with the well-documented conservation rationale underpinning KKFC and stated objectives to maintain connectivity between KKFC and WEFCOM and to engage in transboundary conservation. This includes in particular reported efforts to extend KKFC to the north by granting current forest reserves status as non-hunting areas;
- As far as can be judged from a brief visit, the majority of the members of local Karen communities, some 86 households in Ban Nong Ta Dang and Ban Purakam, vehemently oppose dam construction. It is important to understand that Ban Purakam owes its foundation to earlier involuntary resettlements, including from Ban Bang Kloy, as also discussed in 3.7;
- Unlike in the earlier stages of project development, recently enacted wildlife legislation clearly strengthens the position of communities, i.e. the debate now coincides with a revised legal framework since 2019 meant to mark a new beginning in terms of communities and wildlife sanctuaries;
- A survey by the Seub Nakasatien Foundation found high conservation values in the proposed reservoir area, in particular in terms of freshwater biodiversity, endemic species and water quality.



Map 4: Location of the proposed dam construction in Mae Nam Phachi Wildlife Sanctuary, KKFC.

Source: Courtesy of DNP. Generic map disclaimer applies.

A site visit combined with a community meeting confirmed strong local opposition to the project proposal. Karen representatives explained that it took the community many years to adjust to the new location for their housing and fields following earlier forced eviction from other locations in KKFC. Therefore, community representatives also described a possible second resettlement as a broken promise. Moreover, villagers described the land proposed as an alternative as inferior, less fertile, less attractive and even vulnerable to other development plans. A handwritten letter summarizing the concerns signed by 343 community members was handed over to the mission, see Annex 7 for an unofficial translation. According to the letter the entire Purakam Community and “part of Nong Ta Dang Community” firmly reject the project.

It was further explained in the community meeting that the local relationship with DNP and local authorities otherwise evolved positively over time based on collaborative conservation efforts, e.g. regarding patrolling and fire prevention. Ban Purakam even serves as a pilot village and won prestigious awards in this context. Pride was also expressed about projects promoting environmentally friendly agriculture. For these reasons, the Ban Purakam community expects to benefit from further support by the UNDP’s Small Grants Programme and Seub Nakasatien Foundation, which jointly promote sustainable landscape management.

Environmental impacts of the dam construction on KKFC would include, perhaps most obviously, the loss of forest and wildlife habitats in the reservoir area. As is generally the case with dam construction, further environmental impacts can reasonably be assumed, including disturbance and other direct and indirect impacts stemming from large-scale construction; degradation of the aquatic and riparian ecosystems and habitats; and additional landscape fragmentation, which is already a key concern for the wider KKFC landscape. As importantly, dam construction is a recipe for a predictable confrontation with Karen communities in a place where relationships appear to have developed positively in many ways and at a point in time when new legislation comes with the hope of reconciliation of well-documented comparable conflicts in the past. Deep

frustration was locally expressed that a promising path toward reconciliation might come to an abrupt halt.

The EIA for the project was approved by the Office of Natural Resources and Environmental Policy and Planning (ONEP) and submitted to the National Environmental Board (NEB) in 2017. Rather than approving the EIA, NEB recommended revision with a focus on community consultations, clarification of land allocation and more profound wildlife surveys.

Visits to the area by Advisors to the Office of the Prime Minister in 2020 and the Human Rights Commission in 2022 indicate that the situation is on national political radars. Locally held meetings involving RID and other agencies in 2022 reportedly aimed at finding workable solutions. At the time of the mission, the EIA was still under review by NEB. No exact or assumed future timelines of further decision-making were communicated to the mission.

The substantial financial investment in construction, operation and maintenance has to be weighed not only against a realistic assessment of the expected economic benefits. The State Party is well-advised to engage in a comprehensive assessment fully taking into account World Heritage status, including the unusual prior excision of the border area under consideration from the initially nominated and evaluated property. The location is highly sensitive, as construction would undoubtedly compromise the options to (i) eventually incorporate the area excised from the initially nominated property again in the future; (ii) create the formally required currently missing buffer zone; (iii) maintain and restore the connectivity between KKFC and WEFCOM, and (iv) maintain the link to Myanmar, including a candidate site on the neighboring country's Tentative List. Additional costs, including external environmental, social and socio-economic effects, but also avoidable tensions and conflicts, negative visibility etc. are further factors in the equation.

The undoubtedly high external costs make it unlikely that the project is justifiable, also in light of new conservation legislation granting previously non-existing rights to communities, and commitments under UNDRIP. There could be preferable alternatives to the project, i.e. more cost-effective options to achieve the desired results. Concretely, some observers suggested that enhancement of the existing check dams in the basin might deliver the desired effects in terms of flood control without additional dam construction.

Importantly, the World Heritage dimension is only starting to enter the stage after years of debate about the benefits and costs of the project. There is no assessment whatsoever of the impacts of the project on KKFC as inscribed on the World Heritage List. This is an information gap to be addressed in line with basic World Heritage requirements Thailand has committed itself to as a State Party to the Convention. A more in-depth assessment, specifically considering the World Heritage status is necessary in the near future. Any approach would ideally operate at a scale beyond the individual project, e.g. in the form of a Strategic Environmental Assessment (SEA). The latter approach was taken for Dong Phrayayen-Khao Yai Forest Complex and it deserves to be discussed whether a comparable – and consistent - approach might be beneficial also for KKFC. A Strategic Environmental Assessment for the Mea Klong River in Thai language apparently dated May 2022 was mentioned to the mission. While beyond the scope of this mission, it should be noted that such an SEA would encompass the Lam Pachi River sub-basin; it is possible that this SEA may also come with implications for the Nong Ta Dang project. The apparently existing SEA should therefore be revisited, also to consider whether the World Heritage status of KKFC was adequately considered.

Despite the excision from the World Heritage property, it should not be forgotten that the proposed dam project would also occur within a nationally designated wildlife sanctuary fully within KKFC as nationally designated. Comparable debates elsewhere in protected areas in Thailand were reported to the mission. Thailand will have to come to terms with the broader question whether dam construction in public protected areas conflicting with both conservation

and societal reconciliation objectives can or should be a legal option at all. The project under consideration here is thereby both a local issue and part of a much broader national policy question. Ideally, the case could be used as a pilot to do justice to the complexity at hand beyond standard technical, economic and environmental impact questions.

All the ingredients of a high-profile conflict in the making appear to be in place. While technically outside of the inscribed property, the area that would be flooded and the even larger area that would be affected by the project was deemed worthy of World Heritage status by the State Party at the time of initial nomination. As described below, there is a need for the State Party to define a World Heritage buffer zone, which will inevitably also involve a discussion of the proposed dam and reservoir area. The project location is also of strategic importance in terms of wildlife movements and other linkages between KKFC, Myanmar and WEFCOM as consistently noted by IUCN and the World Heritage Committee.

It is clear that the proposed project has a – so far neglected - World Heritage dimension among many other dimensions. The project would clearly be incompatible with World Heritage status if it were in the inscribed property. The dam and reservoir would still be located in the wildlife sanctuary and in KKFC as nationally defined by law and is part of the very logic and conservation significance of KKFC. It is highly likely that the project would impact on the conservation values and integrity and thereby the OUV of the property.

In summary, strong doubts remain about the wisdom of risking a predictable local confrontation with Karen communities at a time when Thailand is attempting to come to terms with a legacy of severe conflicts following decades of unresolved overlap between communities and protected area legally excluding any human occupancy. The added visibility of the World Heritage arena does not make the prospect more attractive at a time when full compliance with several other World Heritage requirements and expectations continues to be “work in progress” in the wording of the intergovernmental World Heritage Committee.

It is strongly recommended that the State Party carefully assess the project in light of the World Heritage status since 2021 and consider a no-project scenario as a possible outcome. There could be more attractive alternative options to achieve the objectives of the project without comparable consequences in terms of conflicts with local communities, World Heritage implications and conservation objectives more broadly.

3.2.3 The (missing?) link between KKNP and KBNP

A superficial look suggests that KKFC consists of five contiguous units. A closer look reveals two main observations. The first one has limited implications in this particular case but nonetheless deserves to be documented. As defined nationally and as inscribed on the World Heritage List, Kui Buri National Park (KBNP) is not one contiguous area. Instead, the park encompasses several disjunct areas or component parts in World Heritage terminology. For this reason alone, KKFC is by definition a serial World Heritage property, which does not seem to have attracted much attention. A simple search suggests that neither the nomination nor the IUCN evaluation make any reference to this fact. As further discussed in the subsequent sub-chapters 3.2.4 and 3.3, however, the procedural implications are considered secondary to other applicable coordination requirements in the case of KKFC.

More importantly, while three KKFC areas enjoy adequate protection status as national parks and one as a wildlife sanctuary, respectively, the status of the area located between KKNP and KBNP along the border with Myanmar is vaguely described only even in key World Heritage documentation despite its inclusion in the inscribed property. At the same time, researchers consulted during the mission suggested important conservation values, both in terms of the connectivity functions and wildlife inside the gap area.

Variably referred to as a “Forest Reserve” or “Ecological Corridor” in World Heritage documentation and maps, the area is listed as “Kui Buri Reserve under military control” in the IUCN evaluation. According to the nomination dossier, Kui Buri is both a “Forest Reserve” and an “Army Reserve Zone” and thereby subject to both the Forest Reserve Act (1964) and the Military Reserve Zone Act (1935), while also referring to it as a “corridor area” according to its function rather than its land use designation. For pragmatic reasons, the area is hereafter referred to as KBFR.

Other maps refer to the same area simply as a “Military Area”. It is conspicuous that many readily available maps of KKFC in fact show a gap between KKNP and KBNP, suggesting that KBFR may not even be a formal component of the forest complex as defined at the national level. Unlike status as national park or wildlife sanctuary, the legal status of a forest reserve does not per se amount to a protected area designation. In fact, a forest reserve may not even be forested; the de facto status of forest reserves can range from actual forest to agricultural areas and even villages. Similar to Thailand’s typically inhabited protected areas, several millions of people apparently live in forest reserves; settlements in most cases predated the declaration of forest reserves.

This implies a serious question mark in terms of both the exact legal and the de facto status of KBFR despite its inscription on the World Heritage List according to the official map available at <https://whc.unesco.org/en/list/1461/maps/>. KBFR emerges as an area without an obvious conservation designation. Despite its comparatively small overall size, the area under consideration is the main link between KKNP and KBNP in the territory of Thailand and thus of major importance. The area where KBFR shares a border with Myanmar is of particular concern due to its function in terms of transboundary connectivity.

Consultations during the mission were not fully conclusive but could shed some light on the situation:

- It was confirmed that the area is indeed fully or partially a legally designated forest reserve, implying that both Thailand’s Royal Forestry Department and the Royal Thai Armed Forces have roles in its management;
- Environmental considerations, such as watershed protection, were described as part of the management obligations governing forest reserves;
- In addition to the forest reserve status, the area is wholly or partially used as a military training ground;
- The ecological importance and role of the area within the forest complex was fully understood and confirmed by DNP and representatives of conservation NGOs.

The lack of clarity is not a new discovery and is in fact acknowledged in the nomination dossier. As was explained by DNP during the mission, years of debate have resulted in the identification of available options and DNP reported efforts to pursue some of them. Proposed scenarios discussed during the mission and already mentioned in the initial nomination dossier include:

- Expansion of Kui Buri National Park so as to encompass the current KBFR. Apparently, an advanced proposal exists and even entered the political and administrative process but appears to be on ice at this stage;
- Designation of KBFR as a Non-Hunting Wildlife Area according to section 66 under new wildlife legislation in vigor since 2019, consistently described as “more realistic” compared to the designation of a Wildlife Sanctuary in this location;

- Development and Management of KBFR as an “other effective area-based conservation measure” under co-management by the Thai Army and DNP building upon existing conservation obligations in forest reserves and based on an MoU clearly defining objectives, roles and working modes.

To conclude, the identification of the KBFR as a critically important yet “grey” area within KKFC is important. KBFR requires follow-up, as it was inscribed on the World Heritage as an integral part of KKFC in the absence of clarity in terms of values, integrity and basic management and protection in place. In fact, it was inscribed even though it is not clear whether it is even formally a component of KKFC as nationally designated and defined. There is a need to establish clarity and ensure adequate management of the area in line with World Heritage requirements. It is for the State Party to determine which ones of the already identified avenues it considers feasible and preferable or whether there may even be additional options. The eventual yardstick will be currently unclear compliance with World Heritage requirements.

3.2.4 KKFC as a serial property

In the wording of Paragraph 137 of the OGs, the basic definition of a serial nomination or property is that it contains “two or more component parts”. Even though the term is hardly used in official World Heritage documentation for KKFC, the nomination dossier and maps therein unambiguously identify KKFC as a serial property. This is confirmed in the initial nomination dossier, which notes two “disconnected areas in the southwest corner at Kui Buri National Park”.

Serial World Heritage approaches come with defined implications. Importantly, coordinated management of the disjunct components is required. In the case of KKFC, however, this is a major requirement anyway because its composition of multiple protected areas comes with a need for overall coordination beyond units in the first place. Therefore, the implications of the situation in KBNP can and should be integrated into the management of KBNP and the broader management at the level of the forest complex discussed below. Thereby, compliance with Paragraph 114 of the OGs specifying that “management systems or mechanisms for ensuring the coordinated management of the separate components are essential and should be documented in the nomination” can be achieved under the broader imperative to ensure a coherent and effective approach to the entire forest complex.

A best-case scenario would be to merge and link the various components of KBNP in order to have one contiguous national park area. In real life, this is likely to be impossible due to human occupancy and intense land use in the very areas between the various units of KBNP. Therefore, the most promising scenario to manage the ecological linkages between the various components of KBNP is to declare all of the land between KBNP’s various components as part of the buffer zone and determine the conditions of human use so as to avoid negative impacts on the property’s OUV. Such a buffer zone approach is in line with the initial State Party proposal, which for unclear reasons was not reflected in the inscription decision, as detailed in the subsequent sub-chapter.

3.3 Towards an effective buffer zone

Other than under exceptional circumstances to be explained by the nominating State Party, buffer zones are a standard requirement for any World Heritage property. To set the stage, it was considered helpful to recall the formal World Heritage requirements detailed in paragraphs 103-107 of the Operational Guidelines. For ease of reference, these key paragraphs are presented in Textbox 2 (emphasis added).

103. **Wherever necessary** for the proper protection of the property, an adequate buffer zone should be provided.

104. For the purposes of effective protection of the nominated property, a buffer zone is an area surrounding the nominated property which has **complementary legal and/or customary**

restrictions placed on its use and development in order to give an added layer of protection to the property. This should include the **immediate setting** of the nominated property, **important views and other areas or attributes that are functionally important as a support to the property and its protection.** The area constituting the buffer zone should be **determined in each case through appropriate mechanisms.** Details on the size, characteristics and authorized uses of a buffer zone, as well as a map indicating the precise boundaries of the property and its buffer zone, should be provided in the nomination.

105. A **clear explanation of how the buffer zone protects the property** should also be provided.

106. Where no buffer zone is proposed, the nomination should include a **statement as to why a buffer zone is not required.**

107. Although buffer zones are not part of the nominated property, any modifications to **or creation of buffer zones subsequent to inscription of a property on the World Heritage List should be approved by the World Heritage Committee using the procedure for a minor boundary modification** (see paragraph 164 and Annex 11). The creation of buffer zones subsequent to inscription is normally considered to be a minor boundary modification.

Textbox 2: Key paragraphs referring to buffer zones in the Operational Guidelines.

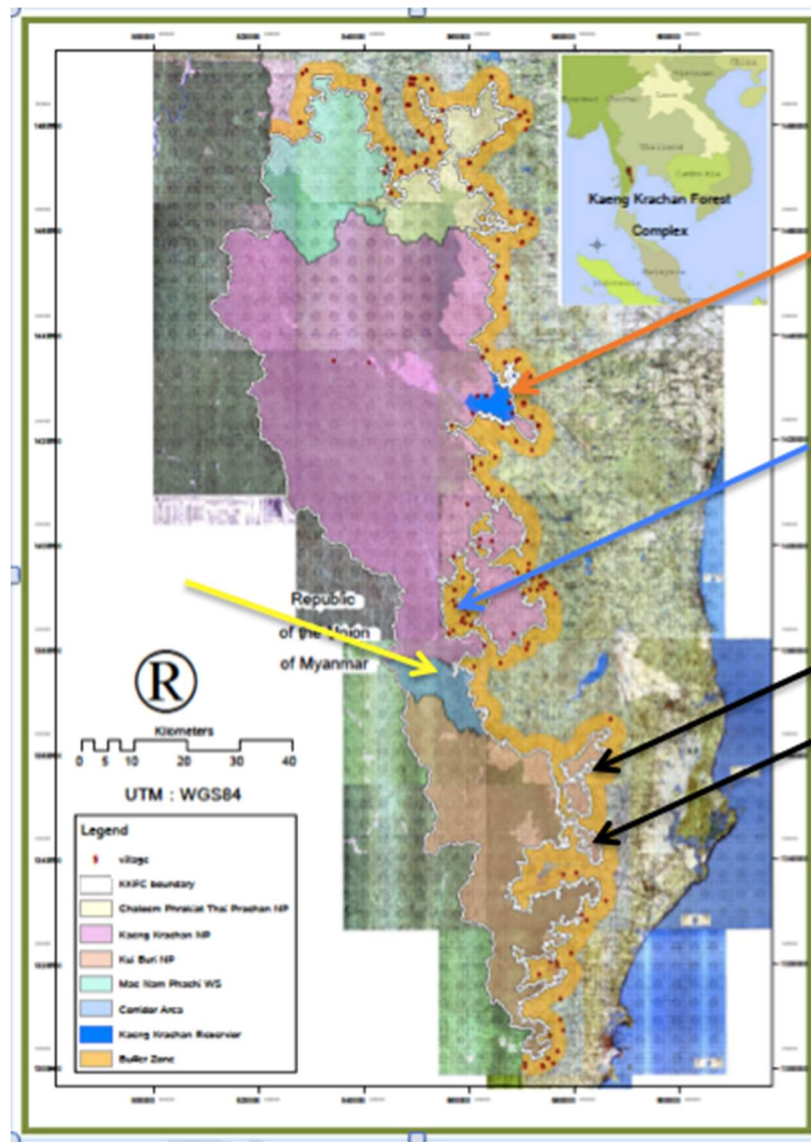
Source: <https://whc.unesco.org/en/guidelines/>.

See also https://whc.unesco.org/en/compendium/action=list&id_faq_themes=1528.

