Recent forest and land-use policy changes in Sabah, Malaysian Borneo: Are they truly transformational?☆

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ABSTRACT

This paper analyses the policy changes occurring in the forest and palm oil sectors of Sabah, Malaysian Borneo, through the lens of the transformational change concept. The aim is to first examine whether Sabah is transforming and, if so, to identify the determinants enabling or hindering the change. To determine if Sabah is transforming, we used two criteria: - (i) an ambitious change in the policy framework, that promotes forest conservation and sustainable use, and is moving away from business-as-usual activities; and (ii) the level of implementation of the policies that we identified as supporting transformational change. We found that Sabah very likely did intend to transform. We made this conclusion based on comparing changes in policies occurring in Sabah, and we decided if it is ambitious by primarily comparing Sabah's policies with other Malaysian states, the federal government, and internationally. We showed that: (i) Sabah decided to use voluntary international certification standards (private market instruments) like FSC and RSPO, while the other Malaysian states did not; (ii) they decided to protect more forest compared to national and international targets; and (iii) Sabah is an early mover as the state is one of the first in the world to adopt the RSPO Jurisdictional Approach. But intention needs to be followed by implementation, and this is where the state falls short. The policies in Sabah were not fully implemented because of the patronage system where the more powerful actors used their power to continue with business-as-usual activities, there is frequent political turnover in Sabah, and the state faced difficulty in meeting international standards. Our research shows that local leadership and a local transformational change coalition (civil society actively working in Sabah) mainly prompted the transformational change, although the promises of economic gains and better reputation also played a role. We conclude by emphasising the change must be made more compelling for political leaders, as part of a broader institutional structure, not only through the narrow focus on reducing deforestation but through the development of a more sustainable and equitable national economy, and that consumer countries should play a role in reducing pressures on forest by providing incentives to a state that manages its natural resources sustainably.

1. Introduction

Although tropical forests cover only about 6% of the Earth's land surface, they harbour more than half of the world's biodiversity (McCarthy and Tacconi, 2011; Laurance et al., 2012). Alarmingly, 90% of total deforestation was of tropical forests between the years 1990 and

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2020 (Anon, 2020). Tropical deforestation and forest degradation are major concerns because they contribute to 17% of total greenhouse gas emissions, cause biodiversity loss and reduce the forest's capacity to supply the products and ecosystem services that many people depend on for their survival (Gibson et al., 2011; McCarthy and Tacconi, 2011; Pacheco et al., 2021; Seymour and Harris, 2019). Incremental change (doing slightly more gradually of what is being done) to address deforestation is not effective and not happening fast enough because the world is facing more frequent and intense climatic extreme events that will overwhelm the environment systems, and cause irreversible losses to humans (Kates et al., 2012; Portner et al., 2022). As such, urgent action is needed to foster transformational change (TC), as a necessary societal response to stop or reduce tropical forest loss and degradation and also to meet global sustainability goals, such as the Sustainable Development Goals, the Paris Agreement on Climate Change and the New York Declaration on Forests (Termeer et al., 2017; Barlow et al., 2018; Dasgupta, 2021).

TC is an emerging concept in the field of natural resource management, but it has no universally accepted definition (Kehrer et al., 2020; Puri, 2018). One commonly used definition through a political-economy lens is '*a shift in discourse, attitudes, power relations, and deliberate policy and protest action, that leads policy formulation and implementation away from business-as-usual policy (BAU) approaches, that directly or indirectly support deforestation and forest degradation*' (Brockhaus and Angelsen, 2012). From an analytical point of view, it is crucial to understand the conditions under which TC is enabled or hindered. However, before addressing this question, we need to determine whether TC is occurring. Indeed, too often, forested countries change their policy framework to satisfy citizen and/or foreign pressure but implement strategies that are ineffective in changing the way natural resources are exploited (Milne and Adams, 2012; Ongolo and Karsenty, 2015). In this paper, we therefore map changes in the policy framework that occurred in the state of Sabah, Malaysian Borneo, and analyse the extent to which these changes translate into meaningful policy implementation.

The scientific literature on TC in the field of natural resource management is scarce. In addition, available studies generally focus on policy changes directly initiated and even sometimes piloted by foreign actors, for example, REDD+ (Babon et al., 2014; Brockhaus, Di Gregorio, and Carmenta, 2014; Brockhaus, Di Gregorio, and Mardiah, 2014; Brockhaus et al., 2017; Cole et al., 2017; Pham et al., 2017; Chia et al., 2019; Korhonen-Kurki et al., 2019; Moeliono et al., 2020). The adoption of a policy under external influence but without or lacking national ownership is commonly reported as hindering long-term and viable TC (Brockhaus et al., 2017). As a result, the understanding of TC enabling and hindering conditions, when it is perceived to emerge internally because of strong national ownership deserves more scrutiny.

