

OVERVIEW OF INTERNATIONAL COLLABORATION AND PARTNERSHIPS WITH THE FOREST DEPARTMENT SARAWAK

Abstract

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This paper provides an overview of the international collaborations and partnerships involving the Forest Department Sarawak. As a crucial player in forest management and conservation in Sarawak, the Forest Department Sarawak engages with various global and regional organizations to address pressing environmental challenges. This overview provides the primary objectives, scope of collaboration, output and outcome of these international collaborations, which include enhancing forest management practices, conserving biodiversity, and mitigating climate change. Key partners such as the International Tropical Timber Organization (ITTO), Forest Global Earth Observatory (ForestGEO), Food and Agriculture Organization of the United Nations (FAO), United Nations Development Programme (UNDP), German Technical Cooperation (GTZ) and Global Environment Facility (GEF) are discussed, along with significant projects like the Heart of Borneo Initiative, Sustainable Management of Peatland in Malaysia (SMPEM) and Sustainable Use of Peatland and Haze Mitigation in ASEAN (SUPA). The paper also discusses the challenges faced in these partnerships, such as coordination issues and funding constraints, and highlights opportunities for strengthening collaborations and leveraging advanced technologies. By analysing the impact of these international efforts, this overview underscores the importance of global cooperation in advancing sustainable forest management and achieving long-term conservation goals in Sarawak.

Kertas kerja ini memberikan gambaran keseluruhan mengenai kerjasama dan perkongsian antarabangsa yang melibatkan Jabatan Hutan Sarawak. Sebagai sebuah agensi utama dalam pengurusan dan pemuliharaan hutan di Sarawak, Jabatan Hutan Sarawak terlibat dengan pelbagai organisasi global dan serantau untuk menangani cabaran alam sekitar yang mendesak. Gambaran keseluruhan ini meneroka objektif utama kerjasama antarabangsa ini, termasuk meningkatkan amalan pengurusan hutan, memulihara biodiversiti dan mengurangkan kesan perubahan iklim. Rakan kongsi utama seperti Pertubuhan Kayu Tropika Antarabangsa (ITTO), *Forest Global Earth Observatory (ForestGEO)*, *Food and Agriculture Organization of the United Nations (FAO)*, *United Nations Development Programme (UNDP)*, *German Technical Cooperation (GTZ)* dan *Global Environment Facility (GEF)* dibincangkan bersama dengan projek-projek penting seperti Inisiatif Heart of Borneo dan *Sustainable Management of Peatland in Malaysia (SMPEM)* dan *Sustainable Use of Peatland and Haze Mitigation in ASEAN (SUPA)*. Kertas kerja ini juga membincangkan cabaran yang dihadapi dalam perkongsian ini, seperti isu penyelarasan dan kekangan pembiayaan, dan menyerlahkan peluang untuk mengukuhkan kerjasama dan memanfaatkan teknologi canggih. Dengan menganalisis impak usaha antarabangsa ini, gambaran keseluruhan ini menekankan kepentingan kerjasama global dalam memajukan pengurusan hutan lestari dan mencapai matlamat pemuliharaan jangka panjang di Sarawak.

1. INTRODUCTION

Sarawak, located on the island of Borneo, is home to one of the oldest rainforests in the world, harbouring a diverse range of flora and fauna. The Forest Department, responsible for overseeing forest conservation and management in the Malaysian state of Sarawak, has actively engaged in international collaborations to enhance its conservation efforts. These partnerships are crucial for addressing global and regional environmental challenges, such as deforestation, biodiversity loss, and climate change. This overview outlines the nature of these international collaborations, key partners, and their impact on forest management in Sarawak.

2. OBJECTIVES OF INTERNATIONAL COLLABORATION AND PARTNERSHIPS

International collaborations and partnerships with the Forest Department Sarawak aim to achieve these objectives:

- **Enhanced Forest Management:** Access to global expertise and advanced technologies improves local forest management practices.
- **Conservation of Biodiversity:** Joint efforts focus on protecting endangered species and preserving critical habitats.
- **Climate Change Mitigation:** Collaborative projects support initiatives to mitigate climate change through sustainable forest practices and carbon sequestration.
- **Improve Community Livelihood:** Support local communities in developing sustainable livelihoods and enhancing their capacity for natural resource management.
- **Capacity Building and Training:** Partnerships facilitate knowledge exchange and training, strengthening local capabilities in forest management.