It becomes clear that the rationale and requirements for World Heritage buffer zones are in principle straightforward. Buffer zones have the objective to add a spatial layer of protection around any (nominated) property. It also becomes clear that a buffer zone does not necessarily require a formal legal basis, but can be based on ‘appropriate mechanisms’ tailored to a given setting. In other words, areas can be defined and managed as functional buffer zones even in the absence of a legal basis for formal buffer zones in a given country.

It is fair to state that buffer zones have not always attracted the attention they deserve. In recognition of the somewhat neglected past consideration of buffer zones and often increasing external pressures on World Heritage properties, the World Heritage Committee recently reaffirmed “the increasing importance of effective buffer zones to support the protection and management of Outstanding Universal Value (OUV) and building greater resilience of properties to external threats” (Decision 44 COM 7.2, see <https://whc.unesco.org/en/decisions/7678/>).

Testing the above requirements against KKFC as inscribed on the World Heritage List reveals a definite need for follow-up. Thailand’s initial nomination dossier included a proposal for a buffer zone exceeding an impressive total area of 240,000 ha. According to the nomination dossier, the buffer zone was “dragged 3 kilometers outwards along the boundary of the whole nominated property except the east side which is the border between Thailand and Myanmar.” The nomination further notes some 51,000 inhabitants citing 2007 data generated by the Community Development Department (CDD) under the Ministry of Interior of Thailand. The below map visualizes the initially proposed buffer zone and the numerous villages within it.



Map 5: Initial buffer zone proposed by the State Party.

Orange arrow: the buffer zone surrounds part of the large Kaeng Krachan reservoir which is situated within the inscribed property in its entirety.

Blue arrow: the buffer zone encompasses an enclave within Kaeng Krachan National Park (KKNP) containing several villages.

Black arrows: the buffer zone encompasses all of the land separating the disjunct units of Kui Buri National Park (KBNP).

Yellow arrow: the area between KKNP and KBNP, referred to here as an “Ecological Corridor” is likewise protected by the buffer zone along all of KKFC with the exception of the border with Myanmar.

Source: Nomination dossier submitted by the State Party in 2014, available at <https://whc.unesco.org/en/list/1461/documents/>. Colored arrows added by author to highlight multiple particularities deserving attention. Generic disclaimer applies.

Furthermore, Map 5 visualizes several relevant pieces of information missing in the official World Heritage map. Most strikingly, most of the property is surrounded by intensely used agricultural land and a large number of villages is located in immediate vicinity to KKFC to the north, east and south. Such a setting strongly indicates the need for a buffer zone, also in light of the well-known human-wildlife conflicts (HWC). The many villages in the small enclave within KKNP (blue arrow) offer hints at particularly high pressure and high likelihood of HWC in this location, as could be confirmed during the mission.

While the OG acknowledge the possibility that some settings may not require buffer zones, it is clear that KKFC is not one of those settings. Rather than providing any hints at a justification for not having a buffer zone due to particular circumstances, KKFC requires a functional buffer zone to avoid “hard boundaries”, i.e. a direct encounter of protected areas with land managed without any conservation considerations. KKFC is a striking example of a protected area located next to increasingly intensive land use and multiple linkages between the protected areas and their surroundings. This interface includes, but is not limited to, proposed dam construction in the immediate vicinity of the property, intensifying agriculture, tourism and severe human-elephant conflict around large parts of the eastern boundary of KKFC. A look into the management plan suggests that a buffer zone is defined or at least proposed for KKFC. The specific recommendation is made in the management plan that DNP and the Royal Forest Department cooperate in the buffer zones and clarify each agency’s roles and responsibilities.

Despite the striking need for a buffer zone and a detailed initial proposal for a buffer zone, KKFC was inscribed in 2021 in the absence of a defined World Heritage buffer zone. The exact reasons could not be clarified during the mission. It is clear though that there is a mismatch between basic World Heritage requirements and the parameters of the inscription in this regard.

To conclude, a World Heritage buffer zone needs to be defined in order to comply with basic World Heritage requirements. Rather than an obligation or imposition, the determination of a buffer zone should be seen as an opportunity to address well-known challenges and needs. The OG do not prescribe any methodology underpinning the determination and management of a buffer zone, but define its objectives and functions. Like any other State Party Thailand is to identify its own way tailored to the situation on the ground around KKFC. The following considerations are offered to contribute to the discussion:

- While buffer zones are a standard World Heritage requirement, they are explicitly not part of a nominated or inscribed property itself;
- It is common that States Parties have no directly applicable legal basis for the creation of formal buffer zones. If so, many other elements of the legal and policy framework (environmental management, impact assessments etc.) can and should be used or developed to determine an area serving as a functional buffer zone;
- A buffer zone simplistically defined by its distance to a protected area boundary, as was the case in the initial nomination dossier, is discouraged. Whenever possible, the buffer zone should be defined by the specific needs or opportunities in the given location. For example, the many forest reserves directly adjacent to most of KKFC’s eastern boundary deserve analysis as potential buffer zones, as the existing status already comes with certain conservation obligations according to DNP representatives. In other cases, existing administrative boundaries might lend themselves to use as buffer zone boundaries. Elsewhere, natural landscape features such as watercourses can serve as boundaries, which are easy to communicate locally;
- Human-wildlife conflict (HWC) is another example for the limits of schematic lines drawn around protected areas. Effectively addressing HWC must be tailored to the area where it occurs or is anticipated in the future; the State Party is well-advised to fully consider HWC in its spatial buffer zone configuration;
- Every effort should be made to integrate conservation considerations in land use planning and regional development, including but not limited to, Environmental Impact Assessments and possibly Strategic Environmental Assessments in order to move beyond isolated consideration of individual projects, which cannot capture cumulative impacts.

It is recommended that the State Party develop a pragmatic approach and methodology to underpin the development of a buffer zone for KKFC adapted to the reality on the ground. This would put to rest the use of an imaginary line at a certain, somewhat arbitrary distance to KKFC

proposed in the initial nomination. While the excised border area is an integral and particularly valuable part of KKFC, which should be managed as such, temporary inclusion of the border area as a World Heritage buffer zone would be a strong gesture and would establish a currently missing World Heritage link to this important area.

Eventually, the buffer zone can and should be formalized via the straightforward procedure of a so-called Minor Boundary Modification specified in paragraphs 107 and 164 (see also Annex 11 of the OG). The State Party is encouraged to communicate such intentions to the World Heritage Committee before the submission of a Minor Boundary Modification in line with applicable procedures. The State Party may wish to take advantage of the effort to inform coherent buffer zone development elsewhere, including around its further two natural World Heritage properties and any natural World Heritage nominations Thailand may consider submitting in the future.

3.4 Overarching coordination and management of the Forest Complex

An assessment of the management effectiveness of KKFC or individual protected areas therein is obviously beyond the scope of this report. Nonetheless, it was considered helpful to document corresponding discussions during the mission as food for thought.

As noted, Thailand's approach to nominate conservation complexes rather than individual protected areas is exemplary. This approach can and should facilitate management beyond the level and scale of individual protected areas. At the level of the four protected areas jointly forming KKFC, management is in place in line with applicable standard procedures. Two important factors deserve to be noted. First, the recent legal changes predating the World Heritage inscription come with profound implications for the future management of all national parks and wildlife sanctuaries and thereby also forest complexes in terms of the role of communities. The debate is in its infancy and further discussed in sub-chapter 3.6. Second, it remains unclear whether the area inscribed between KKNP and KBNP, variably referred to as the "ecological corridor" or the Kui Buri Forest Reserve has adequate legal status or management in place at all, as discussed above in 3.2.3. Consequently, it is not even clear how any effective inclusion of KBFR within a coordinated approach to KKFC can be achieved at all at this point.

The individual protected area offices focus on single protected areas within KKFC in line with their mandate. For many reasons, this is insufficient to guarantee the effectiveness of the overall management of the forest complex because many challenges are shared by several or all units of KKFC and thus benefit from a coherent approach to monitoring, management and law enforcement etc. For example, wildlife populations ranging across and beyond the various units of KKFC cannot be satisfactorily monitored or managed in the absence of communication, coordination and cooperation among the multiple units of the complex and with actors outside of the complex.

The following levels benefitting from coordinated approaches can be distinguished:

International level

The wider transboundary forest block, referred to by WWF and others as the Tenasserim Corridor, lends itself as a spatial framework, including from a World Heritage perspective. Eventually, if and when politically feasible, some sort of coordination mechanism between the two involved governments would be highly desirable.

National level

At the national level, two dimensions beyond KKFC and its buffer zone stand out from a conservation and management perspective. First, it is recommended to work towards coherent and coordinated analysis of, and guidance for, all of the State Party's three natural World Heritage properties due to similarities in terms of settings, conservation values and challenges. Second, the part of the Tenasserim Corridor within the territory of Thailand is highly relevant spatial unit of consideration. Maintaining and restoring the vanishing linkages between

WEFCOM and KKFC on the Thai side via coordination with relevant sectors and actors will add value to both forest complexes and thereby two of Thailand's natural World Heritage estate.

Coordinating KKFC and its buffer zone

In order to add value to the forest complex approach, management coordination is needed beyond the level of the various individual protected areas. The buffer zone adds complexity, as its management also requires coordination at the level of KKFC, i.e. beyond each individual protected area. Many additional actors and sectors come into play in the surroundings of the property. Rather than playing the central role, DNP is one of several governmental actors only in the buffer zone with a very limited mandate compared to its leadership in the management of KKFC.

At this point in time, coordination among the various protected areas forming KKFC primarily appears to be achieved based on personal efforts according to perceived needs. The individual protected areas report to two distinct regional offices, which in turn reported to "regularly meet or communicate as needed".

It is recommended to move towards more structured overall coordination mechanisms covering the entire forest complex, also addressing overarching issues beyond the complex itself, notably including the future buffer zone. Such an overarching management level would require a mechanism ensuring an adequate mandate, working mode, consultations and some sort of accompanying advisory body.

Planning should be guided by a flexible overarching planning document for the entire KKFC. Rather than the detailed planning required for the individual protected areas, the overarching plan should identify and offer guidance on strategic issues, such as landscape connectivity, land use changes and offer corresponding guidance. Other issues to be addressed include, but are not limited to, joint overall monitoring, shared databases and joint wildlife monitoring and management, including human-wildlife conflicts.

Once more, one question to be tackled by this level of coordination is the land under military control linking KKNP and KBNP. Monitoring and management of this important piece of land should eventually be fully coordinated with the monitoring and management of KKFC in line with conservation objectives. Regrettably, it is far from clear whether this is currently the case.

DNP reported that a new and budgeted management cycle would start in 2023, which could be used to engage in new thinking on overall management and both coordination structures and the best possible guidance at the level of KKFC.

Individual units of KKFC

This is the most obvious level at which management routinely occurs. With the noted exception of the military-controlled KBFR area between KKNP and KBNP, adequate management structures appear to be in place. The main question marks in the foreseeable future are likely to center on the implications of new legislation, local human-wildlife conflicts, tourism and land use changes in the surrounding landscape.

The evolving legal frameworks for national parks and wildlife sanctuaries imply that all of the above levels will have to move towards more meaningful participation mechanisms. If enforced, the development of more participatory management mechanisms involving local communities in line with key laws dated 2019 - but also other laws that are increasingly open to community involvement - will be a defining feature of future management and governance (involvement in decision-making). Doing justice to the new laws is likely to come with a need to re-visit the existing Protected Area Committees (PAC) regarding composition, working modes, information-sharing and mandate etc., as well as negotiated resource use agreements. Other thinkable elements might include grievance mechanisms or ombudsmen.

Beyond PAC for individual protected areas, a comparable participatory mechanism should be conceived at the level of overall management of KKFC, an idea which some referred to as the creation of a “Super-PAC”. Lessons from the Dong Phrayayen- Khao Yai World Heritage PAC can and should be fully taken into account. Such a body operating at the landscape level would encompass all four protected areas plus KBFR and at least the entire buffer zone around KKFC to be established. Within this landscape, numerous forest reserves, community forests, existing and proposed Non-Hunting Wildlife Areas play a role, as well as a Community Land Allocation (Kor Tor Chor) under the National Land Policy Board.

3.5 Wildlife and habitat management

KKFC supports important populations of wide-ranging large mammals. The population ranges are by no means restricted to individual protected areas, KKFC or even Thailand. Many large mammal species move within the forest complex and its surroundings, including across the international border, several species cause major and human-wildlife conflict (HWC). Typical conflicts with large herbivores stem from crop damage, often dramatically affecting local livelihoods. Collisions and other accidents are further concerns, potentially lethal for all involved. Another classic line of conflict is livestock predation, regularly resulting in retaliation killings of predator species. Besides large predators and herbivores, DNP reported HWC involving wild boar, deer crops, porcupine, birds and small mammalian predators.

According to DNP and wildlife specialists met during the mission - and broadly speaking - KKFC finds itself in a period of recovering wildlife populations due to more effective law enforcement. This trend coincides with increasing agricultural and other development in the surroundings of KKFC. This explains the intensity of HWC and implies that more intense HWC is on the horizon; i.e. stronger responses and investment are likely to be needed in the future. In the particular case of tigers, the current situation is not of concern as the presence of tiger is very limited and only known because of rare sightings or camera trapping in more or less remote locations. Should there be a recovery of tiger numbers in KKFC in the future as a result of the larger Tenasserim Corridor initiative, then this would trigger a need to integrate this species in the management of HWC in KKFC and its surroundings.

The arguably most prominent conflict surrounding KKFC is between elephants and humans. This well-known conflict has so many particularities that it is often framed as a subset of HWC, human-elephant conflict (HEC). Several factors come together in and around KKFC. Most of the lowland forests, the prime habitat of Asian elephants, have been lost, fragmented and degraded pushing elephants to the higher elevations of protected forests, such as KKFC. Nonetheless, elephants continue to be drawn to the lowlands, also attracted by expanding crop cultivation, including particularly attractive high-sugar crops. There are many ways to go about HEC, including a mix of fencing or other barriers or deterrents, permanent real-time monitoring, rapid response teams, compensation payments, subsidies to influence crop selection by farmers etc. Another option is habitat management in the broadest sense, i.e. increasing or reducing the habitat suitability in selected locations.

Given the longstanding and impressive efforts to address HWC and HEC in the surroundings of KKFC, it would be pretentious to try and add to this highly specialized topic with its many local and experience-based particularities based on a brief visit. Rather, it was considered helpful to document thoughts on selected aspects of wildlife and habitat management observed during the mission, including but not limited to how it relates to HWC:

- Active wildlife and habitat management occurs both inside and outside of KKFC. Wildlife and habitat management is well-advised to be fully coordinated across KKFC and its surroundings, including but not limited to the buffer zone. There are doubts whether this is currently the case;

- The costly creation of artificial salt licks, water holes and grasslands inside of KKFC raises several questions. While it was argued that some species depend on active protection, including habitat management, another option would be to accept natural processes and its consequences in a protected area complex the size of KKFC. Artificially inflating the populations in protected areas when these very populations generate major HWC in the surroundings of the protected areas is certainly debatable.
- It is important to understand the risks and consequences associated with artificially increased aggregations of large herbivores, both for the targeted and other species, as well as the habitats. In all likelihood, the major investment in habitat management could be allocated to other priorities without jeopardizing overall population viability of target species and perhaps even contributing to reduced HWC elsewhere. In other words, the current situation raises both questions of management priorities and conceptual questions;
- Active habitat modification in a large national park raises question of conservation objectives and even conservation philosophy. There is a difference between active management towards a desired status versus protecting an area in order to permit the undisturbed continuation of natural processes;
- Areas next to KBNP offer another example of extensive habitat modification, also to attract locally thriving wildlife tourism. The situation differs from the situation described above, as management does not interfere in the forested interior of protected areas in this case. Much of the land under consideration was used for agriculture and tree plantations in the past and is now in some stage of more or less natural regeneration. While the habitat management results in otherwise impossible, effortless wildlife viewing opportunities, one wonders about the conservation implications and risks. The artificial aggregations of large herbivores come with major consequences for the vegetation and habitats and with disease risks for these species. Another concern is disease transmission to domestic animals and vice-versa, for example between the closely related gaur (*Bos gaurus*), banteng (*Bos javanicus*) and domestic cattle.

The State Party is encouraged to reflect on the conceptual underpinning, coherence and priority-setting of its wildlife and habitat management and to monitor its consequences; the State Party is also encouraged to better understand and prepare for risks which appear to be associated with the artificial aggregations next to KBNP. As is the case for all aspects of management, the unknown status of wildlife in the military-controlled forest reserve between KBNP and KKNP is another question mark to be addressed in this context. In the medium-term, coherent wildlife management should encompass KBFR which after all is an integral part of the inscribed property.

3.6 People in the Forest Complex

It is important to be aware that Thailand's Constitution dated 2017 does not formally recognize "indigenous peoples" and there is no explicit legal framework dedicated to indigenous peoples in Thailand. A legalistic conclusion would be to negate the applicability of corresponding international frameworks, processes and terminology. There are, however, many signs of an increasing de facto recognition of the existence and rights of societal groups, which elsewhere and in many intergovernmental and international processes would be referred to as 'indigenous peoples'. Thailand is a signatory to the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), a major, albeit non-binding intergovernmental framework. Non-governmental and academic actors inside and outside of Thailand, as well as national and international indigenous councils and networks, such as the Assembly of Indigenous and Tribal Peoples of Thailand (AITT), the Network of Indigenous Peoples in Thailand (NIPT) and the International Work Group for Indigenous Affairs (IWGIA) routinely speak of 'indigenous peoples' in Thailand.

Thailand's Constitution recognizes 'different ethnic groups'⁸ living in its territory. Namely, Section 70 reads as follows (emphasis added): "The State should promote and provide protection for **different ethnic groups to have the right to live in the society according to the traditional culture, custom, and ways of life on a voluntary basis, peacefully and without interference**, insofar as it is not contrary to public order or good morals or does not endanger the security of the State, health or sanitation". According to Section 57, the State shall (emphasis added):

- "1. Conserve, revive and promote local wisdom, arts, culture, traditions and good customs at both local and national levels, and provide a public area for the relevant activities including promoting and supporting the people, community and a local administrative organisation to exercise the rights and to participate in the undertaking;
2. Conserve, protect, maintain, restore, manage and use or arrange for **utilisation of natural resources, environment and biodiversity** in a balanced and sustainable manner, provided that the relevant **local people and local community shall be allowed to participate in and obtain the benefit** from such undertaking as provided by law."

The latter reference to 'local people' and 'local community' would appear to encompass any local people and local community regardless of ethnicity, i.e. no privileged rights are granted to any particular societal group in this regard.