In this paper, we analysed the case of Sabah, a major producer and exporter of timber and palm oil commodities. Starting in the 1990 s, the Sabah government adopted a series of ambitious policy measures to move away from the unsustainable exploitation of its forest resources. In 2015, the state authorities decided to adopt a jurisdictional approach to sustainable palm oil production. The specificities of changes that occurred in the Sabah policy framework – and what makes this case particularly interesting – are that (1) they were not the result of injunctions from the federal government of Malaysia or incentives from the international community; (2) they were ambitious, since Sabah chose to adopt international certification standards, such as those of the Forest Stewardship Council (FSC) and Roundtable on Sustainable Palm Oil (RSPO) instead of national standards; and (3) they were developed before the federal government and other Malaysian states made a move towards sustainability in the timber and palm oil sectors (early mover).

The aims of this paper are to first examine whether Sabah is transforming and, if so, to identify the determinants that are enabling or hindering the change. We focused specifically on policy changes occurring in two of the main land uses responsible for deforestation in Sabah: production forest (for timber) and palm oil agriculture. We do so

by first explaining our analytical framework of what TC entails and the type of data collected and its analysis. The results section draws on the data collected to examine whether Sabah is transforming and what are the determinants of the change. We then discussed what the findings could mean for Sabah's effort to improve its forest and land-use management, and its contribution to the wider TC literature.

2. Case study overview

Sabah is part of Malaysia, a federation of 13 states and three federal territories. Eleven states are on Peninsular Malaysia and two, Sabah and Sarawak, on Borneo island. All state governments have authority over their natural resources, such as land and forests, while the federal government sets overall policies for finance, education, defence and development (Jomo et al., 2004).

In the Federal Constitution, Sabah and Sarawak are semi-autonomous and have more freedom in the running of their states than the Peninsular Malaysia states. The two states have their own specific forestry laws and policies,[1] while the 11 states of Peninsular Malaysia share the same law and policy.[2] As such, the Sabah Forestry Department (SFD) has the full power to issue permits for timber harvesting, log transport, and export and import licences for timber products in Sabah (NEPCon, 2018).

The management of palm oil is a different matter. Although land titles for agricultural purposes are given out by the state, the federal government controls the licensing of palm oil plantations and products. This is under the purview of the Malaysian Palm Oil Board (MPOB), which is a federal government agency. All persons wanting to be involved in the palm oil business need to be licensed by MPOB, according to the MPOB Regulations of 2005. This encompasses the production, sale, purchase, construction of oil palm mills, and export and import of oil palm products (NEPCon, 2017). The state's Department of Agriculture thus plays a minimal role in palm oil development, compared to MPOB.

2.1. Main causes of forest loss in Sabah

The two main causes of forest loss in Sabah are the unsustainable exploitation of its timber resources, resulting in severe forest degradation, followed by the conversion of its forest into industrial oil palm plantations (McMorrow and Talip, 2001; Reynolds et al., 2011; Mashor et al., 2014; Gaveau et al., 2018). It is estimated that Sabah lost 1,862, 375 ha of its forest (about 25% of Sabah's land area[3]) from 1973 to 2015 (Gaveau et al., 2016). However, the forest cover in 2015 was still 53% of the land area (or 3,969,288 ha). Of this, 1,647,149 ha (22% of Sabah) was considered intact[4] forest, while 2,322,139 ha (31%) was logged forest area[5] (Gaveau et al., 2016). Over the past few decades, 86% of Sabah's logged forest had been logged at least twice, 12% three times and the remaining 1% four or more times causing it to be severely degraded (Bryan et al., 2013). Indeed, in the 1970 s to '80 s, logging for timber was the backbone of Sabah's economy (Jomo et al., 2004). Forest revenue during those years accounted for more than 50% of Sabah's total revenue (Pang, 1989). Sabah exported an average of 9 million m³ of logs from 1979 to 1988 (Dauvergne, 1995). The availability of timber declined rapidly from a peak of 13 million m³ in 1978 to 3.4 million m³

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[1] Sabah Forest Enactment 1968, Sabah Forest Policy 2018, Sarawak Forest Ordinance 1958, Sarawak Forest Policy 2019
[2] National Forestry Act 1984, Forest Policy Malaysia 2021
[3] Sabah's size is 7,396,621 ha (Gaveau et al., 2016)
[4] Gaveau et al. (2016) consider forest intact if the database of satellite images never detected the presence of large (>10 m wide) logging roads in the forest.
[5] Gaveau et al. (2016) consider that the forest has been logged if the database of images detected the presence of large (>10 m wide) logging roads in the forest.

in 1999 (Reynolds et al., 2011) and in 2019, only 1.07 million m^3 was harvested from the natural forest (SFD, 2019).