3. KEY INTERNATIONAL PARTNERS

The Forest Department Sarawak partners with a range of international organizations and entities including:

3.1 International Tropical Timber Organization (ITTO)

The International Tropical Timber Organization (ITTO) is an intergovernmental organization that promotes the sustainable management and conservation of tropical forests and the trade in tropical timber from sustainably managed forests. ITTO's projects aim to improve forest management practices, enhance conservation efforts, and support the development of sustainable timber trade.

ITTO Projects in Sarawak

1. Sustainable Forest Management (SFM) Initiatives

One of the focus areas for ITTO in Sarawak has been promoting Sustainable Forest Management (SFM). ITTO projects have supported the development and implementation of management plans that ensure forests are managed in a way that maintains their ecological and economics functions while meeting the needs of local communities. Key achievements include:

- **Forest Management Plans:** ITTO has supported the creation of comprehensive forest management plans that balance conservation with economic activities. These plans help guide logging practices, ensure sustainable harvest levels, and protect biodiversity.
- **Certification Programs:** ITTO projects have facilitated the adoption of forest certification schemes, both national, such as the Malaysian Timber Certification Scheme (MTCS) and international, such as the Forest Stewardship Council (FSC) certification and the Program for Endorsement of Forest Certification PEFC, which ensures that timber products are sourced from sustainably managed forests. This has helped improve the marketability of Sarawak's timber and encouraged more responsible forestry practices.

2. Biodiversity Conservation

ITTO has also been involved in biodiversity conservation efforts in Sarawak. These projects focus on protecting endangered species, preserving critical habitats, and promoting ecosystem restoration. Notable impacts include:

- **Protected Areas:** ITTO-funded projects have supported the establishment and management of protected areas within Sarawak's forests. These areas serve as refuges for endangered species and help maintain critical ecological functions.
- **Wildlife Monitoring:** Projects have implemented wildlife monitoring programs to track key species' health and population dynamics such as orangutans and proboscis monkeys. This data is essential for informing conservation strategies and ensuring the protection of these species.

3. Community Development and Participation

Engaging local communities in forest management and conservation is a core component of ITTO's approach. Projects in Sarawak have emphasized community involvement, capacity building, and the development of alternative livelihoods. Key impacts include:

- **Community Forest Management:** ITTO has supported initiatives that empower local communities to manage their own forests sustainably. This approach not only helps conserve forest resources but also provides communities with a stake in forest management decisions.
- **Alternative Livelihoods:** To reduce dependence on logging and other unsustainable practices, ITTO projects have promoted alternative livelihoods, such as eco-tourism, non-

timber forest products, and sustainable agriculture. These alternatives provide economic benefits while reducing pressure on forest resources.

4. Capacity Building and Training

Capacity building is a crucial aspect of ITTO's projects in Sarawak. These initiatives aim to enhance the skills and knowledge of local forest managers, government officials, and other stakeholders. Notable achievements include:

- **Training Programs:** ITTO has organized training programs and workshops on various aspects of forest management, including sustainable logging practices, forest inventory techniques, and conservation strategies. These programs help build local expertise and improve forest management practices.
- **Knowledge Exchange:** ITTO projects have facilitated knowledge exchange between Sarawak and other tropical forest regions. This exchange of information and experiences helps local stakeholders learn from successful practices and adapt them to their own contexts.

Impact Assessment

1. Environmental Impact

The ITTO projects have had a positive environmental impact by promoting sustainable forest management practices, reducing illegal logging, and enhancing biodiversity conservation. The establishment of protected areas and improved management practices have contributed to the preservation of Sarawak's rich biodiversity and the restoration of degraded areas.

2. Economic Impact

Economically, ITTO projects have supported the development of a sustainable timber industry, which benefits both local communities and the broader economy. Forest certification has improved the market access for Sarawak's timber products, potentially increasing revenue while promoting sustainable practices.

3. Social Impact

Socially, ITTO projects have strengthened community engagement in forest management, leading to more equitable and inclusive decision-making processes. The development of alternative livelihoods has improved the economic conditions of local communities and reduced their reliance on destructive practices.

4. Policy and Governance Impact

ITTO projects have contributed to the development of more effective forest management policies and governance structures. By working with local authorities and stakeholders, ITTO has helped strengthen forest governance, enhance law enforcement, and promote better management practices.