It was repeatedly noted that governmental institutions increasingly address what would elsewhere be framed as indigenous matters under emerging human rights frameworks. Similarly, it was consistently noted that respected academic institutions, such as the Sirindhorn Anthropology Centre (SAC) play a constructive role in the evolution of the sensitive debate. Undoubtedly, global indigenous movements and international organizations also influence the debate. Leepreecha (2019) suggested that the debate surrounding indigenous peoples in Thailand move "toward both internal and external recognition". Within the scope of this report, no light could be shed on the important question how the societal groups under consideration may view this debate and to what degree they may or may not identify as indigenous peoples.

Further evolution of the debate is to be expected and may well have consequences for future conservation in Thailand, including in existing and possible future (natural) World Heritage nomination processes and properties. The seemingly contradictory messages in terms of the recognition of indigenous peoples in Thailand have attracted quite a bit of academic attention. Interested readers are encouraged to use contributions by Baird (2019) and Leepreecha (2019), and references therein as food for thought.

Regardless of nomenclature, it is officially recognized that there are many ethnically and culturally distinct communities in Thailand, in the past often referred to as "hill tribes", a term by many considered pejorative today. Other terms used include "tribal peoples", ethnic groups" and "ethnic minorities". This report uses the terms "ethnic communities" and "Karen communities" for pragmatic reasons without implying any position on the sensitive terminological debate.

It is very well documented that commercial logging, infrastructure development like roads and dams, and more recently conservation approaches excluding human occupancy and use of protected areas besides research and tourism, has resulted in severe conflicts with ethnic communities who live in remote mountain areas, often along today's international borders. Large numbers of people have traditionally inhabited and used areas, which are today national parks or wildlife sanctuaries. Research by Buergin (2015, 2014, 2013 and 2011, note also substantial work by Chiang Mai University mostly referring to the interface between ethnic communities and protected areas in Northern Thailand) showed that this is, for example, also the case in the Thungyai-Huai Kha Khaeng Wildlife Sanctuaries, a World Heritage property since 1991. There

⁸ Unofficial translation by the Legal Opinion and Translation Section, Foreign Law Division under the legal duty of the Office of the Council of State, see <https://www.fao.org/faolex/country-profiles/general-profile/en/?iso3=THA>.

is also a long history of forced evictions from protected areas. In many other cases, people continued to live 'illegally' in and/or use protected areas, be it because they consider the areas their traditional territories or due to the absence of obvious alternatives.

Only since 2019, legislation governing national parks and wildlife sanctuaries offers any entry points to start addressing this major and still largely unresolved dilemma, namely articles 64 and 65 of the National Parks Act and articles 121 and 57 of the Wild Animal Conservation and Protection Act, respectively. While termed as a "paradigm shift" by some, a more realistic view is to consider the legal changes a starting point with still limited current and uncertain future implications on the ground. This is not to diminish these legal reforms and the new options that come with it. Rather, the caveat is meant to put the reforms in perspective and remind all involved that it can be a long way from new legislation to new relationships. The latter are required to make the former meaningful and effective. It is also important to be aware that the new legislation is very limited in terms of recognizing any traditional rights of people who inhabited areas prior to their classification and designation as protected areas. Nonetheless, both the new National Parks Act and the Wild Animal Conservation and Protection Act offer official recognition that people can legally live inside of protected areas can obtain (temporary) use rights under certain conditions. In terms of local involvement in management or even governance (decision-making), however, the laws are very limited.

Experience from elsewhere where local participation became one factor in governmental and legal conservation equations much earlier than in Thailand indicate that there are no simple solutions and that strained relationships between governmental protected area agencies and local communities and resource users cannot be changed by the stroke of a pen. Rather, when taken seriously, a reorientation of conservation requires the building of mutual trust and respect over years, decades, even generations. This in turn requires substantial time, effort and nothing less than a redefinition of roles, including of governmental institutions.

Indigenous peoples and local communities (IPLC, an umbrella term used by the Convention on Biological Diversity⁹) are increasingly recognized across the world as potential stewards or custodians of natural ecosystems due to their sophisticated knowledge, direct interaction with their natural environment and presence on the ground, as well as strong incentives for both sustainable use and keeping external users at bay. Another complementary rationale is the rights-based approach which, put simply, is based on the increasingly accepted conviction that IPLC have or should have inherent rights regarding traditionally inhabited and used territories which deserve to be reflected in legal and policy frameworks.

The changes to key conservation legislation in Thailand in 2019 are a laudable step in line with evolving conservation thinking. However, real-life consequences will require answers to many open questions:

- What exactly will be the terms of the involvement of local communities following decades of severe conflict in protected areas following earlier conflicts triggered by large-scale commercial logging and uneven power dynamics?
- What will be the concrete participation mechanisms in management and decision-making (governance)?
- How will governmental management institutions be qualified to play a new role after decades of extremely limited participation?
- What will be the obligations accompanying new rights?

⁹ Note that the term is controversial on the grounds that it lumps together societal groups, which according to some should explicitly be distinguished.

- How can the legitimate societal objectives and international obligations under biodiversity and climate change frameworks best be reconciled with local rights at a time of increasing pressure on “nature”?

It becomes clear that the concerns about Karen communities in KKNP expressed by the World Heritage Committee, IUCN and many other observers, including the Special Rapporteur on the Rights of Indigenous Peoples appointed by the United Nations Commission on Human Rights are by no means an isolated case. Rather, KKFC is a particularly visible example of a legacy of decades of an exclusionist protected area model. Accordingly, the situation in KKNP should be understood as the tip of an iceberg and as part of broader debate. The new laws offer new opportunities but they will need to be accompanied by operational guidance in the form of subordinate by-laws and regulations, methodologies, working modes and new roles for all involved.

Setting the stage for a more specific consideration of KKNP, it is important to understand that large parts of what is today KKFC have a history of commercial logging, including road construction, which resulted in conflicts with traditional inhabitants even before the tensions following the creation of the various protected areas. Forced evictions followed on the grounds of border security and laws protecting watersheds to secure water provision.

The World Heritage requirements for participation of IPLC have considerably grown over the last years, both for nominated and inscribed properties, as is reflected in various revisions of the Operational Guidelines over the last years and the revision of the nomination format in 2021. While the latter is not retrospectively applicable to KKFC, the evolving language in key World Heritage documents shows a clear trend and one that future World Heritage nominations in Thailand and elsewhere will have to consider.

The Bang Kloy case in KKNP

Prior to the establishment of the protected areas and eventually the forest complex, there were several small villages and more or less mobile Karen communities engaged in rotational farming and other forms of natural resource use, including hunting and harvesting. The village of Lower Bang Kloy inside KKNP has attracted national and international concern in relation to the situation of the Karen community. The specific background on this has been summarized in previous IUCN reports, including complaints and allegations that have been made over the course of time. It is not the purpose of the present report to restate this history, but it is important that it is acknowledged as having shaped a current and ingrained conflictual relationship between the community and DNP.

Elements that have contributed to the current situation, noted by the present brief mission include:

- Prior to 1996 watershed protection objectives were used to justify the forced eviction of Karen from “Upper Bang Kloy” near the international border with Myanmar, according to some justified in order to secure water provision for the Kaeng Krachan reservoir. The mission heard some opinions suggesting that border security concerns played another or even decisive role in the justification provided for forced eviction, and also opinions that some Karen community members apparently moved to the new or other locations on a voluntary basis;
- The new village location, the location of Lower Bang Kloy to this day, in the immediate vicinity of the Pong Luek village and both are inside of KKNP and difficult to access via a winding dirt road. On the occasion of the site visit, it was credibly explained by residents of both Lower Bang Kloy and Pong Luek that the selected location resulted in competition and tensions between the two villages;

- At the time of relocation, prior to the 2019 National Parks Act, national law did not grant communities a secure foundation to live in a national park and engage in livelihoods based on natural resources;
- The village was described to the mission as dynamic, also due to the vicinity to the Myanmar-Thailand border and incentives to evade armed conflicts across the border in parts of Myanmar, where there is the largest population of Karen people;
- Around 2014, some members of the Karen returned to the earlier location of their village ("Upper Bang Kloy") despite a legal prohibition to do so; the returning Karen were possibly joined by other Karen from other locations, including from Myanmar;
- In a joint helicopter operation, DNP and the Thai Armed Forces reportedly granted the Upper Bang Kloy community a defined period of time to leave the area. When some refused to comply, a forced eviction ensued, which appears to have escalated, as the simple houses and rice barns in Upper Bang Kloy were burned down;
- Further escalation occurred following the disappearance and alleged murder of a prominent Karen community member. The case has been submitted to the Supreme Court by the Attorney General.

The brief visit to Lower Bang Kloy indicates the following:

- DNP and other governmental authorities at this stage do not appear to be perceived as trustworthy partners by the community;
- Some community members expressed their willingness to continue to live in Lower Bang Kloy while others expressed a willingness to return "to the hills" (Jai Pen Din), knowingly risking and apparently accepting further conflict;
- Several community members expressed an acute need for agricultural land, some also for housing plots. Some community members argued that insufficient availability of agricultural land forced them to illegally harvest non-timber forest products. It could not be established to what degree this is or is not representative for the village;
- It was consistently argued that the allocation of land and harvesting areas under articles 64 and 65 of new national park legislation was rushed and insufficiently considered the needs of the actual resource users;
- As one would expect in the remote forest setting, a strong dependence on a wide range of natural resources was confirmed, including medicinal plants, honey, bamboo and palm leaves for construction, firewood, fruit, fish etc.;
- Natural resource use was stated to primarily meet subsistence needs, which is plausible for the simple reason of the remote location of Lower Bang Kloy and the poor road conditions. Villagers reported to regularly request DNP to improve the access road precisely to be able to access markets. While understandable, better road and thus market access is likely to increase pressure on natural resources;
- There is a clear meeting / consultation fatigue, as villagers Lower Bang Kloy have received many visits without many tangible benefits so far.

Overall, unresolved issues center around what was described as insufficient agricultural land, inadequately defined and located harvesting zones and an overall lack of clarity in terms of the implications of new national park legislation and World Heritage status. The presence of agricultural projects was acknowledged, but it was argued that some of the technology used was not tailored to local conditions. For example, an irrigation system provided by one project cannot be maintained and repaired locally. The requests on the table appear to be clear and include more land for agriculture and housing in line with stated needs. Similarly, the legal option of

harvesting natural resources is appreciated, but zones defined for the purpose do not appear to be in line with needs. Some community members wish to return to the old location (Jai Pen Din) of Bang Kloy and engage in rotational farming even though the new National Park Act of 2019 offers no legal basis in this regard.

Bang Kloy is a high-profile case and the prolonged World Heritage inscription added much visibility. Put simply, IUCN in its role as an independent Advisory Body to the World Heritage Committee presented in its evaluation reports that more time was needed to allow for adequate resolution of acute conflicts. In the wording of the most recent evaluation in 2021, IUCN emphasized “clear expectations in the Operational Guidelines regarding the need for free, prior and informed consent, in line with the UNESCO Policy on engaging with Indigenous Peoples and UNDRIP, which should be met before any resubmission of the nomination”. From a legalistic perspective, one can argue that Thailand does not recognize indigenous peoples and that the IUCN reasoning was therefore not applicable. Similarly, it is possible to challenge the applicability of UNDRIP or UNESCO policies. However, one cannot deny that parallel intergovernmental processes involving the same governments are ongoing and thus form part of overlapping debates and cannot simply be ignored or rejected on formal grounds. Fact is that over several of its sessions, the intergovernmental World Heritage Committee in principle endorsed the IUCN advice, while deciding a **referral** rather than the more demanding **deferral** recommended by IUCN. The language used by the World Heritage Committee is unambiguous in this regard:

- “Demonstrate that all concerns have been resolved, in full consultation with the local communities, in accordance with paragraph 123 of the Operational Guidelines” (Decision 43 COM 8B.5);
- “Allow it [the State Party] to more fully address the concerns that have been raised by the Office of the United Nations High Commissioner for Human Rights concerning Karen communities within the Kaeng Krachan National Park, including the implementation of a participatory process to resolve rights and livelihood concerns and to achieve a consensus of support for the nomination of the property that is fully consistent with the principle of free, prior and informed consent” (Decision 40 COM 8B.11);
- “Address in full the concerns that have been raised by the Office of the United Nations High Commissioner for Human Rights concerning Karen communities within the Kaeng Krachan National Park including the implementation of a participatory process to resolve rights and livelihoods concerns and to reach the widest possible support of local communities, governmental, non-governmental and private organizations and other stakeholders for the nomination” (Decision 39 COM 8B.5).

According to these excerpts from adopted decisions, the World Heritage Committee endorsed reference to FPIC and cross-references to other UN-level processes and institutions. Rather than prescribing any particular action, both IUCN and the World Heritage Committee implied a need for more time for resolution of unresolved issues. When the World Heritage Committee deviated from this logic in its inscription decision, it still went so far as to acknowledge “work in progress”, i.e. a need for additional follow-up.

During the mission, it became very clear that these tensions are unresolved and further work is needed. Due to the proposed dam construction, there is potential for another high-profile conflict. Neither the overall situation nor the conflict in Bang Kloy are a consequence of the World Heritage nomination or World Heritage status and should not be framed as such. As the World Heritage Convention moves towards a more meaningful consideration and involvement of IPLC, an inscription prior to the resolution of strong, well-documented and highly visible conflicts can

be seen as a missed opportunity for the credibility and relevance of the Convention. Nonetheless, it is not too late to improve the situation in many ways.

Several processes are ongoing. At the national level, a high-level Independent Expert Committee and working groups have been appointed by the Prime Minister to determine a way forward for the Bang Kloy community when the return of some families to their former village land resulted in another conflict and arrests.

It is difficult to separate the Bang Kloy case from the broader question of coming to terms with a legacy of excluding people from protected areas in which they lived and often continued to live and depend for their cultural and physical survival for many decades. KKNP is by no means the only place within KKFC where marginalized communities are caught between high conservation values, protected areas, watersheds and sensitive borders. The derailed Bang Kloy case can be used as a pilot project to find common ground. Eventually, the lessons learned could be applied to the entire forest complex and perhaps beyond.

The OG explicitly encourage States Parties to obtain Free, Prior and Informed Consent even before sites are included on the Tentative List. Moreover, the OG explicitly accept sustainable use in World Heritage properties as long as it does not compromise the Outstanding Universal Value (see paragraph 119). Accordingly, there is no foundation to link forced evictions or denied access to resources to supposedly applicable World Heritage requirements, as is at times erroneously done. The notion of sustainable use in the OG was at odds with the situation in Thailand's protected areas until 2019, because applicable legislation in essence declared any resource use to be incompatible with protected area status. However, it is far from clear whether local resource use or even rotational farming really should constitute priority conservation concerns at all. While it would be naive to open protected areas to resource use without understanding the consequences or without defining and enforcing adequate agreements, there is a need for further research on the actual ecological consequences of local resource use and rotational farming in Thailand. These are poorly researched and represent a major knowledge gap.

The legislation in 2019 and a broader legal and policy shift towards more community participation cannot easily resolve the legacy of a conservation approach clashing with local people over several generations. It is important to be realistic in this regard in Bang Kloy, KKNP and the wider forest complex. Rebuilding relationship with local communities and ensuring the local communities understand the regulations of the revised Act will take significant amounts of time. The power dynamics appear to be unchanged and participation appears to be still mostly restricted to the level of information-sharing. As described locally, the process of allocating land and harvesting rights was unsatisfactory as the rushed establishment of baselines failed to adequately understand local livelihood systems and needs. It is also unclear what happens after the expiration of the use rights after the period of 20 years defined in the law. There are further practical challenges including language barriers. Eventually, functional mechanisms must be found to enable an actual negotiation between governmental conservation actors and local residents and resource users, which fully considers the actual needs of communities.

Concretely, the following aspects deserve further consideration:

- There are longstanding conflicts in many of Thailand's protected areas involving culturally distinct people, which require better solutions regardless of legal status and nomenclature;
- Any natural resource use in protected areas was illegal into the recent past based on the assumption or perhaps ideology that any use was per se destructive. In light of the new legal framework permitting controlled use, there is every reason to invest in a better understanding of the actual effects of local resource use as opposed to assumed or

alleged ones. Pilot projects are thinkable, accompanied by analysis considering science and local knowledge. Participatory mapping exercises visualizing traditional and current land and resource use are a helpful tool, which could contribute to such efforts;

- As for rotational farming, it became clear that there are competing views. While some reject rotational farming on the grounds of assumed incompatibility with conservation objectives, others argue that rotational farming is not among the most significant threats to protected areas in most settings, depending on its intensity and the duration of fallow periods. It deserves to be better understood what the effects really are in a given setting and what intensity might be acceptable rather than basing decision-making on untested assumptions;
- While the Operational Guidelines for the Implementation of the World Heritage Convention continue to offer limited guidance on rights-based conservation, it is important to recall that the Convention does not operate in a vacuum, starting with UNDRIP and broader UNESCO policies. While one can legalistically argue that other frameworks are not directly applicable to World Heritage, evolving norms and standards and policy decisions in other parts of the UN system serve as non-binding referential points which cannot be ignored either; it is unsurprising that many observers note and call out inconsistencies between recent changes in key World Heritage documents and the inscription decision.

The best-case scenario to overcome the controversy would be to invest in a better understanding of the actual environmental and social effects of local natural resource use, including rotational farming. Pilot projects to this effect could eventually help move from major negative visibility to a flagship case for serious and credible attempts to breathe life into new legal options to finally consider community needs. Concretely, one could experiment participatory mapping and appraisals in order to find workable methods to apply the new legislation.

Given ongoing work on another natural World Heritage nomination involving well-known conflicts with communities, every effort should be made to address community needs and considerations within the nomination process to avoid another confrontational process from local to international level.

3.7 Additional observations

3.7.1 Natural World Heritage in Thailand

It is noteworthy that all of Thailand's three natural World Heritage properties inscribed today overlap with fairly large conservation complexes bringing together two or more protected areas. This approach is remarkably close to a World Heritage approach promoted by a group of conservationists over the last years (see Allan et al. 2018, Kormos et al. 2017 and 2015). Put simply, the authors advocate for large protected area complexes as a particularity promising World Heritage scenario to ensure the continuation of ecological processes and biodiversity at the landscape level in a world increasingly shaped by human beings. It is no coincidence that regional and national conservation analysis routinely identifies Thailand's three large forest complexes (partially¹⁰) on the World Heritage List as the only places where viable populations of species requiring large and intact areas have any chance of long-term survival (e.g. ICEM, 2003). Such analysis also illustrates that the Thungyai-Huai Kha Khaeng Wildlife Sanctuaries (THKKWS) and KKFC continue to be ecologically connected and can jointly be considered as the arguably most important large-scale conservation approach in all of Thailand. The connectivity between these two forests complexes and World Heritage properties is increasingly compromised on the Thai side, but reportedly still more functional in Myanmar.