Starting in the 1990s, demand for palm oil and the increasing profitability of its cultivation became the main driver of deforestation in Sabah (Reynolds et al., 2011), taking over from timber overexploitation. In 25 years, the planted area of oil palm in Sabah increased by 1592% from 59,139 ha in 1975 to more than 1 million ha by 2000 (MPOB, 2019). In 2019, the total area planted with oil palms was about 1.54 million ha or 22% of Sabah (MPOB, 2019). Sabah had the largest planted area in Malaysia until Sarawak overtook in 2017. From the late 1990s until 2019, Sabah produced the most crude palm oil, compared to the other Malaysian states, with 5.03 million tons in 2019 (25% of Malaysia's production), making it the most important state in Malaysia[6] for this industry (MPOB, 2019). Malaysia is second only to Indonesia in terms of palm oil export, with Indonesia exporting 55% of the total global exports and Malaysia 34% (MPOB, 2019).

2.2. Overview of Sabah's land and forest governance

The head of government for Sabah is the Chief Minister (CM), who often leads the political party with the most seats in the State Legislative Assembly. Executive power is vested in the State Cabinet that is led by the CM. Sitting under the CM's Department are two agencies in charge of managing Sabah's land: SFD, and the Land and Survey Department (LSD). The SFD is responsible for managing forest reserves (FRs), which cover almost 50% of Sabah, and gazetted under the Forest Enactment 1968. The LSD is responsible for issuing titles for land outside of the FRs, using the Land Ordinance 1968. There are two types of land categories outside of FRs: 'state land' for all lands in the state other than a FR that is not yet alienated; and 'alienated land' for lands that are leased out by the state to private individuals, companies and local communities. FRs are managed under seven classes (Table 1), where three of these classes (Classes I, VI and VII) are categorised as Totally Protected Areas (TPAs) (Fig. 1). Besides the three FR classes, TPAs also include land managed by Sabah Parks and Sabah Wildlife Department (274,129 ha in 2019), whom are under Sabah's Ministry of Tourism, Culture and Environment. Logging is strictly prohibited in all TPAs. Commercial logging is allowed in Class II FRs. Class I and Class II FRs make up the bulk of the FRs and TPAs in Sabah, amounting to 86% of Sabah's FRs or 3.04 million hectares, as of 2019.

The Sabah Foundation is another key actor in the governance of land

Table 1
The seven classes of FRs in Sabah and their functions.

Class	Management function
I – Protection forest (TPA)	Forests conserved for the protection of watersheds and maintenance of essential environmental services. Logging is not permitted.
II – Commercial forest	Forests allocated for harvesting to supply timber and other forest produce, contributing to the state's economy.
III – Domestic forest	The produce from these forests is for the consumption of local communities only and commercial use is not allowed.
IV – Amenity forest	Forests primarily for providing amenity and recreation to the public.
V – Mangrove forest	Forests supplying mangrove timber and other forest products to meet general demands and multiple uses.
VI – Virgin jungle (TPA)	Intact forests conserved strictly for forestry research purposes, including biodiversity and genetic conservation. Logging is not permitted.
VII – Wildlife reserve (TPA)	Forests conserved primarily for the protection and research of wildlife. Logging is not permitted.

Source: Mashor et al. (2014)

in Sabah: it is a parastatal organisation that manages almost one-third of Sabah's FRs. Sabah Foundation was established in 1966 by the State Legislative Assembly to improve the socioeconomic status of Sabahans, especially through education. The funds for such activities were obtained from forest harvesting and downstream processing of timber. Eventually, the foundation ventured into other businesses, such as agroplantation and tourism. The foundation is important in Sabah's forest management and to our research because it was allocated almost 1 million hectares of FRs to manage, and it had a history of abuse and corruption, due to its privileged political access (Jomo et al., 2004).

3. Research design

3.1. Analytical framework

We reviewed the literature using the concept of TC in the field of natural resource management, especially forests. Using the Scopus search engine,[7] we identified articles with 'transformational change' and 'forest' (allowing for prefixes and suffixes) in their titles, abstracts or keywords ($n = 96$) and selected those focusing on TC aimed at reducing tropical deforestation or improving tropical forest management ($n = 14$) (Appendix A). We used these papers to identify the relevant indicators to assess TC and to formulate hypotheses regarding the determinants (enabling and hindering conditions) of TC.

In the literature, four features were used to determine if a state is transforming: - an ambitious change in the policy framework, from one that stimulates forest exploitation to one that promotes forest conservation and sustainable use; and it should be accompanied by a shift in discourse, attitudes and power relations (Brockhaus and Angelsen, 2012; Brockhaus et al., 2014; Kanninen et al., 2007; Moeliono et al., 2014). Changes in the policy framework should occur inside and outside the forestry policy domain, should move away from a BAU[8] scenario and be implemented (Brockhaus and Angelsen, 2012; Di Gregorio et al., 2015). In our study, we could only use the first feature, "ambitious change in the policy framework" to analyse TC. We could not consider the shift in discourses, attitudes and power relations directly (Brockhaus and Angelsen, 2012; Di Gregorio et al., 2015), because data was not available to compare the before and after changes. As such, we would not know if the policies changes are actually embedded into the institutional arrangements for longer term continuities. However, to mitigate this limitation, we considered the level of implementation of the policies that we identified as supporting TC as an extra criterion. The literature indeed suggests that the actual implementation of ambitious policies might signal that deeper changes occurred (and that very often, the absence of implementation suggest that changes in mindsets, power relations, etc. have not changed) (Brockhaus and Angelsen, 2012). We also did touched on these aspects when we analysed the determinant of the policy changes and the reasons why the level of implementation of ambitious policies were limited.