3.2 Forest Global Earth Observatory (ForestGEO) is part of the Centre for Tropical Forest Science (CTFS) is a global research network focused on understanding and conserving tropical forests through long-term, large-scale research initiatives. Established in 1991 by the Smithsonian Tropical Research Institute (STRI), CTFS aims to address critical issues related to biodiversity, climate change, and forest dynamics.

ForestGEO Plot in Sarawak

Objectives and Activities

1. Forest Dynamics Monitoring:

- Tree Census: Conduct regular censuses of all trees within the plot, recording species, size, and growth data.
- Mortality and Recruitment: Monitor tree mortality and recruitment rates to understand forest turnover and dynamics.

2. Biodiversity Assessment:

- Species Inventory: Maintain detailed inventories of plant species, including trees, shrubs, and understory plants.
- Ecological Interactions: Study interactions between different species and their roles in the forest ecosystem.

3. Climate and Environmental Studies:

- Climate Monitoring: Record climate data such as temperature, humidity, and rainfall to assess their impact on forest dynamics.
- Soil and Nutrient Studies: Analyse soil composition and nutrient availability to understand their influence on forest health and productivity.

Impact and Achievements

1. Enhanced Understanding of Forest Dynamics:

- Data Collection: The Sarawak ForestGEO site has contributed valuable data on tropical forest growth, mortality, and recruitment patterns.
- Research Publications: Findings from the site have been published in scientific journals, advancing knowledge of tropical forest ecology.

2. Conservation Insights:

- Biodiversity Conservation: Research at the ForestGEO plot informs conservation strategies by providing insights into species distributions and ecological interactions.
- Sustainable Management: Data on forest dynamics supports the development of sustainable forest management practices.

3. Capacity Building:

- Local Engagement: The project involves local researchers and communities in data collection and analysis, building local capacity for forest research.
- Training and Workshops: CTFS organizes training programs and workshops to enhance skills and knowledge among local stakeholders.

3.3 The GTZ (Gesellschaft für Technische Zusammenarbeit) project in Sarawak refers to a development initiative supported by the German technical cooperation agency, GTZ, which is now known as GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit). The project aimed at promoting sustainable development, environmental conservation, and socio-economic development in Sarawak, Malaysia.

GTZ/GIZ Project in Sarawak

Background and Objectives

The GTZ project in Sarawak was part of Germany's broader international cooperation efforts to support sustainable development and environmental management. The project focused on various aspects, including forest management, biodiversity conservation, and community development. The objectives were to:

- **Enhance Sustainable Forest Management:** Promote practices that balance ecological, economic, and social aspects of forest use.
- **Support Biodiversity Conservation:** Contribute to the conservation of Sarawak's rich biodiversity through targeted actions and partnerships.
- **Improve Livelihoods:** Support local communities in developing sustainable livelihoods and enhancing their capacity for natural resource management.

Key Components and Activities

1. Forest Management and Conservation

- **Sustainable Practices:** Implementing and promoting sustainable forest management practices to reduce environmental impact and improve forest health.
- **Forest Inventory and Monitoring:** Conducting comprehensive forest inventories and establishing monitoring systems to track forest conditions and changes over time.
- **Community Involvement:** Engaging local communities in forest management activities, including participatory approaches to decision-making and management.

2. Biodiversity Conservation

- **Protected Areas:** Supporting the establishment and management of protected areas to safeguard critical habitats and endangered species.
- **Species Monitoring:** Conducting research and monitoring programs to assess the status of key species and their habitats.
- **Habitat Restoration:** Implementing habitat restoration projects to rehabilitate degraded areas and enhance ecological connectivity.

3. Community Development and Capacity Building

- **Training and Education:** Providing training and capacity-building programs for local communities and stakeholders to enhance their skills in sustainable resource management.
- **Alternative Livelihoods:** Supporting the development of alternative livelihoods that reduce dependence on unsustainable practices and contribute to economic development.
- **Participatory Planning:** Facilitating participatory planning processes that involve local communities in the design and implementation of development initiatives.

Achievements and Impact

1. Enhanced Forest Management

- **Improved Practices:** The project contributed to the adoption of more sustainable forest management practices, including reduced impact logging and better forest monitoring.
- **Increased Awareness:** Raised awareness among local stakeholders about the importance of sustainable forest management and conservation.

2. Biodiversity Conservation

- **Protected Areas:** Supported the establishment of protected areas and contributed to the conservation of critical habitats for endangered species.
- **Species Data:** Generated valuable data on species distribution and habitat use, informing conservation strategies and actions.