¹⁰ Thungyai-Huai Kha Khaeng Wildlife Sanctuaries (THKKWS) is embedded in the much larger Western Forest Complex (WEFCOM)

THKKWS was inscribed on the World Heritage List in 1991 at a time when the nomination of individual national parks was the norm. Thailand can thus be regarded as a hidden pioneer in terms of World Heritage nominations of protected area complexes. While this appears to have attracted no systematic attention so far, it certainly deserves credit and further analysis. Undoubtedly, the experience offers important lessons, for example in terms of coherent management across the individual protected areas.

Today, THKKWS is embedded in the much larger Western Forest Complex (WEFCOM), which has substantially expanded since the time of inscription more than three decades ago. DNP informally reported internal discussions about the possible future extension of the World Heritage property so as to better harmonize it with WEFCOM's national designation and management. While beyond the scope of this report, it was considered helpful to document this finding and to make it clear that a possible extension of the THKKWS World Heritage property undoubtedly merits discussion and support from a conservation perspective in order to add a layer of protection of the globally important WEFCOM.

Along with Thailand's third natural World Heritage property, the Dong Phrayayen-Khao Yai Forest Complex (DPKY-FC), KKFC and THKKWS share a number of similarities. All conserve mostly mountainous forest landscapes in relatively remote border locations with very limited infrastructure. Despite local particularities, the mix of challenges includes encroachment, transportation infrastructure, dam construction, a history of legal logging, illegal logging, poaching, wildlife trade and human-wildlife conflict (HWC) according to the literature, which was confirmed by DNP during the mission. As importantly, even a superficial analysis leaves no doubt that across Thailand, conflicts between governmental conservation and local communities are widespread and by no means restricted to KKFC. In fact, the literature identifies a fundamental contradiction between a very significant number of people living in and/or using Thailand's protected areas and forest reserves despite many decades of a legal framework categorically prohibiting both into the recent past. Recent changes to the legal framework can be interpreted as an attempt to come to terms with this contradiction.

Consequently, there is every reason to expect a systematic and coherent consideration of Thailand's de facto "forest complex approach" to come with valuable lessons for all involved. Strengthening technical exchange among Thailand's three natural World Heritage properties is strongly encouraged. It is hoped that this report can offer some food for thought in this regard and perhaps even contribute to informing future natural World Heritage nominations. Concretely, the State Party is encouraged to:

- Consider options to work towards a coherent approach to natural World Heritage properties due to several striking similarities in terms of settings and challenges;
- Assess the feasibility of an extension of the Thungyai-Huai Kha Khaeng Wildlife Sanctuaries World Heritage property so as to better reflect the evolution of WEFCOM over the more than three decades since the World Heritage inscription of the two wildlife sanctuaries within it;
- Reflect on, maintain and restore the connectivity between WEFCOM and KKFC based on ongoing efforts to this effect while keeping in mind that the connectivity between WEFCOM and KKFC depends on both sides of the international border;
- Carefully consider the ongoing lessons from KKFC in current efforts to nominate the Andaman Sea Nature Reserves of Thailand, a candidate site on Thailand's Tentative List since 2021 (<https://whc.unesco.org/en/tentativelists/6573/>). In this context, it is important to be aware that the revision of the Operational Guidelines in 2021 has strengthened the

requirements in terms of community participation in both nomination processes and site management.

For the same reasons, IUCN is encouraged to keep the many parallels between Thailand's natural World Heritage properties in mind to ensure full coherence in its technical contributions.

3.7.2 Nomination / inscription criteria

KKFC was nominated under natural criterion (x). IUCN in its evaluations repeatedly noted potential under natural criterion (ix) and concretely recommended nomination under that additional criterion. The World Heritage Committee endorsed the IUCN view and recommended concrete follow-up in its decision-making. Both Decision 40 COM 8B.11 (Istanbul, 2016) and Decision 39 COM 8B.5 (Bonn, 2015) encouraged the State Party "to consider nominating the property also under criterion (ix)". Eventually, KKFC was inscribed under criterion (x) only, as nominated by the State Party.

While an in-depth analysis is beyond the scope of this report, criterion (ix) clearly deserves consideration. According to paragraph 77 of the Operational Guidelines (OG), the criterion has a focus on "outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals". In principle, this would appear to potentially apply to KKFC, as noted in the IUCN evaluation. A comparison with the other two natural World Heritage properties at first shows that Thungyai-Huai Kha Khaeng Wildlife Sanctuaries (THKKWS) in 1991 was inscribed under natural World Heritage criteria (vii), (ix) and (x). In principle the use of criterion (ix) in a roughly comparable setting can reasonably be interpreted as supporting the case for criterion (ix) as an option for KKFC. Seemingly somewhat inconsistently, the inscription of the Dong Phrayayen-Khao Yai Forest Complex in 2005 under criterion (x) only could be used to argue for the exact opposite.

While the State Party has no obligation to do so, it has the option to propose the modification of the criteria used to justify inscription on the World Heritage List. However, it is important to understand the implications. According to paragraph 166 of the OGs a State Party request to this effect would be processed as if it were a new nomination, i.e. amount to a full nomination. The paragraph further notes that properties "will only be evaluated under the new criteria and will remain on the World Heritage List even if unsuccessful in having additional criteria recognized". In other words, the procedure comes without risks, but also with major costs against debatable benefits.

To conclude, the IUCN recommendation to also consider criterion (ix), endorsed by the Committee, continues to be justifiable. At the same time, it is a somewhat academic question at a time when there are several much more serious and acute priorities to be addressed on the ground. In the view of the author, the benefits of inscription under an additional criterion do not necessarily justify the major effort needed to elaborate a full nomination. Besides, a "new nomination" would most likely create confusion at various levels. Consequently, it is not recommended to pursue inscription under any additional criterion at this stage.

However, the notion could and should be revisited if and when an extension into Myanmar might become an option in the future. Such a transboundary extension would require a new nomination procedure anyway and Thailand may wish to actively join the effort, adding criterion (ix) in the process in line with the 'Taninthayi Forest Corridor' on Myanmar's Tentative List under criteria (ix) and (x).

4. Conclusions and Recommendations

While the previous chapter attempted to do justice to the complexity of the situation at hand, this chapter purposefully synthesizes and simplifies. Readers interested in specific issues are encouraged to read the corresponding full sections in chapter 3. The subsequent conclusions

are presented in order of chapter 3, each conclusion is followed by specific recommendations when applicable.

Regardless of how one judges the inscription decision, there is no way around the fact that KKFC today is inscribed on the World Heritage List and thus must be treated like any other property as regards the implications of the status. It is unhelpful to retrospectively call the inscription decision into question in the framework of an advisory mission to the inscribed property. The focus of these conclusions and recommendations is therefore on options for a way forward.

Internationally, both conservation thinking and the legal and policy frameworks have been evolving in terms of the roles and rights of IPLC, as is gradually reflected also in the evolution of the Operational Guidelines for the Implementation of the World Heritage Convention. It will therefore become increasingly difficult and unhelpful to pay limited attention to IPLC in the World Heritage arena, as has too often been the case in the past. While differences to other UN processes and debates need to be respected, the World Heritage Convention cannot possibly be viewed in isolation of parallel debates.

In line with the various IUCN evaluations and Committee decisions, the mission could confirm an ongoing need for stronger responses to multiple issues in order to ensure full compliance with World Heritage requirements. Discussions during the mission indicate strong acknowledgement of the challenges at hand per se on the part of DNP. In terms of possible responses, differing views mostly center around the exact consequences of recently changed conservation legislation in terms of the role of local people and local communities.

Overarching conclusion

KKFC is currently not in full compliance with all applicable World Heritage requirements and there is a need to continue the “work in progress” noted by the World Heritage Committee.

4.1 Specific recommendations to ensure compliance with Operational Guidelines

Making sense of the excised area

For diplomatic reasons, the strip of land along the international border with Myanmar amounting to some 15% was removed from the initially nominated property. The conservation importance of this excised area is indisputable and all efforts should focus on the best possible protection and management of the excised area within Thailand, which continues to be part of KKFC as defined and managed at the national level despite uncertainty regarding the Kui Buri Forest Reserve discussed below. Thereby, the excised area is for the most part under an adequate legal and management regime despite being removed from the initially nominated property.

In order to eliminate any ambiguity, the State Party should expressly commit to manage and protect the area within its territory as if it were part of the inscribed property. There is also the complementary option to declare the excised area part of a World Heritage buffer zone for the time being. This would be a temporary gesture of commitment to the area until a time when the desirable full harmonization of KKFC and the inscribed property might become possible in line with the initial nomination approach. An eventual inclusion of the currently excised area in line with the initial nomination approach is currently not realistic due to reasons beyond the control of the State Party of Thailand. Ideally, the desirable re-inclusion of the area excised from the nominated property could be achieved as part of a transboundary extension of KKFC.

The transboundary setting as such appears to be identical to the setting of the Thungyai-Huai Kha Khaeng Wildlife Sanctuaries property, the western boundary of which likewise coincides with the international border between Thailand and Myanmar.

Recommendation 1

Noting the undisputable conservation importance of the area between the inscribed World Heritage property and the border with Myanmar, commit to manage and protect the area removed from the nominated area as if it were part of the inscribed property.

Recommendation 2

Continue dialogue with relevant actors in Myanmar to protect wildlife moving in and out of KKFC and work towards the eventual inclusion of the area between the inscribed property and the border with Myanmar, ideally along with a future transboundary extension.

KKFC and proposed dam construction

Proposed dam construction in Mae Nam Phachi Wildlife Sanctuary (MNPWS) is highly controversial for several reasons, including opposition by Karen communities facing forced eviction following earlier forced eviction by numerous community members to the very site of the proposed dam construction. The proposed project site is within a wildlife sanctuary, KKFC and the initially nominated property. Curiously, it is outside of the inscribed property today due to the above noted excision of land near the border from the initially nominated property. The existing EIA was conducted prior to the World Heritage inscription and did not consider KKFC's World Heritage status as is needed today. Strong doubts remain about the wisdom of risking another predictable confrontation at a time when Thailand is attempting to come to terms with a legacy of severe conflicts between governmental conservation and local people. It is strongly recommended that the State Party carefully assess the impacts of the proposed project on the OUV of the property and local Karen communities and consider a no-project scenario as a possible outcome.

Recommendation 3

Carefully and comprehensively assess all environmental and social impacts of the proposed Nong Ta Dang (Purakam) dam, specifically taking into account OUV of the nearby property and retaining a no-project option as one possible outcome.

KKFC as a serial property

The nomination dossier and maps therein identify KKFC as a serial property due to two "disconnected areas in the southwest corner at Kui Buri National Park". One implication of serial approaches is the requirement for coordinated management of the multiple components. In the case of KKFC, however, there is an overarching coordination requirement because the property encompasses multiple protected areas. Therefore, the implications of the serial approach can and should be integrated into the management of KBNP and the broader management at the level of the forest complex discussed below. Compliance with Paragraph 114 of the OGs can and should thus be achieved under overlapping requirements. Because an expansion of KBNP to integrate its small satellite areas to the east was widely regarded as unrealistic, the most promising scenario to address the ecological linkages between the various components of KBNP is to declare all of the land between KBNP's various components as part of the buffer zone. This approach is in line with the initial State Party proposal for a buffer zone, which was regrettably not reflected in the inscription decision. Thereby, the situation can be framed as both a management coordination and a buffer zone issue and is therefore subsumed in the corresponding below recommendations.

Towards an effective buffer zone

Despite the striking need and a detailed initial proposal for a buffer zone, KKFC was inscribed in 2021 in the absence of a defined World Heritage buffer zone. There can be no doubt that a World Heritage buffer zone needs to be defined in order to comply with World Heritage requirements. Rather than an obligation, the determination of a buffer zone is an opportunity to address well-known challenges along the boundary of KKFC. While the OG do not prescribe any methodology underpinning the determination and management of a buffer zone, they do define its objectives and functions. Like any other State Party, Thailand is to find its own way tailored

to the situation on the ground around KKFC and available legal, policy and planning options. The use of a schematic line in the landscape simply defined by a more or less arbitrary distance from KKFC's boundary is discouraged. The State Party is encouraged to take the time to develop an approach, which responds to the local challenges, opportunities and existing efforts to integrate conservation considerations in land use and infrastructure planning in the landscape surrounding KKFC. In practice, a buffer zone adapted to the setting is likely to take advantage of existing boundaries, for example of forest reserves and consider ecological consideration, such as natural limits of river basins and sub-basins. In line with World Heritage requirements, the outcome can then be submitted as a Minor Boundary Modification and be processed according to the straightforward applicable procedures (see paragraph 164 of the Operational Guidelines).

As noted above, it deserves to be discussed whether the area excised from the nominated property along the border with Myanmar might be integrated into the buffer zone as well in order to establish some formal link under the World Heritage Convention until a more satisfactory solution might be achievable in dialogue with the neighboring country.

Recommendation 4

Determine a buffer zone, tailored to the local situation around KKFC, via the procedure of a Minor Boundary Modification.

Overarching coordination and management of the Forest Complex

Thailand's World Heritage approach to nominate conservation complexes rather than individual protected areas is exemplary. The approach can and should facilitate management beyond the level of individual protected areas. Starting with the international dimension, the following recommendations are offered according to the various management levels, all of which would benefit from enhanced coordination.

At the international level, the Dawna Tenasserim Landscape lends itself as a framework for the discussion at the level of the transboundary landscape and forest block, including from a World Heritage perspective. Eventually, if and when politically feasible, some sort of mechanism or platform for systematic communication, coordination and communication between the governments and conservation actors involved on both sides of the border would undoubtedly be desirable and beneficial from a conservation perspective.

Zooming in to the national level, two further dimensions emerged during the mission. First, there is every reason to work towards coherent and coordinated analysis of, and guidance for, all of the State Party's three natural World Heritage properties due to conspicuous similarities in terms of settings, conservation values and challenges. Second, the part of the Dawna Tenasserim Landscape within the territory of Thailand is another highly relevant landscape unit. Everything that can be done to maintain and restore the vanishing linkages between WEFCON and KKFC on the Thai side via coordination with relevant sectors and actors will add value to both forest complexes and thereby deserves to be looked at specifically.

At the level of KKFC and its so far missing buffer zone, enhancing the management coordination beyond the level of the various individual protected areas is a good and needed investment, also to take care of the so far neglected implications of the serial nature of the inscribed property. The buffer zone adds complexity, as its management also requires coordination at the level of KKFC beyond each individual protected area. Many additional actors and sectors come into play in the surroundings of the property. Rather than playing the central role, DNP is one of several governmental actors only in the buffer zone with a very limited mandate compared to its leadership in the management of KKFC.

It is recommended to work towards more structured overall coordination mechanisms covering the entire forest complex, also addressing overarching issues beyond the complex itself, notably

by including a buffer zone in line with the needs. Such an overarching management level would require a mechanism ensuring an adequate mandate, working mode, consultations and some sort of accompanying advisory body. This level of overarching coordination and planning should be coupled with the development of a strategic overarching planning document for the entire “KKFC Landscape”, i.e. the forest complex plus its intricately linked surroundings in Thailand. Rather than the detailed planning required for the individual protected areas, the overarching plan should identify and offer guidance on strategic issues, such as landscape connectivity, land use changes and offer corresponding guidance. Other issues to be addressed could be joint overall monitoring, a shared database and joint wildlife monitoring and management, including human-wildlife conflicts.

Importantly, the poorly known de facto status and management of the land under military control linking KKNP and KBNP, referred to in this report as KBFR, should eventually be fully coordinated with the monitoring and management of KKFC in line with its World Heritage status.

At the level of the four protected areas jointly forming KKFC, the implications of the recent legal changes predating the World Heritage inscription come with profound implications for the future management of all national parks and wildlife sanctuaries and thereby also forest complexes in terms of the role of communities. The debate is in its infancy and effective participation mechanisms are yet to be included at all levels of management. Lessons learned when establishing the Dong Phrayayen-Khao Yai World Heritage PAC can inform the creation of a comparable platform for participation in KKFC.

Recommendation 5

Consider the transboundary dimension of the Dawna Tenasserim Landscape in all planning in preparation for future opportunities to engage in enhanced coordination and cooperation.

Recommendation 6

Assess the feasibility and parameters of a possible transboundary extension of KKFC to be prepared for a time when opportunities and political windows may arise.

Recommendation 7

Consolidate the Protected Area Committees for each unit of KKFC, fully reflecting new legislation governing national parks and wildlife sanctuaries since 2019 through meaningful participation of local communities.

Recommendation 8

Consider the creation of an overarching management coordination mechanism for the entire KKFC and its buffer zone, explicitly including the Kui Buri Forest Reserve, and ensure full stakeholder and rights-holder participation, clear terms of reference and a defined and adequate mandate for such a mechanism.

Recommendation 9

Consider the elaboration of an overarching strategic management plan for the entire KKFC and its buffer zone, explicitly including the Kui Buri Forest Reserve, fully involving all stakeholders and rights-holders.

Recommendation 10

Ensure adequate management and protection for the Kui Buri Forest Reserve to ensure coherence and connectivity, as well as full compliance with World Heritage requirements.

Wildlife and habitat management

The ranges of the many wildlife populations using KKFC are by no means restricted to individual protected areas, KKFC or even Thailand. Overall, KKFC finds itself in a period of recovering wildlife populations due to increasingly effective conservation efforts. This recovery coincides with increasing development in KKFC’s surroundings. More intense HWC is on the horizon, which will require ever-stronger responses. Wildlife and habitat management is well-advised to

be fully coordinated across KKFC and its surroundings, including, but not limited to, the buffer zone.

The costly creation of artificial salt licks, water holes and grasslands inside of KKFC raises questions in terms of the exact ecological consequences for the targeted and other species. Areas in the immediate vicinity of KBNP offer another example of massive habitat modification to attract locally thriving wildlife tourism. While the habitat management results in otherwise impossible wildlife viewing opportunities, the conservation implications and risks require more profound analysis. The artificial aggregations of large herbivores come with major consequences for natural forest restoration and with disease contagion risks, including the risk of transmission from wildlife to domestic animals and vice-versa.

The State Party is encouraged to carefully reflect on the conceptual underpinning, coherence and priority-setting of its wildlife and habitat management and to monitor its consequences, and to better understand and address risks associated with the artificial aggregations of large herbivores next to KBNP and near closely related livestock species.

Recommendation 11

Carefully assess disease contagion and transmission risks associated with habitat and wildlife management resulting in artificially increased aggregations of large mammals.

People in the Forest Complex

A signatory to UNDRIP, Thailand does not formally recognize “indigenous peoples” in its territory. There are, however, many signs of an increasing de facto acknowledgement of the existence and rights of societal groups, which elsewhere and in several international processes would be referred to as ‘indigenous peoples’. Regardless of nomenclature, it is well-documented that most - if not all - of Thailand’s protected areas have been inhabited and used by local communities prior to protected area designation. While forced evictions were not uncommon, local residents and resource users in protected areas have been the norm rather than the exception. As a result, there has been a striking discrepancy between the legal framework and the reality on the ground over many decades. Since 2019, new legislation enables certain rights for, and involvement of, local people.