We formulated the following hypotheses for determinants (enabling and hindering conditions) of TC: (i) **leaders** that can seize the opportunity and build coalitions to achieve TC (Babon et al., 2014; Korhonen-Kurki et al., 2019); (ii) **urgency** to transform because of shortage of resources (Brockhaus et al., 2017; Korhonen-Kurki et al., 2014); (iii) **presence of advocacy coalitions,** with shared beliefs promoting their interest, which could be TC or BAU (Babon et al., 2014; Brockhaus, Di Gregorio, and Carmenta, 2014; Brockhaus, Di Gregorio, and Mardiah, 2014; Korhonen-Kurki et al., 2014; Moeliono et al., 2014);
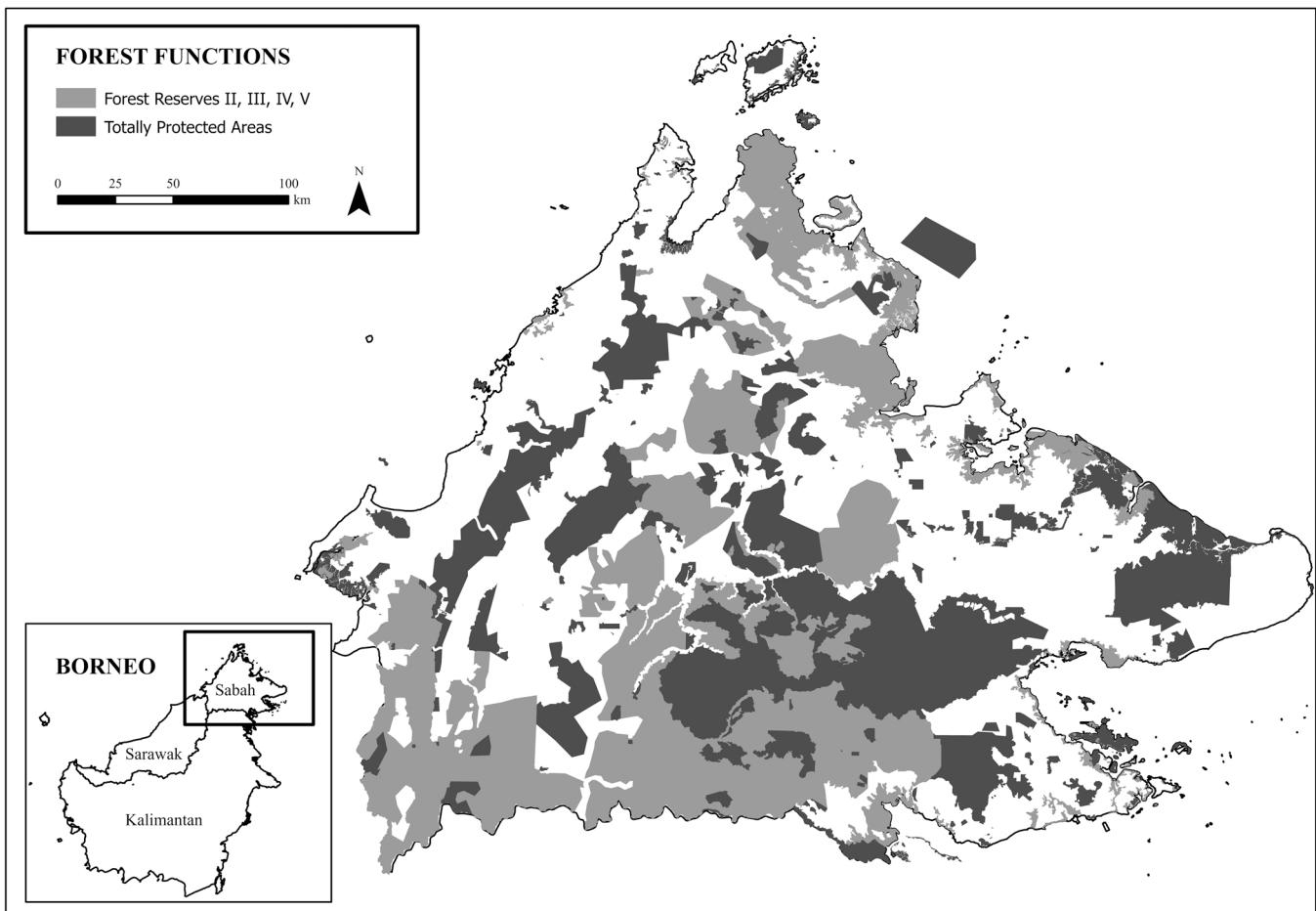
Fig. 1. Sabah's TPAs and other FRs (2019) (
Source: SFD (2019).