3. Community Benefits

- **Capacity Building:** Enhanced the capacity of local communities to manage natural resources and participate in conservation efforts.
- **Economic Opportunities:** Created new economic opportunities through sustainable livelihoods and eco-friendly practices.

3.4 The Global Environment Facility (GEF) is an international partnership that supports projects aimed at addressing global environmental issues, such as biodiversity loss, climate change, land degradation, and pollution. It provides funding and technical assistance to countries, including those in the developing world, to implement initiatives that promote sustainable development.

In Sarawak, GEF contributes in several key areas:

- I. **Biodiversity Conservation:** GEF-funded projects help protect Sarawak's rich biodiversity, including its unique rainforests and wildlife. This includes efforts to establish and manage protected areas.
- II. **Sustainable Land Use:** Initiatives aimed at sustainable agriculture and forestry practices help balance development needs with environmental protection, reducing deforestation and land degradation.
- III. **Climate Change Mitigation:** GEF supports projects that aim to reduce greenhouse gas emissions and enhance resilience to climate impacts, contributing to sustainable community development.
- IV. **Community Engagement:** Many GEF projects in Sarawak involve local communities, promoting awareness and participation in conservation efforts, which is crucial for long-term sustainability.

3.5 Science and Technology Research Partnership for Sustainable Development

(SATREPS) This program is designed to promote international joint research in which both Japanese research institutions and those of recipient countries work together based upon the social needs in recipient countries. Its aims are to obtain new knowledge and to utilize research outcomes to the benefit of the society with a view to resolving global issues such as the environment and energy, biological resources, disaster prevention, and infectious diseases. In conjunction with this, it also aspires to improve the development of human resources and research capabilities in recipient countries by conducting joint research.

3.6 Food and Agriculture Organization (FAO) of the United Nations initiatives focused on sustainable forest management, forest resource assessment, biodiversity conservation, food security and capacity building. These initiatives reflect FAO's commitment to fostering sustainable development in Sarawak, addressing environmental challenges while supporting local livelihoods.

4. MAJOR COLLABORATIVE PROJECTS

4.1 Heart of Borneo Initiative: The Heart of Borneo (HoB) initiative was launched in 2007 to conserve one of the world's most ecologically rich and biodiverse regions. The initiative seeks to safeguard the central highlands of Borneo, which span three countries: Malaysia (Sarawak), Brunei, and Indonesia (Kalimantan). The region is known for its vast rainforests, unique wildlife, and critical ecosystem services. The HoB initiative aims to address deforestation, habitat fragmentation, and biodiversity loss through collaborative efforts and integrated conservation strategies.

Goals of the Heart of Borneo Initiative

1. Conservation of Biodiversity

The primary goal of the HoB initiative is to conserve the region's rich biodiversity, which includes numerous endemic and endangered species. Key objectives include:

- **Protecting Critical Habitats:** Safeguarding key habitats for species such as orangutans, clouded leopards, and Bornean pygmy elephants.
- **Maintaining Ecosystem Services:** Preserving forest ecosystems that provide essential services, including water regulation, soil fertility, and climate regulation.

2. Sustainable Land Use

Promoting sustainable land use practices to balance conservation with economic development is a central goal:

- **Sustainable Agriculture:** Encouraging practices that minimize environmental impact and reduce deforestation, such as agroforestry and sustainable palm oil production.
- **Community Engagement:** Involving local communities in sustainable land use planning and management to ensure that conservation efforts align with their needs and livelihoods.

3. Regional Cooperation

The HoB initiative emphasizes cross-border collaboration between Malaysia, Brunei, and Indonesia:

- **Integrated Management:** Developing integrated management plans that span national borders to address transboundary issues such as illegal logging and wildlife trafficking.
- **Joint Conservation Programs:** Implementing joint conservation programs and projects to enhance the effectiveness of conservation efforts across the region.

Achievements In Sarawak

1. Protected Areas and Conservation Zones

The HoB initiative has contributed to the establishment and expansion of protected areas in Sarawak:

- **Designated Protected Areas:** Several new protected areas have been established, including national parks and conservation reserves, to protect critical habitats and biodiversity.
- **Enhanced Protection:** Increased protection for existing conservation areas, with improved management and enforcement to prevent illegal activities.