The situation of the communities in Bang Kloy has a high-profile nationally and internationally and World Heritage has added visibility. Regardless of differing perspectives and positions, it is undeniable that there are severe and ongoing conflicts and tensions. The mission included a visit to Lower Bang Kloy and it became clear that these conflicts remain unresolved despite efforts to move forward based on the new National Parks Act in place since 2019. Predictably, what local Karen consistently described as a rushed application of the new legislation in a climate of mutual mistrust could not result in a satisfactory conflict resolution.

Strained relationships between governmental protected area agencies and local communities and resource users cannot be changed overnight. Experience from across the world leaves no doubt that a real reorientation of conservation requires the building of mutual trust and respect over years, decades, even generations. This in turn requires sufficient time, effort and nothing less than a redefinition of roles, including of governmental institutions.

It is difficult to imagine that the existing conflicts will be resolved without major efforts by all involved and a willingness to go beyond current efforts. Additional efforts could come in the form of a pilot project in KKFC to test practical ways to implement new legislation. Concretely, there appears to be no clear understanding of effective mechanisms to enhance participatory management and governance arrangements and to adequately consider emerging community rights to use resources in protected areas. Doing so would be a promising way to inform emerging participation efforts in KKFC but also beyond KKFC.

In the 2021 IUCN Evaluation report, IUCN recommended close collaboration and consultation with the Special Procedures Branch of the Office of the United Nations High Commissioner for Human Rights (UNOHCHR) in order to fully and satisfactorily resolve issues raised by various Special Rapporteurs. It was also suggested the National Human Rights Commission of Thailand jointly address the concerns raised by the local communities. As the satisfactory resolution of the situation relies not only, or even primarily on World Heritage processes, but the wider credibility of actions on issues raised by organizations concerned with human rights, it is recommended that action continues to resolve concerns raised with the UNOHCHR and the National Human Rights Commission.

Recommendation 12

Carefully examine and enhance participatory management and governance arrangements enabled by new legislation in place since 2019.

Recommendation 13

Consult and work closely with the Special Procedures Branch of the Office of the United Nations High Commissioner for Human Rights (UNOHCHR) and the National Human Rights Commission of Thailand in order to fully and satisfactorily resolve issues raised by the Special Rapporteurs.

Recommendation 14

Consider the development of pilot projects in KKFC to explore better ways to reconcile legitimate economic, social, cultural and spiritual needs of communities living in and/or using protected areas and conservation objectives.

4.2 Additional Recommendations

Thailand has applied a remarkable and highly commendable “protected area complex approach” to all of its so far three inscribed natural World Heritage properties. This has not received much attention in the World Heritage arena. Due to striking similarities in terms of both ecosystems and challenges, the setting lends itself to exploring consistent approaches based on coherent analysis across the three properties. Systematic exchange and networking are highly recommended in this regard.

Recommendation 15

Strengthen systematic exchange among Thailand’s three natural World Heritage properties to work towards a coherent approach to natural World Heritage properties.

While a detailed comparative analysis is beyond the scope of this report, parallels also emerged as regards an ongoing nomination process in informal discussions during the mission. It became clear that there are important community rights issues associated with the nomination of the “Andaman Sea Nature Reserves of Thailand” (<https://whc.unesco.org/en/tentativelists/6573/>). In this context, it is important to be aware that the revision of the Operational Guidelines in 2021 has considerably stepped up the requirements in terms of community participation in both nomination processes and site management, including the nomination format itself (Annex 5 of the OG). It becomes all the more important to carefully address the human dimension of this possible further natural World Heritage nomination and grant the process the time required in order to avoid the unfortunate tensions accompanying the inscription of KKFC.

Recommendation 16

Carefully consider the ongoing lessons from KKFC in current efforts to nominate the ‘Andaman Sea Nature Reserves of Thailand’, taking into account changes to the Operational Guidelines and the nomination format in terms of community consent and participation.

The important linkages between KKFC and WEFCON in the Dawna Tenasserim Landscape (DTL), and the increasing threats to them, emerged as an important dimension of both forest

complexes. From a conservation perspective, there is every reason to assess options to maintain and restore these linkages on both sides of the international border. It is interesting to note in this context that the Western Forest Complex (WEFCOM) was considerably expanded since the Thungyai-Huai Kha Khaeng Wildlife Sanctuaries (THKKWS) were inscribed on the World Heritage List in 1991. THKKWS today is an important, yet relatively small part of the much larger WEFCOM.

Furthermore, the mission learned of existing ideas to expand KKFC to the north, which would be another contribution to the conservation of the Tenasserim Corridor and thereby DTL, but also to the integrity of KKFC. The current use of maps showing KKFC as if it were an island, including on the official World Heritage map, is unhelpful in this regard. The production and use of more adequate maps showing relevant features in the surrounding landscape would enhance their effectiveness as planning tools. The embedment in a much larger landscape of global conservation significance comes with overarching and practical implications, which are reflected in the subsequent recommendations. They include a practical recommendation to elaborate protected area maps showing relevant landscape features and infrastructure in the surroundings of the protected areas.

Recommendation 17

Consider the creation of a mechanism or platform for systematic exchange and coordination between KKFC and WEFCOM or even all three natural World Heritage properties in Thailand.

Recommendation 18

Assess all options to maintain and restore the connectivity between KKFC and Thungyai-Huai Kha Khaeng Wildlife Sanctuaries / WEFCOM, including the feasibility of an extension to KKFC to the north to incorporate current forest reserves.

Recommendation 19

Assess the feasibility of an extension of the Thungyai-Huai Kha Khaeng Wildlife Sanctuaries World Heritage property within WEFCOM as a contribution to ensuring ecological connectivity between KKFC and the Thungyai-Huai Kha Khaeng Wildlife Sanctuaries.

Recommendation 20

Elaborate maps of KKFC showing the surrounding landscape in order to facilitate discussions and planning and for submission to the Secretariat of the World Heritage Convention.

Nomination / inscription criteria

The World Heritage Committee repeatedly noted the possible applicability of natural World Heritage criterion (ix) in addition to criterion (x) in line with the IUCN evaluations. It is plausible that KKFC can also be viewed as an “outstanding example(s) representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals” in the wording of the Operational Guidelines. Comparison with Thailand’s two other natural World Heritage offer limited guidance, as there is no obvious consistency despite what appears to be comparable settings.

Rather than any obligation, the State Party has the option to propose the modification of the criteria used to justify World Heritage inscription. However, doing so would effectively trigger a costly full nomination and evaluation process with questionable benefits. In the view of the mission, this question cannot be a priority at a time when much more critical and acute issues require responses. However, the notion could and should be revisited if and when a transboundary extension into Myanmar might become an option in the future. Such a transboundary extension would require a new nomination procedure anyway and Thailand may wish to actively join the effort, adding criterion (ix) in the process. No specific recommendation is articulated beyond these considerations.

5. Bibliography and useful Links

5.1 Books, journal articles and reports

Allan, J.R., Kormos, C.F., Jaeger, T., Venter, O., Bertzky, B., Shi, Y., Mackey, B., van Merm, R., Osipova, E., Watson, J.E.M. (2018). Gaps and Opportunities for the World Heritage Convention to contribute to global Wilderness Conservation. *Conservation Biology* 32(1): 116-126. <https://doi.org/10.1111/cobi.12976>.

Ash, E., Kaszta, Ž., Noochdumrong, A., Redford, T., Chanteap, P., Hallam, C., Jaroensuk, B., Raksat, S., Srinoppawan, K., Macdonald, D.W. (2021). Opportunity for Thailand's forgotten tigers: assessment of the Indochinese tiger *Panthera tigris corbetti* and its prey with camera-trap surveys. *Oryx* 55(2): 204-211. <https://doi.org/10.1017/S0030605319000589>.

Baird, I.G., Leepreecha, P., Yangcheepsutjarit, U. (2017). Who should be considered 'Indigenous'? A survey of ethnic groups in northern Thailand. *Asian Ethnicity* 18(4): 543-562. <https://doi.org/10.1080/14631369.2016.1268044>.

Breckheimer, I.A.N., Haddad, N.M., Morris, W.F., Trainor, A.M., Fields, W.R., Jobe, R.J., Hudgens, B.R. Moody, A., Walters, J.R. (2014). Defining and evaluating the Umbrella Species Concept for conserving and restoring Landscape Connectivity. *Conservation Biology* 28(6): 1584-1593. <https://doi.org/10.1111/cobi.12362>.

Brodie, J.F., Giordano, A.J., Dickson, B., Hebblewhite, M., Bernard, H., Mohd-Azlan, J., Anderson, J., Ambu, L. (2015). Evaluating multispecies Landscape Connectivity in a threatened tropical Mammal Community. *Conservation Biology* 29(1): 122-132. <https://doi.org/10.1111/cobi.12337>.

Buergin, R. (2015). Contested Rights of Local Communities and Indigenous Peoples in Conflicts over Biocultural Diversity: The case of Karen communities in Thung Yai, a World Heritage Site in Thailand. *Modern Asian Studies* 49(6): 2022-2062. <https://doi.org/10.1017/S0026749X14000390>.

Buergin, R. (2014). Indigenous Peoples and Modern Liabilities in the Thung Yai Naresuan Wildlife Sanctuary, Thailand: A Conflict over Biocultural Diversity. In: Disko, S. & Tugendhat, H. (eds.) *World Heritage Sites and Indigenous Peoples' Rights*, pp. 245-266. Copenhagen, Denmark: IWGIA Document 129. https://www.sefut.uni-freiburg.de/pdf/Buergin2014_IWGIA.pdf.

Buergin, R. (2013). Contested Rights of Local Communities and Indigenous Peoples in the context of the Biocultural Turn in Environment and Development Discourses. University of Freiburg, SEFUT Working Paper No. 16. https://www.sefut.uni-freiburg.de/pdf/WP_16.pdf.

Buergin, R. (2011). Cultural diversity, biodiversity conservation, and modern identity: Conflicts about biocultural diversity in Thung Yai, a World Heritage Site in Thailand. University of Freiburg, Institute of Forestry Economics. Unpublished paper. https://www.sefut.uni-freiburg.de/pdf/Buergin2011_BioculturalDiversity&Modernity.pdf.

Disko, S., Tugendhat, H. (2014) (eds.) *World Heritage Sites and Indigenous Peoples' Rights*, pp. 245-266. Copenhagen, Denmark: IWGIA Document 129. <https://www.iwgia.org/images/documents/popular-publications/world-heritage-sites-final-eb.pdf>.

DNP (2022). SMART Patrol System in Protected Areas. Guidelines for Analysis of SMART Patrol in Protected Areas.

Duckworth, J.W., Sankar, K., Williams, A.C., Samba Kumar, N. & Timmins, R.J. (2016). *Bos gaurus*. The IUCN Red List of Threatened Species: e.T2891A46363646. <http://dx.doi.org/10.2305/IUCN.UK.2016-2.RLTS.T2891A46363646.en>.

Duckworth, J.W., Batters, G., Belant, J.L., Bennett, E.L., Brunner, J., Burton, J., Challender, D.W.S., Cowling, V., Duplaix, N., Harris, J.D., Hedges, S. (2012). Why South-east Asia should be the world's priority for averting imminent species extinctions, and a call to join a developing

cross-institutional programme to tackle this urgent issue. SAPIENS. Surveys and Perspectives Integrating Environment and Society 5(2). <https://journals.openedition.org/sapiens/1327>.

Emphandhu, D., Kalyawongsa, S. (2003). Human dimensions in Thailand Western Forest Complex: Challenges and Opportunities. In 5th international SAMPAA Conference at the University of Victoria (pp. 11-14). http://forprod.forest.go.th/forprod/frs-research/research_file_folder/Full_PDF_t1448520969.pdf.

ICEM (International Centre for Environmental Management). 2003. Thailand National Report on Protected Areas and Development. Review of Protected Areas and Development in the Lower Mekong Region. Indooroopilly, Queensland, Australia. <https://portals.iucn.org/library/sites/library/files/documents/2003-106-3.pdf>.

Indigenous Peoples Rights International (2021). Conservation against customary practices Criminalization of, and human rights violations against Indigenous peoples in Thailand's protected areas and forest reserves. [https://www.iprights.org/images/articles/resources/Thailand%20Conservation%20against%20customary%20practices%20Criminalization/Thailand%20Full%20Report%20\(ENG\)%20FINAL.pdf](https://www.iprights.org/images/articles/resources/Thailand%20Conservation%20against%20customary%20practices%20Criminalization/Thailand%20Full%20Report%20(ENG)%20FINAL.pdf).

IUCN (2021). IUCN technical evaluation of the World Heritage nomination of Kaeng Krachan Forest Complex, Thailand. <https://whc.unesco.org/en/list/1461/documents/>.

Jenks, K. E., Songsasen, N., Kachanasaka, B., Bhumpakphan, N., Wanghongsa, S., & Leimgruber, P. (2013). Community attitudes toward protected areas in Thailand. Natural History Bulletin of the Siam Society. <https://repository.si.edu/handle/10088/21943>.

Jitvijak, W., Ngoentip, P., Pastorini, J. (2017) Report on the Fifth Elephant Conservation Group Workshop. Gajah 46: 46-47. <https://www.asesq.org/PDFfiles/2017/Gajah%2046/46-46-WorkshopECG.pdf>.

Khawinthewong, C., Emphandhu, D. (2016). Indicator development for evaluating wildlife tourism management in Thai national parks. Thai Journal of Forestry 35(3): 100-110. <http://www.tjf.forest.ku.ac.th/?p=5567>.

Kormos, C.F., Badman, T., Jaeger, T., Bertzky, B., van Merm, R., Osipova, E., Shi, Y., Larsen, P.B. (2017). World Heritage, Wilderness and Large Landscapes and Seascapes. Gland, Switzerland: IUCN. <https://portals.iucn.org/library/sites/library/files/documents/2017-028.pdf>.

Kormos, C.F., Bertzky, B., Jaeger, T., Shi, Y., Badman, T., Hilty, J.A., Mackey, B.J., Mittermeier, R.A., Locke, L., Osipova, E., Watson, J.E.M. (2015). A Wilderness Approach under the World Heritage Convention. Conservation Letters 9(3): 228-235. <https://doi.org/10.1111/conl.12205>.

Kroutnoi, L., Sriburi, T., Wijitkosum, S., & Nuanyai, K. (2020). Determination of Stimulating Factors of Wild Asian Elephant (*Elephas maximus*) Dispersal from the Kaeng Krachan National Park to Surrounding Land Use in Thailand. Walailak Journal of Science and Technology (WJST) 17(4): 392-404. <https://doi.org/10.48048/wjst.2020.4087>.

Kroutnoi, L., Sriburi, T., Wijitkosum, S., & Nuanyai, K. (2017). Assessment of Elephant dietary Biomass at the adjoining Area of Kaeng Krachan National Park, Thailand. Applied Environmental Research 39(3): 33-40. <https://doi.org/10.35762/AER.2017.39.3.4>.

Larsen PB (2022). The Lightness of Human Rights in World Heritage: A Critical View of Rights-Based Approaches, Vernaculars, and Action Opportunities. Nordic Journal of Human Rights. <https://doi.org/10.1080/18918131.2022.2114631>.

Leepreecha, P. (2019). Becoming indigenous peoples in Thailand. Journal of Southeast Asian Studies 50(1): 32-50. <https://doi.org/10.1017/S0022463419000183>.

Meewattana, P., & Chamnarnkid, C. (2014). Wild Elephant Conservation Using Sound Waves to Obstruct Them from Plantations: a Case Study at Kui Buri District, Thailand. Suan Sunandha Science and Technology Journal 1(1): 20-24. <https://li02.tci-thaijo.org/index.php/ssstj/article/view/245/160>.

- Morton, M.F., Baird, I.G. (2019). From hill tribes to indigenous peoples: The localisation of a global movement in Thailand. *Journal of Southeast Asian Studies* 50(1): 7-31. <https://doi.org/10.1017/S0022463419000031>.
- Narang, V., Watson, S. (2021). A focus on Ivory, Rhino Horn, Tiger and Pangolins. Illegal Wildlife Trade and Consumer Demand Reduction Efforts in Thailand. TRAFFIC. <https://www.traffic.org/publications/reports/illegal-wildlife-trade-and-consumer-demand-reduction-efforts-in-thailand-a-situation-analysis/>.
- Narongwanichgarn, W., & Sangkharak, S. C. B. (2014). An investigation of wild guars Death in Kui Buri National Park, Thailand, 2013. *KKU Veterinary Journal (Thailand)*. https://vet.kku.ac.th/journal/2557_1/07-Wonganun.pdf.
- Ngoprasert, D., Lynam, A.J., Sukmasuang, R., Tantipisanuh, N., Chutipong, W., Steinmetz, R., Jenks, K.E., Gale, G.A., Grassman Jr, L.I., Kitamura, S., Howard, J. (2012). Occurrence of three felids across a network of protected areas in Thailand: prey, intraguild, and habitat associations. *Biotropica* 44(6): 810-817. <https://doi.org/10.1111/j.1744-7429.2012.00878.x>.
- Ngoprasert, D., Lynam, A., Gale, G. (2007). Human Disturbance affects Habitat Use and Behaviour of Asiatic leopard *Panthera pardus* in Kaeng Krachan National Park, Thailand. *Oryx* 41(3): 343-351. <http://dx.doi.org/10.1017/S0030605307001102>.
- Parr, J. W., Jitvijak, S., Saranet, S., & Buathong, S. (2008). Exploratory co-management interventions in Kuiburi National Park, Central Thailand, including human-elephant conflict mitigation. *International Journal of Environment and Sustainable Development* 7(3): 293-310. <http://dx.doi.org/10.1504/IJESD.2008.021901>.
- Perera, B.M.A.O. (2009). The Human-Elephant Conflict: A Review of Current Status and Mitigation Methods. *Gajah* 30: 41-52.
- Saranet, S., Tanakanjana, N. (2006). Conflict between Local Villagers and Elephants (*Elephas maximus*) at Kuiburi National Park, Thailand. Exploring the Nature of Management: 476. In: Siegrist, D., Clivaz, C., Hunziker, M. & Iten, S. (eds.) (2006). Exploring the Nature of Management. In: Proceedings of the Third International Conference on Monitoring and Management of Visitor Flows in Recreational and Protected Areas. University of Applied Sciences Rapperswil, Switzerland, 13-17 September 2006. Rapperswil, Switzerland. https://mmv.boku.ac.at/refbase/files/saranet_saowanee_t-2006-conflict_between_loc.pdf.
- Shaffer, L.J., Khadka, K.K., van den Hoek, J., Naithani, K.J. (2019). Human-elephant conflict: A review of current management strategies and future directions. *Frontiers in Ecology and Evolution*, 6, 235. <https://doi.org/10.3389/fevo.2018.00235>.
- Simcharoen, A., Simcharoen, S., Duangchantrasiri, S., Bump, J., Smith, J.L.D. (2018). Tiger and leopard diets in western Thailand: Evidence for overlap and potential consequences. *Food Webs* 15: <https://doi.org/10.1016/j.fooweb.2018.e00085>.
- Srikrachang, M., Kiatprajak, S., Bidayabha, T., Tanasarnpaiboon, S., Sang-indra, C., Saenthawee, D., & Wongsuwan, S. (2009). Wild elephant counting weeks in the King's project area, Kui Buri National Park, southwestern Thailand. *Recent Publications on Asian Elephants* 50 News Briefs 61: 32. <https://www.asesg.org/PDFfiles/Gajah/31-32-35-Srikrachang.pdf>.
- Srikrachang, M., Srikosamatara, S. (2005). Elephant Crop Raiding Problems and their Solutions at Kui Buri National Park, Southwestern Thailand. *Nat. Hist. Bull. Siam Soc.* 53(1): 87-109. https://thesiamsociety.org/wp-content/uploads/2020/04/NHBSS_053_1k_Srikrachang_ElephantCropR.pdf.
- Steinmetz, R., Srirattanaporn, S., Mor - Tip, J., Seuaturien, N. (2014). Can community outreach alleviate poaching pressure and recover wildlife in South - East Asian protected areas? *Journal of Applied Ecology* 51(6): 1469-1478. <https://doi.org/10.1111/1365-2664.12239>.