(iv) **strong national ownership,** where national actors are dominant in shaping the policy discourse for TC (Brockhaus et al., 2017; Cole et al., 2017; Di Gregorio et al., 2012; Korhonen-Kurki et al., 2014); (v) **country-specific political and institution structures** that can influence the change (e.g. inclusive institution arrangements that support TC, political path dependencies that support the *status quo* and are hard to change, the level of autonomy of state actors from interests linked to BAU activities) (Brockhaus et al., 2014; Brockhaus et al., 2017; Chia et al., 2019; Di Gregorio et al., 2012); (vi) **external factors**, such as availability of donor money to incentivise the change, the will to improve a country's image internationally, and the global market demand and policies in consumer countries that can influence or discourage the change (Brockhaus et al., 2017; Korhonen-Kurki et al., 2019; Pacheco et al., 2012; Pham et al., 2017).

3.2. Data collection and analysis

We used a case study research method (Bhattacherjee, 2012), where data was collected through desk review and semi-structured interviews. The desk review included policy documents, published and unpublished materials, and newspaper articles. For newspaper articles, we searched two main English newspapers in Sabah, which were the *Borneo Times* and the *Daily Express*. We searched online through the newspapers' websites, from 2009 to 2020 (articles before 2009 were not available online). We used keywords 'forest', 'deforestation', 'jurisdictional approach' and 'palm oil'.

We pilot tested the questionnaire for semi-structured interviews with three volunteers who were knowledgeable on the research matter before

conducting the actual interviews. The semi-structured interviews were done through expert sampling where the respondents were chosen in a non-random manner based on their expertise on Sabah's forest and land-use governance. Snowball sampling was also used as the experts who were first identified recommended others that could be interviewed. A total of 29 respondents were interviewed, government ($n = 8$), civil society (environment sector, $n = 12$, social sector, n = 3), research organisations ($n = 2$) and business (oil palm sector, $n = 3$, finance sector, n = 1). The respondents were senior-level government officials or senior organisation/company staff. The one-to-one interviews were conducted using the Zoom online platform during November and December 2020. The interviews were recorded with the permission of the respondents and transcribed verbatim, under a confidential agreement. In the results, we identified the respondents by providing running numbers of R1, R2, and so on, to keep their identities confidential.

We performed a content analysis of the interview transcripts and data acquired from the desktop reviews using NVIVO software by coding accordingly to the TC policy indicators and hypotheses listed in our analytical framework. We triangulated the evidence obtained from both sources to verify the interpretation of the data.

4. Results

4.1. Are Sabah's policies transformational?

Before assessing whether Sabah's policies can be qualified as TC, it is important to understand the context of how Sabah's policies are inter-linked with the federal ones. Sabah's development policies are very

much aligned and dependent on the Malaysia Plan, which is a comprehensive outline of the country's development strategies, prepared by the federal government. Malaysia Plans are prepared for a period of 5 years and the 1st Malaysia Plan covered the period 1966–1970. Malaysia is now in its 12th Plan (2021–2025). The main goals for the Malaysia Plans have always been to increase economic growth, promote national unity, eradicate poverty and ensure equitable wealth distribution. The agriculture sector, especially palm oil, was seen as a crucial means of achieving these goals, which were prescribed in the National Agriculture Policies. Malaysia has several federal policies concerning natural resource use and management, and some of the more relevant policies for this paper are the National Policy on Biological Diversity 1998 (revised 2016–2025), and the National Forest Policy 1978 (revised 1992, and the latest 2021). Similar to the development policies, Sabah developed its policies for both sectors independently from the federal government, but used the national policies as guidelines.

Our results showed that the development policies of Sabah and Malaysia in the early years of independence focused wholly on socioeconomic development. In Sabah, this was done by developing land settlement schemes and infrastructural facilities to link major population centres, and by improving human resources through education (Pang, 1989). However, over the years, Sabah started developing policies that are more ambitious than the federal government and Sarawak (the other semi-autonomous state) with regards to natural resource management. We present the evidence from the relevant policies below. For each policy, we provide a description of the policy, justify why it is moving away from a BAU scenario and assess the level of implementation. This is summarised in Table 2.