2. Biodiversity Monitoring and Research

Research and monitoring activities have been significantly enhanced:

- **Species Monitoring:** Ongoing monitoring of key species, including the Bornean orangutan and other endangered wildlife, to track population trends and conservation status.
- **Ecosystem Research:** Research on forest dynamics, ecosystem services, and the impacts of climate change has been advanced through collaborative projects.

3. Community Engagement and Capacity Building

The initiative has made strides in engaging local communities and building capacity:

- **Community Involvement:** Local communities have been actively involved in conservation activities, such as forest patrols and habitat restoration.
- **Training and Education:** Capacity-building programs have been implemented to educate local stakeholders about sustainable practices and conservation benefits.

4. Sustainable Development Initiatives

Efforts to integrate conservation with development have been promoted:

- **Sustainable Agriculture Projects:** Initiatives to promote sustainable agricultural practices, such as certified sustainable palm oil production, have been supported.
- **Eco-Tourism Development:** Development of eco-tourism opportunities that provide economic benefits to local communities while promoting conservation.

4.2 The Sustainable Management of Peatland Ecosystems in Malaysia (SMPEM) is an initiative aimed at promoting the sustainable management and conservation of peatland ecosystems across Malaysia, with a focus on mitigating the negative impacts of land use and enhancing biodiversity.

Contributions to Sarawak:

- I. Conservation of Biodiversity: SMPEM promotes practices that protect the unique flora and fauna of Sarawak's peatlands, helping to preserve essential habitats.
- II. Restoration Efforts: The initiative supports restoration projects that rehabilitate degraded peatland areas, enhancing ecosystem services and resilience against climate change.
- III. Community Engagement: SMPEM emphasizes the involvement of local communities in peatland management, empowering them to adopt sustainable practices that benefit both the environment and their livelihoods.
- IV. Policy Framework: The initiative works with local and national governments to develop policies and guidelines for sustainable peatland management, ensuring that regulations support conservation efforts.
- V. Research and Education: SMPEM facilitates research on peatland ecosystems and provides educational resources to raise awareness about the importance of these areas, helping to foster a culture of conservation in Sarawak.

By focusing on sustainable management practices, SMPEM contributes significantly to environmental protection and socio-economic development in Sarawak, addressing the challenges posed by land degradation and climate change.

4.3 The Sustainable Use of Peatland and Haze Mitigation in ASEAN (SUPA) project is an initiative aimed at addressing the challenges related to peatland management and haze pollution in Southeast Asia, particularly in countries like Malaysia, Indonesia, and Thailand.

Contributions to Sarawak:

- I. Peatland Management: SUPA focuses on promoting sustainable practices for peatland use, which is crucial for preserving the unique ecosystems in Sarawak. It encourages methods that prevent land degradation and protect biodiversity.
- II. Haze Mitigation: By implementing strategies to reduce haze caused by burning practices, SUPA helps improve air quality in Sarawak, benefiting public health and reducing the economic impact of haze-related issues.
- III. Capacity Building: The project provides training and resources for local communities and stakeholders on sustainable land management practices, fostering local engagement and ownership of peatland conservation efforts.
- IV. Policy Development: SUPA works with governments to formulate policies that support sustainable peatland use and environmental protection, influencing regional and national strategies.
- V. Research and Data Collection: The project contributes to scientific research and data collection on peatland ecosystems, which can inform better management practices and policies in Sarawak.

5. Challenges and Opportunities

Challenges:

- **Coordination Issues:** Managing diverse stakeholders and aligning objectives can be complex, requiring effective communication and collaboration.
- **Funding Limitations:** Securing and managing financial resources for large-scale projects can be challenging, impacting project implementation.
- **Cultural and Institutional Differences:** Variations in practices and priorities among international partners may affect collaboration outcomes.

Opportunities:

- **Strengthening Partnerships:** Enhancing collaboration with international stakeholders can lead to more effective and coordinated efforts.
- **Utilizing Technology:** Leveraging advanced technologies for monitoring and managing forest resources can improve project outcomes.
- **Expanding Training Programs:** Increasing opportunities for local capacity building through international training programs can strengthen forest management capabilities.

6. Conclusion

International collaboration and partnerships play a vital role in supporting the efforts in forest conservation and management. By engaging with global and regional entities, the department enhances its ability to tackle environmental challenges, promote sustainable practices, and contribute to global conservation goals. Continued development of these international relationships will be essential for advancing forest management and achieving long-term environmental sustainability in Sarawak.

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