- Steinmetz, R. Seuaturien, N., Chutipong, W. (2013). Tigers, leopards, and dholes in a half-empty forest: Assessing species interactions in a guild of threatened carnivores. *Biological Conservation* 163: 68-78. <https://doi.org/10.1016/j.biocon.2012.12.016>.
- Steinmetz, R., Chutipong, W., Seuaturien, N. (2006). Collaborating to conserve large mammals in Southeast Asia. *Conservation Biology* 20(5): 1391-1401. <https://doi.org/10.1111/j.1523-1739.2006.00505.x>.
- Sukkasame, S. (2021). Livelihoods and Dwelling Security: The Challenges of Indigenous Karen People. *Journal of Community Development Research (Humanities and Social Sciences)* 14(4): 1-13. <https://doi.org/10.14456/jcdr-hs.2021.31>.
- Suksawang, S. (2018). Protected area complexes: A new approach to connectivity in Thailand. *Thai Forest Bulletin (Botany)* 46(1): 25-33. <https://doi.org/10.20531/tfb.2018.46.1.04>.
- Suttidate, N., Steinmetz, R., Lynam, A.J., Sukmasuang, R., Ngoprasert, D., Chutipong, W., Bateman B.L., Jenks K.E., Baker-Whatton M., Kitamura S., Ziolkowska E., Radeloff, V.C. (2021). Habitat connectivity for endangered Indochinese tigers in Thailand. *Global Ecology and Conservation* 29, e01718. <https://doi.org/10.1016/j.gecco.2021.e01718>.
- Tananantayot, J., Agger, C., Ash, E., Aung, S. S., Baker - Whatton, M. C., Bisi, F., Clements, G.R., Cremonesi, G., Crouthers, R., Frechette, J.L. and Gale, G.A., Ngoprasert, D. (2022). Where will the dhole survive in 2030? Predicted strongholds in mainland Southeast Asia. *Conservation Science and Practice* 4(11): e12831. <http://dx.doi.org/10.1111/csp2.12831>.
- Tanasarnpaiboon, S. (2016). Gaur (*Bos gaurus*) abundance, distribution, and habitat use patterns in Kuiburi National Park, Southwestern Thailand. The University of Nebraska-Lincoln. <https://digitalcommons.unl.edu/dissertations/AAI10102227>.
- Tantipisanuh, N., Gale, G.A. (2018). Identification of biodiversity hotspot in national level-Importance of unpublished data. *Global Ecology and Conservation* 13, e00377. <https://doi.org/10.1016/j.gecco.2018.e00377>.
- Tohsan, S., Thanachaitemwong, W. (2022). Kaeng Krachan National Park, Thailand: Existing controversies in the spatial context. *Journal of Arts and Humanities* 11(02): 43-54. <https://doi.org/10.18533/jah.v11i02.2257>.
- Tordoff, A.W., Baltzer, M.C., Fellowes, J.R., Pilgrim, J.D., Langhammer, P.F. (2012). Key biodiversity areas in the Indo-Burma hotspot: process, progress and future directions. *Journal of Threatened Taxa*: 2779-2787. <https://doi.org/10.11609/JoTT.o3000.2779-87>.
- Vandergeest, P. (2003). Racialization and citizenship in Thai forest politics. *Society & Natural Resources* 16(1): 19-37. <https://doi.org/10.1080/08941920309172>.
- WCS, DNP (2009). Restoring Tenasserim Corridor for Living Connectivity. Tenasserim Biodiversity Conservation Corridor Initiative. Supported by ADB. <https://thailand.wcs.org/en-us/About-Us/Achieve-Project/Tenasserim-Corridor.aspx>
- WCS, DNP (n.d.) Lessons Learned. The Recovery of wild Tigers and other threatened Wildlife in Western Forest Complex 2005 – 2019. <https://thailand.wcs.org/en-us/About-Us/Publications.aspx>.
- WCS Thailand and DNP (2014). Conservation Project for Elephants and other Wildlife in Kaeng Krachan National Park. Supported by ZOOH Zürich, USFWS, Liz Clairborne Art Ortenberg Foundation, The Mohamed bin Zayed Foundation.
- Wijitkosum, S. (2014). Critical Factors Affecting the Desertification in Pa Deng, Adjoining Area of Kaeng Krachan National Park, Thailand. *EnvironmentAsia* 7(2): 87-98. <http://dx.doi.org/10.14456/ea.2014.35>.
- Wijitkosum, S. (2012). Impacts of land use changes on soil erosion in Pa Deng sub-district, adjacent area of Kaeng Krachan National Park, Thailand. *Soil and Water Research* 7(1): 10-17. <https://doi.org/10.17221/32/2011-SWR>.

Wikramanayake, E., McKnight, M., Dinerstein, E., Joshi, A., Gurung, B., Smith, D. (2004). Designing a Conservation Landscape for Tigers in Human-Dominated Environments. *Conservation Biology* 18(3): 839-844. <https://doi.org/10.1111/j.1523-1739.2004.00145.x>.

Williams, C., Tiwari, S.K., Goswami, V.R., de Silva, S., Kumar, A., Baskaran, N., Yoganand, K. & Menon, V. (2020). *Elephas maximus*. The IUCN Red List of Threatened Species 2020: e.T7140A45818198. <https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T7140A45818198.en>.

5.2 Useful links

Selected UNESCO resources

<https://whc.unesco.org/>

<https://whc.unesco.org/en/guidelines/>

<https://whc.unesco.org/en/list/1461/> (Kaeng Krachan Forest Complex)

<https://whc.unesco.org/en/list/1461/documents/>

<https://whc.unesco.org/document/188151>

<https://whc.unesco.org/document/184790>

<https://whc.unesco.org/document/188262>

<https://whc.unesco.org/document/187092>

<https://whc.unesco.org/en/list/590> (Dong Phrayayen-Khao Yai Forest Complex)

<https://whc.unesco.org/en/list/591/> (Thungyai-Huai Kha Khaeng Wildlife Sanctuaries)

<https://whc.unesco.org/en/nominations/>

<https://whc.unesco.org/en/statesparties/th>

Selected resources on conservation in Thailand

<http://www.mnre.go.th/en/index>

<https://thailand.wcs.org/en-us/Initiatives/SMART-Patrol-System/SMART-Patrol-System-in-Kaeng-Krachan-National-Park.aspx>

<https://thailand.wcs.org/en-us/Wild-Places/Kaeng-Krachan-Forest-Complex.aspx>

<https://wildlifefund.or.th/en/home/>

<https://www.grida.no/resources/1669>

<https://www.rdpb.go.th/en/projects/other-important-projects-c38/the-royal-initiated-kui-buri-national-forest-reser-v7467>

<https://www.thainationalparks.com/>

<https://www.thainationalparks.com/kaeng-krachan-national-park>

<https://www.westernforest.org/en/Default.htm>

https://www.wwf.or.th/en/our_work/wildlife/the_kuiburi_wildlife_conservation_project/

<https://www.wwf.or.th/en/wildlifetradecampaignth/factsheets/>

IUCN contributions towards a better understanding of planned construction Mae Wong National Park

<https://www.iucn.org/content/benefits-mae-wong-dam-unlikely-outweigh-environmental-costs-iucn-report-says>

<https://portals.iucn.org/library/node/45735>

Selected United Nations resources on indigenous peoples

<https://cipt.thaiportal.info/> (in Thai language)

<https://impect.or.th/> (in Thai language)

<https://www.ohchr.org/>

<https://www.ohchr.org/en/special-procedures/sr-indigenous-peoples>

<https://www.un.org/development/desa/indigenouspeoples/about-us.html>

<https://www.un.org/development/desa/indigenouspeoples/unpfii-sessions-2.html>

https://www.ohchr.org/en/ohchr_homepage

<https://www.ohchr.org/en/topic/indigenous-peoples>

<https://www.ohchr.org/en/special-procedures/sr-indigenous-peoples>

<https://www.ohchr.org/en/documents/thematic-reports/a77238-protected-areas-and-indigenous-peoples-rights-obligations-states>
<https://www.ohchr.org/en/indigenous-peoples>
<https://www.ohchr.org/en/hrc-subsidaries/expert-mechanism-on-indigenous-peoples>
<https://www.undocs.org/Home/Mobile?FinalSymbol=A%2FHRC%2FEMRIP%2F2019%2F2%2FRev.1&Language=E&DeviceType=Desktop&LangRequested=False>
<https://www.ohchr.org/en/calls-for-input/free-prior-and-informed-consent-report>
<https://www.ohchr.org/en/press-releases/2021/07/thailand-un-experts-warn-against-heritage-status-kaeng-krachan-national-park>

Selected resources on rights and indigenous peoples

<http://www.cusri.chula.ac.th>
<https://aippnet.org/>
<https://ejatlas.org/print/land-conflict-between-the-state-and-karen-group-in-kaeng-krachan-national-park-thailand>
<https://www.greenpeace.org/southeastasia/story/44375/from-the-heart-thailands-guardians-of-the-forest-speak-up-vow-to-return-their-ancestral-home/>
<https://www.iucn.org/news/secretariat/202107/iucn-statement-inscription-kaeng-krachan-forest-complex-world-heritage-list>
<https://www.iwgia.org/>
<https://www.iwgia.org/en/news/3996-protect-the-indigenous-karen-to-return-home-safely.html>
<https://www.iwgia.org/en/thailand/3610-iw-2020-thailand.html>
<https://www.nhrc.or.th/Home.aspx?lang=en-US>
https://www.youtube.com/watch?time_continue=5&v=xgBqgSkWV5o&feature=emb_title

Annexes

Annex 1: Terms of Reference

IUCN Advisory Mission to Kaeng Krachan Forest Complex (Thailand), 21-28 November 2022

Advisory mission

According to the *Operational Guidelines*, Advisory missions are understood to be “missions providing expert advice to a State Party on specific matters” (*Operational Guidelines* footnote 2 of Paragraph 28) and are an opportunity for the State Party to receive technical external view to aid future activities and/or decision-making. The *Operational Guidelines* furthermore specify that the “entire costs of Advisory missions are borne by the State Party inviting the mission, except where the State Party is eligible for relevant International Assistance or funding from the new budget line for Advisory missions approved by Decision 38 COM 12”.

Background

At its 44th session in Decision 44 COM 8B.7 (annex 1), the World Heritage Committee inscribed Kaeng Krachan Forest Complex (Thailand) on the World Heritage List under criterion (x) on the understanding that the State Party has addressed the issues raised in Decision 43 COM 8B.5, in which the State Party was requested to:

- i) Revise the boundaries of the property based on agreement between the States Parties of Thailand and Myanmar,
- ii) Prepare and submit a revised comparative analysis demonstrating that the reduced area of the nominated property would be sufficient to meet criterion (x), including the related conditions of integrity, protection and management,
- iii) Demonstrate that all concerns have been resolved, in full consultation with the local communities, in accordance with paragraph 123 of the Operational Guidelines.

Furthermore, the Committee’s decision to inscribe the site was on the understanding that the State Party will continue to address the following:

- i) Mutual understanding on the revised boundaries of the property based on agreement between the States Parties of Thailand and Myanmar,
- ii) Ensuring related conditions of integrity, protection and management,
- iii) Ensuring consultations with the local communities on their livelihoods and their active engagement in management of the property.

The Committee also encouraged the State Party “to strengthen dialogue and consultation with IUCN in preparation for a regular review of the general state of conservation, including expert missions”, which follow on from Committee Decision 43 COM 8B.5 that recommended the State Party to invite an IUCN Advisory mission.

In this context, the State Party submitted a letter dated 21 December 2021 to the World Heritage Centre, inviting an IUCN Advisory mission to the property during the period February – May 2022.

Tasks

An Advisory mission to Kaeng Krachan Forest Complex (KKFC) at the invitation of the State Party of Thailand will be conducted from 21 November 2022 to 28 November 2022 as an opportunity for dialogue and to offer technical guidance, for the State Party’s consideration, covering the following:

1. Assess the state of conservation of the property by:
 - a. Advising on the property’s boundaries that ensures connectivity and opportunities with the larger surrounding conservation area;
 - b. Advising on the boundaries and management of the property’s buffer zone;
 - c. Assessing the status and effectiveness of the 2019 amendments to the National Park Act and Wildlife Conservation and Protection Act with regards to the park management

- zonation, land use and co-management arrangements, and discuss any other relevant laws and legislations that may further support such co-management;
- d. Assessing the status of effective and inclusive participation of local communities and ethnic minorities in the management of the property to support sustainable livelihoods and engender participatory management approaches that safeguard Outstanding Universal Value (OUV) of the property;
 - e. Discussing the implications of the border setting and describing options for future action in protecting the biological connectivity in the transboundary landscape that adjoins KKFC;
 - f. Assessing the population status of key floral and faunal attributes contributing to OUV, the efficacy of monitoring mechanisms being implemented within the property, and the measures in place to protect the connectivity of the property with the larger surrounding ecosystem to ensure the protection of its OUV;
 - g. Assessing the impact of existing and planned infrastructure development, including dams and roads.
2. Hold consultations with the Thai authorities at national, district and local levels, including representatives of the Department of National Parks, Wildlife and Plant Conservation (DNP), national park managers, Community Development Department, Royal Forest Department, Royal Irrigation Department, and Border Policy/Army. In addition, the mission should hold consultations with stakeholders as relevant, including but not limited to: (i) representatives of local communities who live within and adjacent to the property; (ii) representatives from the Protected Area Committee; (iii) relevant non-governmental organizations (NGOs), civil society organizations (CSOs), universities and institutes as well as UNESCO; and (iv) representatives from the private sector and tourism industry. The mission expert should also consult with IUCN's Asia Regional Office and Thailand Country Programme.
 3. Based on site visits, the assessment of available information and discussions with the State Party representatives and stakeholders, prepare a concise report on the findings and recommendations of this Advisory mission within six weeks of completing the field visit.

In preparation for the Advisory mission, the State Party shall provide IUCN, prior to the mission, with all necessary background technical material and relevant information and maps, to consider the present conservation status of the property. These documents shall be provided in English as one of the working languages of the Convention. In case of substantial documents, at least summaries shall be provided in English. The State Party shall also develop a mission itinerary that will allow the Advisory mission to fulfill the above tasks.

The full and final responsibility for the mission report to be issued will be taken by IUCN.