4.1.1. The Sabah Development Corridor: The Socioeconomic Blueprint 2008–2025

The Socioeconomic Blueprint was produced in 2008 by the Sabah government, and guided by the 9th Malaysia Plan (2006–2010). The goals of these two plans were to enhance the quality of life of the people by accelerating the growth of the economy, promoting regional balance (between Peninsular Malaysia and Sabah) and bridging the rural–urban divide. The plans differ, however, in their environment chapters: the Blueprint was more ambitious than the Malaysia Plan. The Blueprint stated that it would put in place sustainable agriculture practices to access more discerning markets and to possibly command premium pricing in the future. The aim was to leverage standards issued by the RSPO that could be translated into law with a management authority to address such issues. Neither RSPO nor any other form of certification for palm oil were mentioned in the Malaysia Plans till the 11th Malaysia Plan (2016–2020), where the Malaysian Sustainable Palm Oil (MSPO) certification was promoted. There was no mention of palm oil certification in Sarawak's development policy (Sarawak Corridor of Renewable Energy 2008–2030) published around the same time. This demonstrated Sabah's forward-thinking approach to sustainability: it was already planning to use an international certification scheme in 2008 that is relatively new, as RSPO was only officially established in 2004.

Seven years after the Blueprint was launched, Sabah announced the goal of certifying the whole state's palm oil production as sustainable under a new initiative called the RSPO Jurisdictional Approach (RSPO JA), which we will discuss in subsection 4.1.4.

4.1.2. Sustainable Forest Management Policy 1997

Malaysia is a signatory to the International Tropical Timber Organization, signifying its commitment to sustainable forest management (SFM). Even though Sabah has complete control of its forest, its forest policies and practices are often streamlined to the National Forest Policy. However, despite commitments made in the international arena, Sabah conducted intensive logging in the 1970s, '80s and '90s, without regard to the forest's ability to regenerate, and many short-term licences (1–5 years) were issued. In 1989, SFD obtained technical support from

Table 2

Summary of Sabah's policies moving away from BAU as compared to the other states in Malaysia, and the progress in its implementation.

Sabah's policy	Matching policies at Federal or Sarawak state level	How was Sabah's policy more ambitious?	Implementation progress for Sabah's policy
1) Sabah Development Corridor: The Socioeconomic Blueprint 2008–2025	• 9th to 11th Malaysia Plans (2006–2010, 2011–2015, 2016–2020) • Sarawak Corridor of Renewable Energy 2008–2030	Sabah • Stated that for palm oil production, it will leverage on the RSPO standards that could be translated into law. Note that RSPO certification was only just beginning, when this policy was written, so Sabah is an "early mover". Federal • Certified sustainable palm oil was not mentioned till the 11th Malaysia Plan, where MSPO was promoted. Sarawak • No mention of certified sustainable palm oil.	• In 2015, Sabah announced that it will apply the RSPO jurisdictional approach.
2) Sustainable Forest Management (SFM) Policy 1997	• National Forest Policy 1978 (reviewed in 1992 and 2021) • Sarawak Forest Ordinance 2015	Sabah • Decided to use FSC as an indicator of SFM, when at that time, FSC was viewed with hostility by governments of developing world. Federal and Sarawak • The federal government started operating the Malaysian Timber Certification Scheme in 2001 and promotes this certification.	• Sabah was the first state in Malaysia to have a FSC certified FR. Deramakot FR (55,139 ha) is the first tropical forest certified by FSC in the world. • SFM was unevenly implemented in the FRs of Sabah. Conventional logging was allowed in the Sabah Foundation areas. Licenses for forest conversion in FRs for oil palm plantation continued to be given out.
3) Sabah Forest Policy 2018	• National Forest Policy 2021 • National Policy on Biological Diversity (2016–2025)	Sabah • Target 30% protected area by 2025. • Directed that all FRs must be certified using international	• As of 2019, 26% of Sabah is gazetted as Totally Protected Areas. Sabah has the highest percentage of

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Table 2 (*continued*)

Sabah's policy	Matching policies at Federal or Sarawak state level	How was Sabah's policy more ambitious?	Implementation progress for Sabah's policy
	• Sarawak Forest Policy 2019 • Sarawak Land Use Policy	standard certification schemes. **Federal** • No target on protected areas coverage given in National Forest Policy. • Target 20% protected area in National Policy on Biodiversity. • No commitment on certifying all FRs. **Sarawak** • No target on protected areas coverage given in the Sarawak Forest Policy. • Committed to 8% protected areas in Sarawak Land Use Policy. • Announced in 2017 that all Forest Timber License should be MTCS certified by 2022.	protected areas in Malaysia (Peninsular ± 14%, Sarawak ± 7%) • Sabah and Terengganu (a state in Peninsular) are the only states with FSC certified FRs. In 2019, 586,697 ha of Sabah is FSC certified, Terengganu is 116,697 ha. However, only 17% of Sabah's FRs are FSC certified. • As of 2019, only 22% of Sabah's FRs are certified (MTCS-PEFC and FSC certification)
4) Sabah RSPO Jurisdictional Approach (RSPO JA) 2015	• Federal government announced in 2017 that it is mandatory for all palm oil producers to be MSPO certified by 1st Jan 2020	• Sabah's decision to use RSPO, which is a higher and an independent certification standard, for the whole state.	• The RSPO JA is yet to be made into a policy or law. However, a letter was issued by Sabah's Chief Minister Office in 2021 to all government departments to cooperate in making the RSPO JA a reality.