Annex 2: Mission Agenda as conducted

Date	Time	Activities	Participants
Day 1			
Sun, 20 Nov 2022		Mission expert departs from FRA (Germany) Flight TG921	
Day 2			
Mon, 21 Nov 2022	06:25	Mission expert arrives at Suvarnabhumi International Airport (Thailand)	Ms. Sunee Sakseau, Director of Foreign Affairs Division, DNP
	13:30	<p>Briefing at Department of National Parks, Wildlife and Plant Conservation (DNP) with Director General DNP, senior DNP staff and representatives of various institutions.</p> <p>1. Welcome Speech by Ambassador Sihasak Phuanketkeow, Head of Thai Delegation to the World Heritage Committee and the department executives.</p> <p>2. Mission Expert self-introduction and overview of scope, ToR and objectives of the IUCN Advisory Mission.</p> <p>3. Presentation of the IUCN Advisory Mission Agenda by Ms Sunee Sakseau, Director, Division of Foreign Affairs.</p> <p>4. Discussion, exchange of information and Q&A session.</p>	<p>Ms. Supranee Kampongsun, Head of IUCN Thailand Programme</p> <p>Mr. Prateep Meekatitham, Representative of IUCN Thailand Programme</p> <p>Mr. Mana Pernphun, Director of the Wildlife Conservation Division, Protected Areas Regional Office 3, DNP</p> <p>Mr. Samphan Ngampraphat, Director of the National Parks Division, Protected Areas Regional Office 3, DNP</p> <p>Mr. Thammanun Temchai, Chief of Research and Innovation Development, Petchaburi, DNP</p> <p>Mr. Nared Sueturean, Representative of WWF Thailand</p> <p>Mr. Phinij Romporee, Chief Executive of the Subdistrict Administrative Organization</p> <p>Mr. Nattayut Romporee, Banbung Subdistrict Headman</p> <p>Mr. Chusil Cheechung, Moo. 1 Village Headman</p> <p>Mr. Nattapon Boonyong, Representative of Karen Network for Culture and Environment</p>
Day 3			
Tue, 22 Nov 2022	06:00	Departure to Nhong Ta Dung Forest Protection Unit, Mae Nam Phachi Wildlife Sanctuary, Ratchaburi Province	
	07:00	Breakfast en route	

	09:00	Stop-over at ranger station	
	10:00	<p>Departure to proposed location of Nhong Ta Dung Reservoir Project (Ban Purakam Village / Community):</p> <ol style="list-style-type: none"> 1. Welcome speech by Superintendent of Mae Nam Phachi Wildlife Sanctuary and briefing on Nhong Ta Dung Reservoir Project. 2. Departure to Pachee Watershed Unit, incl. the area, which would be flooded by Nhong Ta Dung Reservoir. 3. Departure to Ban Purakam Village and meeting with community representatives. 4. Departure to Nhong Ta Dung Forest Protection Unit. 	<p>Meeting with (representatives of) Ban Purakam Community.</p> <p>Ms. Sunee Saksue, Director of Foreign Affairs Division, DNP</p> <p>Ms. Supranee Kampongsun, Representative of IUCN Thailand</p> <p>Mr. Prateep Meekatitham, Representative of IUCN Thailand</p> <p>Mr. Mana Poempoon, Director of the Wildlife Conservation Division, Protected Areas Regional Office 3, DNP</p>
	12:30	Lunch at Chaloem Phrakiat Thai Prachan National Park.	
	13:30	<p>Presentation on management of Mae Nam Phachi Wildlife Sanctuary Wildlife Sanctuary and Chaloem Phrakiat Thai Prachan National Park, status of proposed Nhong Ta Dung Reservoir and participation of PAC:</p> <ol style="list-style-type: none"> 1. Protecting the area, tourism management and encouraging participation of PAC by Mr. Phuwiwat Hiransri from Chaloem Phrakiat Thai Prachan National Park. 2. Protection, wildlife management and encouraging the participation of PAC by Mr. Choopol Kaewket Mae Nam Phachi Wildlife Sanctuary. 3. Cooperation to extend the area protected in the Kaeng Krachan Forest Complex by Mr. Choopol Kaewket (Wildlife Conservation Office) and Mr. Witsanuwit Thong-on (WWF Thailand). 4. Status of Nhong Ta Dung Reservoir Project by Royal Irrigation Department. 5. Q&A session. 	<p>Mr. Thammanun Temchai, Chief of Research and Innovation Development, Petchaburi, DNP</p> <p>Mr. Nared Sueturean, Representative of WWF Thailand</p> <p>Director of the Wildlife Conservation Division, Protected Areas Regional Office 3, DNP</p> <p>Director of the National Parks Division, Protected Areas Regional Office 3, DNP</p> <p>Mr. Phinij Romporee, Chief Executive of the Subdistrict Administrative Organization</p> <p>Mr. Nattayut Romporee, Banbung Subdistrict Headman</p> <p>Mr. Chusil Cheechung, Moo.1 Village Headman</p> <p>Mr. Nattapon Boonyong, Representative of Karen Network for Culture and Environment</p>
	16:00	Departure to NANA Resort Kaeng Krachan	
	18:00	Dinner / NANA Resort Kaeng Krachan	Director, KKNP
Day 4			
Wed, 23 Nov 2022	07:00	Breakfast at NANA Resort Kaeng Krachan	

	08:00	<p>Departure to Kaeng Krachan National Park, meeting and presentation by DNP officers and concerned units:</p> <ol style="list-style-type: none"> 1. Tackling the Issue of Living Arable Land in protected areas according to article 64 and 65 of National Parks Act, B.E. 2562 (2019) and Article 121 of Wildlife Conservation and Protection Act, B.E.2562 (2019) by Mr. Werayut Wanlurtsakl, Protected Area Rehabilitation and Development Office. 2. National Parks Area Management Plan according to Article 18 of National Parks Act by Mr. Komkrit Settabuppa, National Park Office. 3. Wildlife Sanctuary Area Management Plan according to Article 52 of the applicable Act by Mr. Pramort Arakit, Wildlife Conservation Office. 4. The Issue of Living Land Arable Land in protected areas according to Article 64 and of National Parks Act. Protecting the area, tourism management and encouraging participation of PAC by Mr. Somjet Chantana, Kaeng Krachan National Park. 5. Q&A session. 	<p>Ms. Sunee Saksue, Director of Foreign Affairs Division, DNP</p> <p>Ms. Supranee Kampongsun, Representative of IUCN Thailand</p> <p>Mr. Prateep Meekatitham, Representative of IUCN Thailand</p> <p>Ms. Apinya Saisamorn , Representative of WCS Thailand</p> <p>Mr. Naret Sueaturien, Manager of the Kuiburi Wildlife Conservation Project, WWF Thailand</p> <p>Mr. Witsanuwit Thong-on, Representative of WWF Thailand</p> <p>Mr. Phichai Watcharawongpriboon, Director of Protected Areas Regional Office 3 (Phetchaburi), DNP</p> <p>Mr. Pratan Sangwon, Director of the National Parks Division, Protected Areas Regional Office 3 (Phetchaburi), DNP</p>
	12:00	Lunch at Kaeng Krachan National Park	Kaeng Krachan District Chief
	13:00	Meeting and presentation by DNP officers and concerned units (cont'd)	<p>Village Headman, Village no. 8, Tha Ruea Village, Kaeng Krachan Subdistrict</p> <p>Section Chief of Nong Phlub Head Water Management, DNP</p> <p>Chairman of Phetchaburi River Conservation Network</p> <p>A.H. Link School Director</p> <p>Kaeng Krachan Community Development Specialist</p> <p>Director of Forest Resource Management Bureau 10 (Phetchaburi), RFD</p> <p>Commander of Tub Phra Ya Suea Task Force (Infantry Division 9th)</p> <p>Director of The Royal Initiative Discovery Institute (RIDI)</p> <p>Chairman of Seub Nakhasathien Foundation</p>

			Director of Kaeng Krachan Non-Formal and Informal Education Office Director of Kaeng Krachan Non-Formal and Informal Education Office UNDP Representative, Thailand
	15:00	Survey of wildlife diversity in Huay Kom Krit Area	Ms. Sunee Saksue, Director of Foreign Affairs Division, DNP 2. Mr. Thammanun Temchai, Chief of Research and Innovation Development, Petchaburi, DNP 3. Mr. Somjet Chantana, Chief of Kaeng Krachan National Park, DNP 4. Representative of IUCN Thailand
	18:00	Departure to and dinner at NANA Resort Kaeng Krachan	
Day 5			
Thu, 24 Nov 2022	07:00	Breakfast at NANA Resort Kaeng Krachan	
	08:00	Departure to Pong Luek Village.	Ms. Sunee Saksue, Director of Foreign Affairs Division, DNP
	10:00	Presentation on Pong Luek Village community Quality of Life Development Project, Pid Thong Lang Phra Project meeting room	Ms. Supranee Kampongsun, Representative of IUCN Thailand
	12:00	Lunch at Pong Luek Village.	Mr. Prateep Meekatitham, Representative of IUCN Thailand
	13:00	Survey of the area and visit of various projects en route. Discussions with community leaders and members.	Mr. Thammanun Temchai, Chief of Research and Innovation Development, Phetchaburi, DNP Mr. Phichai Watcharawongpriboon, Director of Protected Areas Regional Office 3 (Phetchaburi), DNP Mr. Somjet Chantana, Chief of Kaeng Krachan National Park, DNP Pong Luek villagers Bang Kloy villagers (separate community meetings)
	17:00	Departure to and dinner at NANA Resort Kaeng Krachan	
Day 6			

Fri, 25 Nov 2022	05:30	Departure to National Park Protected Unit 19 (Panoenthung)	Ms. Sunee Saksue, Director of Foreign Affairs Division, DNP
	07:30	Breakfast at National Park Protected Unit 19 (Panoenthung)	Ms. Supanee Kampongsun, Representative of IUCN Thailand
	08:30	Survey of Nature Walk Trail at Kaeng Krachan National Park	Mr. Prateep Meekatitham, Representative of IUCN Thailand
	12:00	Lunch at Kaeng Krachan National Park	Mr. Thammanun Temchai, Chief of Research and Innovation Development, Phetchaburi, DNP
	13:30	Departure to The Royal-initiated Management of Human-Elephant Conflict at Padeng Kaeng Krachan, Petchaburi	Mr. Phichai Watcharawongpriboon, Director of Protected Areas Regional Office 3 (Phetchaburi), DNP Mr. Somjet Chantana, Chief of Kaeng Krachan National Park, DNP 7. Ms. Apinya Saisamorn, Representative of WCS Thailand
	15:30	Departure to Kui Buri Hotel and Resort at Kui Buri, Prachuap Khiri Khan	
	17:00	Dinner at Kui Buri Hotel and Resort	
Day 7			
Sat, 26 Nov 2022	07:00	Breakfast at Kui Buri Hotel and Resort	
	09:00	Departure to Kui Buri National Park for meeting and presentation on Kui Buri National Park Management: 1. Protection of the National Park, Tourism Management and the participation and cooperation between Protected Area Committee and Kui Buri National Park by Ms. Supon Ponpan, Kui Buri National Park. 2. The conservation of natural resources in the Kaeng Krachan Forest Complex by Mr. Naret Sueaturien, WWF Thailand. 3. Q&A session.	Ms. Sunee Saksue, Director of Foreign Affairs Division, DNP Ms. Supanee Kampongsun, Representative of IUCN Thailand Mr. Prateep Meekatitham, Representative of IUCN Thailand Mr. Phichai Watcharawongpriboon, Director of Protected Areas Regional Office 3 (Phetchaburi), DNP
	13:00	Field visit to Kui Buri Elephant Smart Early Warning System	Mr. Supisit Chitwichak, DTL - Rewilding, WWF Thailand
	14:00	Visit of facilities of the Kui Buri Elephant Smart Early Warning System (camera trap and early warning system)	Mr. Witsanuwit Thong-on, Representative WWF Thailand
	16:00	Grassland management for wildlife at Kui Buri National Park	Kui Buri Wildlife Eco-Tourism Chairman

			National Reserved Forest Kuiburi Forest Area Conservation and Rehabilitation From the Royal Initiative Project Manager (Gunchon Project) Representative of The 15th Military Circles (Ruam Thai Village)
	17:00	Departure to Kui Buri Hotel and Resort	
	18:00	Dinner at Kui Buri Hotel and Resort	
Day 8			
Sun, 27 Nov 2022	07:00	Breakfast at Kui Buri Hotel and Resort	
	09:30	Departure to Kui Buri National Park for brainstorming and preliminary conclusions of the mission with the superintendent and staff	
	12:00	Lunch at Kui Buri National Park	
	13:00	Departure to Bangkok	
Day 9			
Mon, 28 Nov 2022	09:30	Debriefing (preliminary findings) by Mission Expert to executives of Department of National Parks, Wildlife and Plant Conservation and relevant officers at the Department of National Parks, Wildlife and Plant Conservation: Overview of the Advisory Mission by Director of Foreign Affairs Division, DNP. Thank you remarks by Deputy Director General, DNP.	Dr. Rungnapar Pattanavibool, Deputy Director-General, DNP Ms. Sunee Saksue, Director of Foreign Affairs Division, DNP Mr. Pratheep Mekatitam, IUCN Thailand Programme Online participation by Ms. Montira Horayangura Unakul and Mr. Jing Feng, UNESCO Bangkok Full list available from DNP.
- Mission in Thailand ends -			
Day 10			
Tue, 29 Nov 2022	12:00	Return home of Mission Expert	

Annex 3: People additionally consulted

Listed in alphabetical order by last name. Please note that additional colleagues consulted wished to remain anonymous and are therefore not listed here.

Assoc. Prof. Dr. Narumon Arunotai, Social Research Institute, Chulalongkorn University, Bangkok Thailand.

Dr. Reiner Buergin, University of Freiburg, Germany

Nigel Crawhall, UNESCO Paris, France

Feng Jing, UNESCO Bangkok Office

Montira Horayangura Unakul, UNESCO Bangkok Office

Annex 4: World Heritage Committee Decision 44 COM 8B.7

Extended 44th session of the World Heritage Committee Fuzhou (China) / Online meeting 16-31 July 2021

Source: whc.unesco.org/en/decisions/7926

The World Heritage Committee,

1. Having examined Documents WHC/21/44.COM/8B.Add and WHC/21/44.COM/INF.8B2.Add,
2. Recalling Decisions 39 COM 8B.5, 40 COM 8B.11 and 43 COM 8B.5 adopted at its 39th (Bonn, 2015), 40th (Istanbul/UNESCO Headquarters, 2016) and 43rd (Baku, 2019) sessions respectively,
3. Inscribes Kaeng Krachan Forest Complex, Thailand, on the World Heritage List on the basis of criterion (x);
4. Takes note of the following provisional Statement of Outstanding Universal Value:

Brief synthesis

The Kaeng Krachan Forest Complex (KKFC) lies in the Tenasserim Range near the border area of Thailand and Myanmar. The Forest complex covers vast forest areas encompassing parts of three (3) provinces in the western part of Thailand, namely Ratchaburi, Phetchaburi, and Prachuap Khiri Khan, and covers four protected areas which are three national parks and one wildlife sanctuary. Located in the Indo-Malayan ecoregion, the nominated property encompasses a total area of 408,940 ha. At the macro scale, the complex has rich and varied biological diversity as a result of the amalgamation of four zoogeographical sub-regions (Sundaic, Sino-Himalayan, Indochinese and Indo-Burmese), as well as four floristic provinces (Indo-Burmese or Himalayan, Indo-Malaysian, Annamatic, and Andamanese). In addition to the macro-diversity, at the micro scale, the diverse geological characteristics and highly variable topography contribute to exceptionally high habitat diversity per unit area. Tangible evidence for exceptional biodiversity values is also clearly demonstrated with the presence of endemic and endangered species. The KKFC also maintains significant populations of key and valuable species that are recognised as being globally significant and endangered. IUCN identifies the nominated complex as a regional important area for tiger conservation landscape, important bird habitats, as well as an important area for elephant conservation and priority site for Indo-Burma hotspots.

Criterion (x): The nominated property meets this criterion because of its specific location reflecting the unique mixture of different zoogeographical realms and floristic provinces. It is the northernmost point for many species from the south and it is the southernmost point for species from the north. This macro diversity is complemented by a highly variable topography that brings about many different habitats per unit. The area's rich biodiversity is also indicated by the presence of at least 720 known wild animal species, as well as rare and endemic plant species.

Of flora species, there is *Prunus kaengkrachanensis* which is a new species reported in 2015 and is found only in the KKFC. Critically endangered species (CR) such as *Kamettia chandeei*, *Magnolia gustavii*, and *Aquilaria malaccensis* are also found in this complex. For *Magnolia gustavii*, it was first reported in 1891 and found in India's Assam region and the northern part of Myanmar. Since then, there had been no report of the species for more than 100 years and it was believed that the species was extinct in the wild. However, it was discovered again in 1998 in KKNP, which is located around 2,000 km. away from the original discovery area. *Geostachys smitinandii* (VU) is found only in the KKFC and the Dong Phrayayen – Khao Yai Forest Complex Natural World Heritage site of Thailand. The complex is also the world's only home to the plant species *Trichosanthes phonsenae*, first discovered there in 2003.

In addition, the complex maintains healthy populations of globally important endangered wildlife species. Of fauna species, one of the most important evidence is the presence of the critically endangered species, Siamese crocodile (*Crocodylus siamensis*), in Kaeng Krachan National Park (KKNP). The KKNP is one of a few locations in only five countries worldwide where such species still exist in the wild. This can allow for the natural and pure breed of the species. Critically endangered species (CR) such as Sunda pangolin (*Manis javanica*), Elongated tortoise (*Indotestudo elongata*), and Asian giant tortoise (*Manouria emys*) are also found in this complex. In addition, there are also important populations of other endangered species such as Banteng (*Bos javanicus*), Asian elephant (*Elephas maximus*), tiger (*Panthera tigris*), Asiatic wild dog (*Cuon alpinus*); and vulnerable species such as Asian black bear (*Ursus thibetanus*), Asian tapir (*Tapirus indicus*), southern serow (*Capricornis sumatraensis*), Gaur (*Bos gaurus*) and stump-tailed macaque (*Macaca arctoides*). A complete suite of top carnivores has been identified in the area including eight species of Felidae.

Integrity

The KKFC protects the head watersheds of many important rivers such as Phetchaburi, Kui Buri, Pranburi, Phachi, and Mae Klong Rivers. Some of these rivers provide water to the Sam Roi Yod National Park (Ramsar Site), which is one of Thailand's most well-known areas for water birds. The nominated property encompasses an area of 408,940 ha located in Ratchaburi, Phetchaburi, and Prachuap Khiri Khan provinces. It is connected to a forest area in Myanmar with the Tenasserim Ranges as a natural border between the two countries spanning approximately 292 kilometres from the north to the south of the property.

There are six forest types which cover more than 96% of the nominated area. Dry evergreen forest covers a majority of the area, about 65%. Other types of the forest are Mixed Deciduous Forest, Montane Evergreen Forest, Moist Evergreen Forest, Secondary Forest, and Dry Dipterocarp Forest. The area's topography is rugged with high mountains in the west and rolling hills to the east. Elevation ranges between 37 and 1,231 meters above sea level. The climate is influenced by the north-eastern and south-western monsoon winds. The rainy season generally starts in mid-May and ends in mid-October. The winter season spans from mid-October to mid-February while the dry season goes from mid-February to mid-May.

As a result of complex topography, climate and ecosystems, there are more than 700 animal species reported in the complex, including 4 CR species, 8 EN species, and 23 VU species. This is an indicator of high habitat suitability for fauna. The biodiversity of flora and fauna is extremely rich, safe, and sufficient for the species to thrive. The integrity is very much intact with full protection of the KKFC area under a sound management plan with all relevant laws and regulations.

Protection and management requirements

The four components comprising the KKFC are well protected under relevant legislations. The four components include a wildlife sanctuary (Mae Nam Phachi) protected under the Wildlife Protection and Preservation Act B.E. 2535 (1992) and its amendment and three national parks (Chaloem Phrakiat Thai Prachan, Kaeng Krachan and Kui Buri) protected under the National Park Act B.E. 2504 (1961) and its amendment. The Kaeng Krachan and Kui Buri National Parks are connected by Kui Buri Forest Reserve and the Army Reserve Zone. This corridor is also regarded as a protected area under the Forest Reserve Act B.E. 2507 (1964) and the Military Reserve Zone Act B.E. 2478 (1935). The total area of the nominated property is 408,940 ha. The main purpose of the protected area designations is to safeguard and preserve the overall ecological integrity of the area, including the outstanding wildlife and species values and forested watersheds for Phetchaburi and Prachuap Khiri Khan provinces. The protected area administration consists of a Superintendent Unit with one or more deputies for each component as well as patrol stations located in and around the boundaries.

The adoption of the National Park Act B.E. 2562 (2019) and Wildlife Conservation and Protection Act B.E. 2562 (2019) represents a significant paradigm shift in Thailand's environmental conservation policy to strike a balance between natural conservation and sustainable utilization of resources. The Acts aim to legally permit local communities to reside in the property's protected areas while also being able to make use of forest products for their sustainable livelihoods. Moreover, the legislations will help promote the participation of local communities in important decision-making processes related to the KKFC, including protected area management plan, land tenure survey, and legal mechanisms to enhance understanding between the local communities and the Thai Government officials concerning land use.