the German Agency for Technical Cooperation (GTZ), to develop a management system aimed at responsible production of timber. The objective was to manage the commercial FRs in a way that mimics natural processes for the production of high-priced timber products in a sustainable manner (Lagan et al., 2007). As a result, the SFM policy was introduced in 1997. The intention was to phase out short-term timber harvesting licences to make way for 100-year Sustainable Forest Management License Agreements (SFMLAs), averaging about 100,000 ha each. In these areas, reduced impact logging (RIL) practices had to be strictly followed. RIL aims to reduce damage to soils and residual forest, in comparison to conventional harvesting operations (Pinard et al., 2000).

Deramakot FR (55,139 ha) was selected for the SFM experiment and became the first tropical forest in the world to be certified by the FSC in 1997 (Mashor et al., 2014). The state policy's goal was to manage all commercial FRs based on the SFM Deramakot model. The policy stipulates that the SFMLAs must produce a 10-year Forest Management Plan approved by SFD before harvesting. The plan translates the SFM 1997 policy to the ground, as it specifies the stands identified for harvest in the next 10 years, and the forest restoration/enrichment and silvicultural treatments that are to be implemented (SFD, 2009). Based on the plan, the SFMLA must produce an Annual Work Plan, containing maps and descriptions of the area, and a Comprehensive Harvesting Plan, containing the total and net production areas, which must comply with the *RIL Operation Guide Book* (NEPCon, 2013).

The SFM 1997 policy is moving away from deforestation and forest degradation activities because it phases out short-term licences in favour of longer-term ones to ensure proper planning. It is implementing log harvesting regulations using SFM standards and it intends to use FSC certification as an indicator for successful SFM. Most respondents agreed that it was an excellent policy with descriptions of it being a "*good decision made*", "*visionary*" and "*contains the right messages to reduce deforestation*" (R6, R17, R18, R25, R27). It was also an ambitious policy since the FSC certification is one of the highest standards of forestry certification in the world. In addition, volunteering to use FSC was a bold move because, in the 1990 s, FSC was viewed with hostility by both the forestry and government sectors in developing countries (Karsenty, 2020). Sabah was the first Malaysian state to adopt FSC standards, when the other states used the Malaysia Timber Certification Scheme (MTCS), which was promoted in the National Forestry Policy and the Malaysia Plans. MTCS was developed in the late 1990 s using FSC's principles and criteria, and later – in 2008 – was endorsed by the Programme for the Endorsement of Forest Certification (PEFC).[9] However, an assessment by the World Wide Fund for Nature (WWF) found that the MTCS–PEFC standards needed to be improved, by excluding natural forest conversion, safeguarding High Conservation Values (HCVs) and addressing indigenous people's rights (WWF International, 2015). WWF concluded that FSC provides the most credible forest certification scheme at present. The only other Malaysian states that subsequently opted for FSC were Perak[10] and Terengganu in 2002 and 2008, respectively. Implementation of Sabah's forest certification will be discussed in subsection 4.1.3.1.

4.1.2.1. Implementation of the Sustainable Forest Management Policy 1997. The SFM 1997 policy faced challenges in its implementation since the SFMLA licensees were not ready for the change (R6). The SFM 1997 policy only applied to FRs. In addition, conventional logging or forest conversion is allowed on state land and alienated lands, through 'License Form 2B' and 'License Form 1' issued by SFD. We verified the implementation, or lack thereof, of the SFM 1997 policy through SFD's annual reports and the licenses given out for plantation expansion in FRs. We focused on plantation expansion to determine whether the policy reduced deforestation and forest fragmentation. Development of industrial plantations (oil palm or fast-growing timber species) requires clear felling of large areas of natural forest, although certain rules are in place to reduce adverse impacts on the environment (e.g., no clearing of HCV areas, riparian areas, steep slopes, etc.). Industrial tree plantations are considered 'forest' under the FAO definition and by SFD, but oil palm plantation is not. In this analysis, we also included data on the conventional logging and conversion that happened outside of FRs, using License Form 2B and License Form 1, to understand the management of 'forest' (no matter what it's legal status is) in the state.

SFMLA licensees work their Class II FR concessions through coupe permits. The permits are for: (i) natural forest management with or without RIL; (ii) industrial tree plantations with or without RIL; (iii) helicopter logging; (iv) mosaic planting and restoration; (v) silviculture;

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[9] PEFC is the largest forest certification programme worldwide, and accepted in the European Union.

[10] Perak's FSC certification was revoked in 2006.