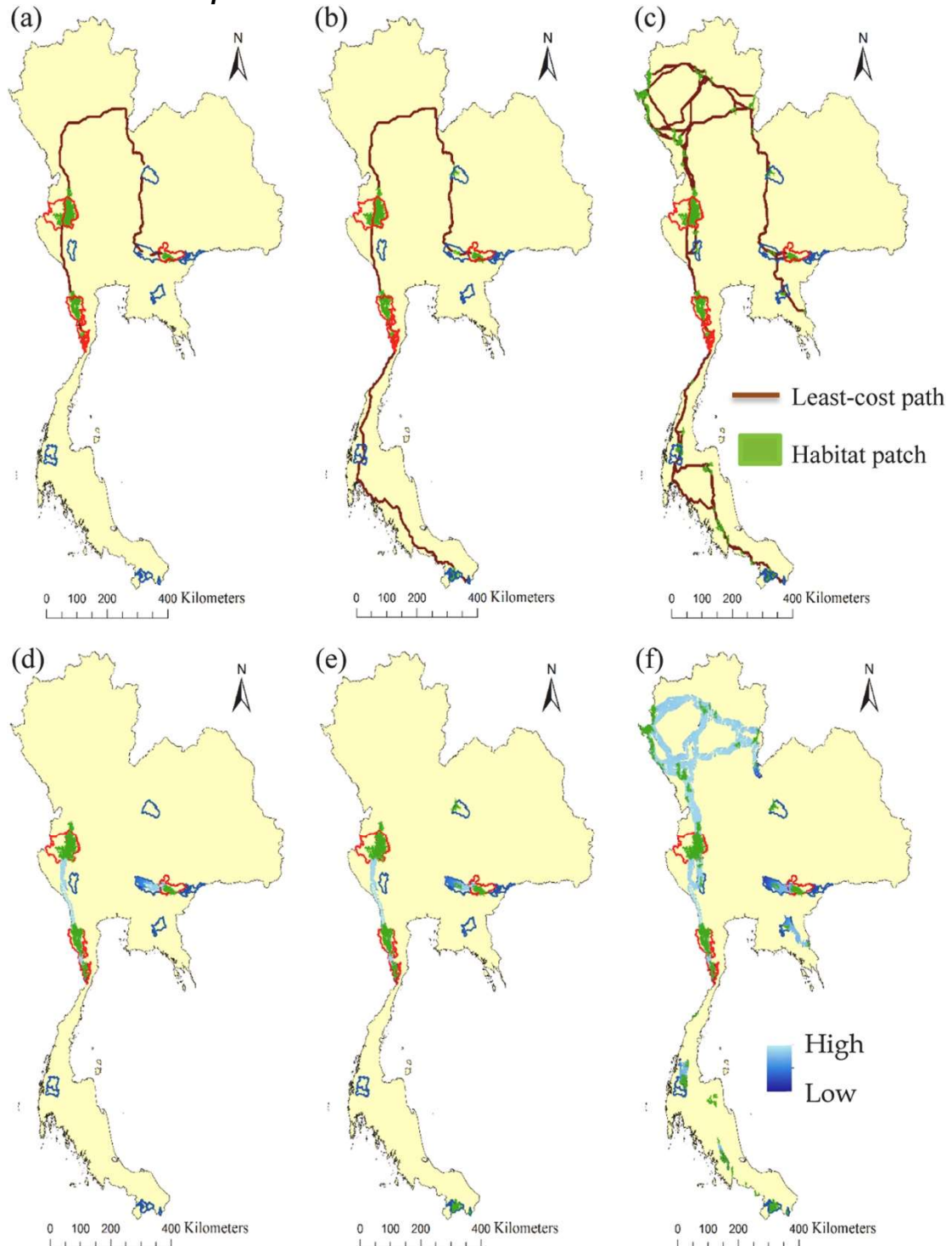
The management and protection regime continue to apply across the protected areas comprising the forest complex, regardless of the reduced nominated area, which remains subject to the same legislation. This also applies to patrols for which the additional information by the State Party provided details on patrolling areas and frequencies. The patrols cover about half of KKFC, whilst being concentrated on areas of vulnerability to threats as well as high biodiversity areas. Less accessible areas are patrolled from the air with targeted drop-in patrol as well as foot patrols.

Thus, the natural values of the nominated property are provided with adequate legal protection so that protection requirements continue to be met. In addition, the management capacity and conservation effectiveness of the nominated property also meet the requirements of the Operational Guidelines.

5. Notes that the decision to inscribe the property is made on the understanding that the State Party has addressed the issues raised in Decision **43 COM 8B.5**, thus fulfilled the requirements of the Operational Guidelines, and will continue the work in progress on the following issues:
 - a) Mutual understanding on the revised boundaries of the property based on agreement between the States Parties of Thailand and Myanmar,

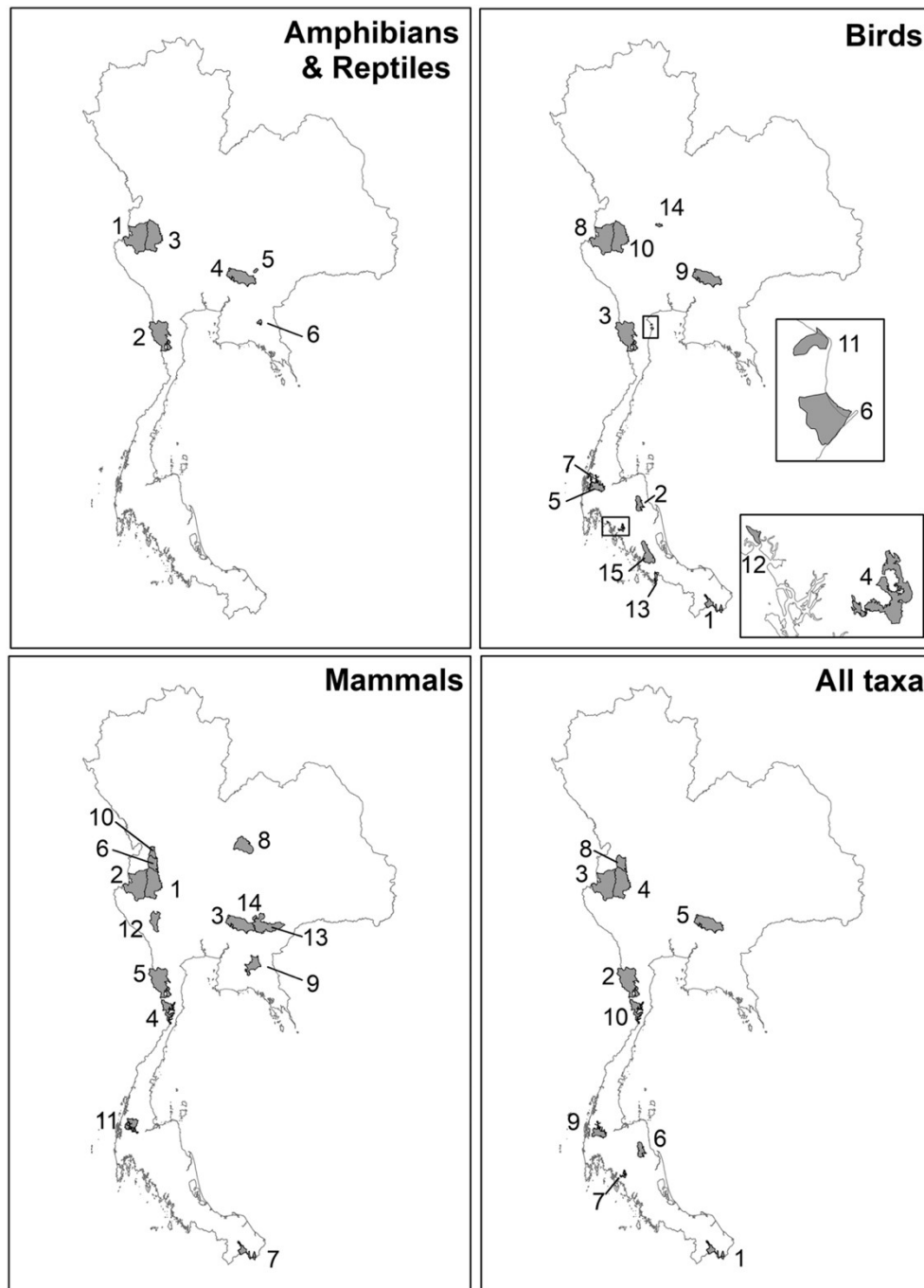
- b) Ensuring related conditions of integrity, protection and management,
 - c) Ensuring consultations with the local communities on their livelihoods and their active engagement in management of the property;
- 6. Notes with appreciation the commitment and continued efforts by the State Party in working with local authorities and communities in safeguarding the property;
- 7. Encourages the State Party to identify opportunities to collaborate with the State Party of Myanmar in transboundary conservation and management of the highly significant nature conservation values of the region, with a view to consider a future extension of the property;
- 8. Also encourages the State Party to strengthen dialogue and consultation with IUCN in preparation for a regular review of the general state of conservation, including expert missions;
- 9. Requests the State Party to submit to the World Heritage Centre by **1 December 2022** a report on the implementation of the above-mentioned recommendations for examination by the World Heritage Committee at its 46th session.

Annex 5: Selected Maps



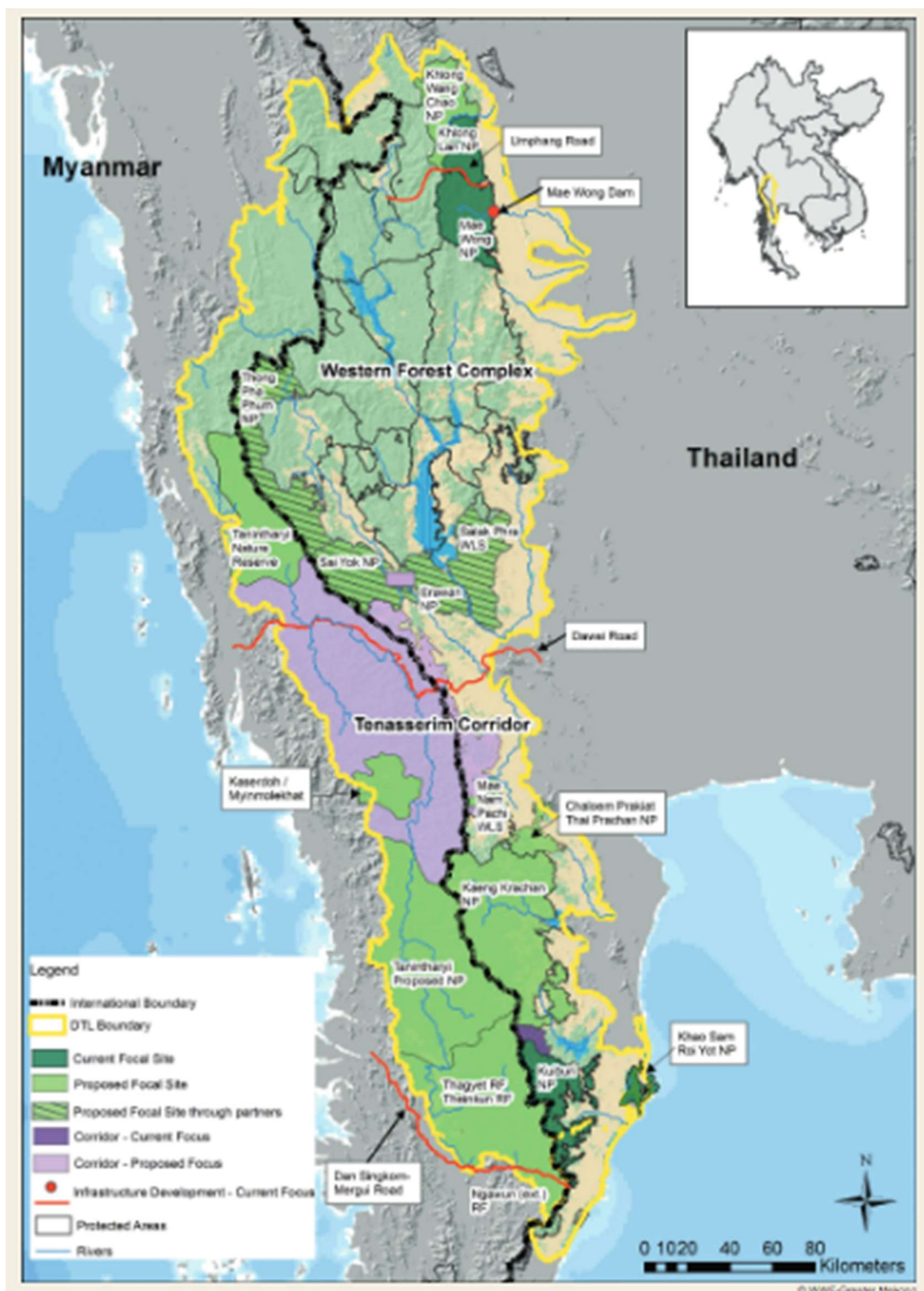
Annexed Map 1: Tiger connectivity across Thailand

(a) habitat patches with tiger occurrences at the time of our survey (green) and their least-cost path corridors (brown line). (b) habitat patches in the fifteen protected areas surveyed and their least-cost path corridors (c) potential habitat patches and their least-cost path corridors; and the same three sets of habitat patches with circuit theory corridors with 10 km (e-f), showing high probability of tigers' movements (light blue) and low probability of tigers' movements (dark blue). Source: Suttidate et al. 2021; open access at <https://doi.org/10.1016/j.gecco.2021.e01718>.



Annexed Map 2: Hotspot areas for selected taxa in Thailand

Hotspot areas of amphibians and reptiles (upper left), birds (upper right), mammals (lower left) and all taxa combined (lower right). Source: Tantipisanuh et al. 2018, open access at <https://doi.org/10.1016/j.gecco.2018.e00377>.



Annex 6: Photographic Documentation



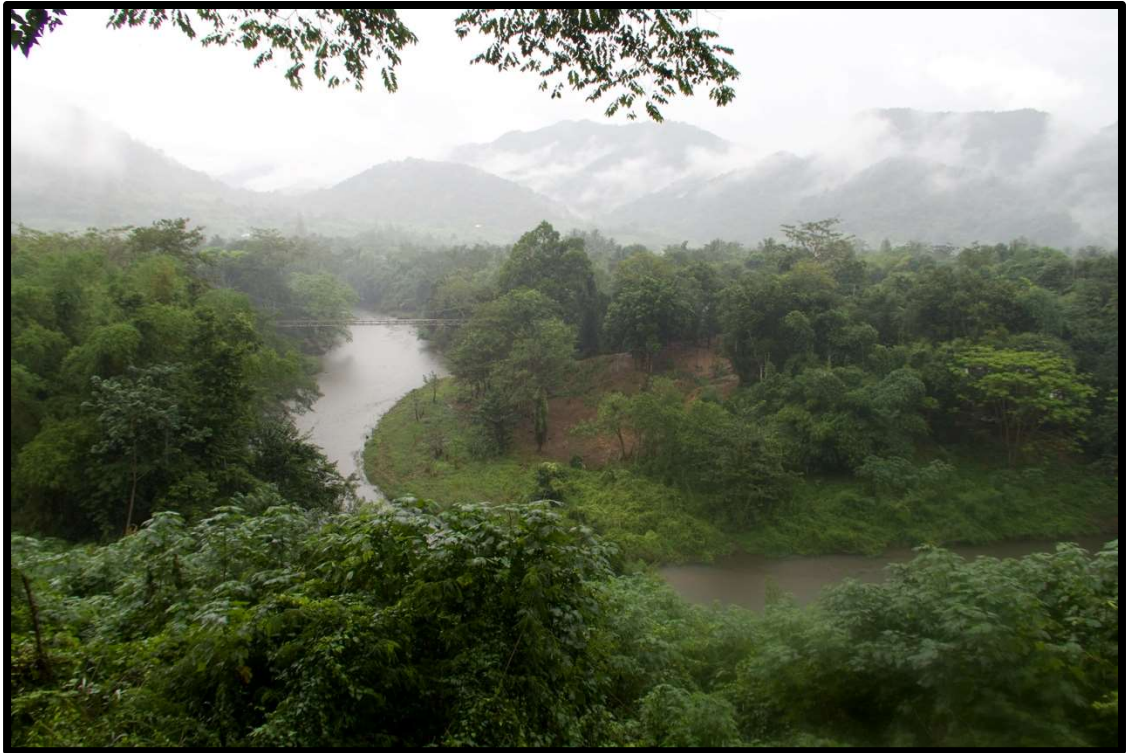
Photograph 4: Location of the community meeting in Bang Kloy, Kaeng Krachan National Park.

© IUCN/Tilman Jaeger



Photograph 5: Real-time monitoring of elephants to reduce human-elephant conflict, Kui Buri National Park.

© IUCN/Tilman Jaeger



Photograph 6: Bridge connecting the Bang Kloy and Pong Luek communities in Kaeng Krachan National Park.
© IUCN/Tilman Jaeger



Photograph 7: Wildlife tourism in Kui Buri National Park favored by habitat management.
© IUCN/Tilman Jaeger



Photograph 8: View of the surroundings of Kui Buri National Park in an area subject to intense human-elephant conflict.
© IUCN/Tilman Jaeger



Photograph 9: Group photo during the Advisory Mission with selected DNP staff.
© DNP.

Annex 7: Community Request to terminate the Nhong Ta Dang Project

Unofficial courtesy translation

To the World Heritage Committee,

We are the ethnic group of Pw aka Nyaw Baan Puragam Tambon Ta Now Si Amphor Suan Peung Ratchaburi Province, a local original community of 86 households. We are being impacted from the Nong Tadang Reservoir Project by the Royal Irrigation Department. The Department plans to remove people and use the area to construct the dam.

Our community is the same community as the Bang Kloy community moved from Jai Pan Din and we have been adjusting for many years until we reached stability and a good quality of life but now we are about to again being moved.

This project impacts our original local community of 86 households because it results in losing 500 rai of arable land due to the reservoir in the wildlife sanctuary, one of four protected areas of the Kaeng Krachan Forest Complex, nominated as a World Heritage. All Purakam Community and some part of Nong Ta Dang Community express the intention to object until the end, as we are of the view that this project impacts the community, forest and wildlife. We also see that this project is not worth the investment and rather should improve efficiency of an existing irrigation system, which would use less funds and would be able to actually solve the problem. So we would request:

- Perform checking on the issue of human right violation of community participation in the project that severely impact the community such as the process of community participation during the EIA;
- Request to the Royal Irrigation Department to terminate the Project and study the alternatives in better managing the water.

As so to please consider terminating the project

Respectfully.

(followed by the names and signatures / thumbprints of 343 villagers object the Nong Ta Dang Reservoir Project)