(vi) restoration; and (vii) agroforestry/oil palm plantation. We found that the Sabah Foundation was allowed to practice conventional logging in their licensed SFMLA areas even after the SFM 1997 policy was implemented (SFD, 2011). A portion of Sabah Foundation's area (250, 000 ha) was destined to be a pulp and paper mill in 1998, and the area was logged without SFM techniques. Special licences were also issued for helicopter yarding on slopes steeper than 25° (Reynolds et al., 2011). RIL was made compulsory for all licensees on 1 January 2011, including for the Sabah Foundation (SFD, 2014a). Based on the coupe permit data, from 2010 to 2019, 66,701 ha were allocated inside SFMLAs for the development of oil palm plantations, 230,442 ha for industrial tree plantations and 15,811 ha for industrial tree plantations under RIL. This amounted to 312,955 ha, indicating there were some forms of forest conversion happening in the FRs (SFD, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014a, 2015, 2016, 2017, 2018, 2019).

Outside of FRs, License Form 2B is used for alienated land that can be clear-felled for agricultural purposes, such as oil palm plantations, rubber and short-term crops. On the other hand, License Form 1 can be applied to alienated land, state land or FRs and is valid for one year. Clear-felling can be done under License Form 1 on state land and alienated land. However, only trees of 60 cm diameter at breast height and above can be extracted in FRs using Form 1 and RIL is subjected in these FRs (R44). Between 2006 and 2019, 2645 Form 2B licences were issued, covering 524,919 ha. For Form 1, 109 licences were issued from 2006 to 2019, covering 180,242 ha. Of these area, 133,053 ha were alienated or state land. After 2014, SFD stopped issuing the Form 1 licence for FRs, corresponding to the reduction in issuing short-term licences in FRs (SFD, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014a, 2015, 2016, 2017, 2018, 2019).

We were unable to verify whether the areas given out through SFMLA coupe permits in FRs, License Form 2B, and Form 1 in state and alienated lands (total 970,927 ha) were good forest stands or degraded, or whether the forest was cleared as per the licenses. However, the data clearly showed that licences were given out for forest conversion in FRs and outside of FRs.

4.1.3. Sabah Forest Policy 2018

Sabah updated its Forest Policy in 2018. This was approved by the State Cabinet and subsequently included in the national policy. The policy clearly stated that the state is committed to SFM and maintaining 50% of Sabah's landmass under FRs and tree cover. The policy also aspires to have not less than 30% of Sabah's land area under TPAs by the year 2025 and to certify all FRs in stages (SFD, 2018b). In the meantime, the federal government published an updated National Forest Policy in 2021. This policy is divided into three different regions; Peninsula, Sabah and Sarawak, and each region presented its policies accordingly in the national one.

Compared with the Peninsula and Sarawak forest policies, Sabah was seen to be more ambitious by deciding to fully protect 30% of its area by 2025. The other two regions did not provide a target for their respective TPA coverage in their forest policies. For Sarawak, the TPA target is instead given in the Sarawak Land Use Policy, where the state committed to keeping 8% of Sarawak's land as TPAs. Sabah's TPA target is also higher than Malaysia's National Policy on Biological Diversity (2016–2025) of achieving 20% TPA coverage, and the 17% for the global Aichi Biodiversity Targets. In addition, in 2014, SFD directed that all FRs must be certified using international standard certification schemes (SFD, 2014b). Peninsula did not make this commitment in its policy, although the MTCS was promoted. In 2017, Sarawak mandated that all of its Forest Timber Licence areas should obtain MTCS by 2022.

4.1.3.1. Implementation of Sabah Forest Policy 2018. We analysed the trends in Sabah's FRs and TPAs over the years, and the size of its certified areas. Sabah's total FR area pre-1963 was estimated to be about 2.483 million ha (SFD, 2008). This had expanded to 3.541 million ha

(48% of Sabah's area) by 2019, which is an increase of 1.058 million ha in 56 years. In 2019, 26% of Sabah (1.907 million ha) was gazetted as TPAs, which showed that the state continues to uphold its commitment to achieving 30% TPA by 2025. As of 2019, Sabah had the highest percentage of TPAs in Malaysia (Peninsular ± 14%, Sarawak ± 7%). Sabah's increase in TPAs is attributed to the increase in Class I FRs, which mostly came from the reclassification of Class II FRs. Sabah's Class I FRs increased to 1.04 million ha while its Class II FRs decreased by 1.02 million ha from 2006 to 2019 (SFD, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014a, 2015, 2016, 2017, 2018, 2019). However, most of the Class II FRs that were reclassified as Class 1 FRs had been heavily exploited and degraded previously. They underwent a last cycle of logging just before their gazettement as protected forest. In other words, most of their timber resources had been extracted before being protected (R14, R18). SFD admitted that the quality of the FRs is of less than pristine condition, but still claimed this as an achievement in itself as legislative protection of TPAs will provide "*security of tenure in perpetuity*" (SFD, 2011).

After Deramakot FR, Sabah subsequently certified eight more FRs under FSC. Currently, Sabah and Terengganu are the only states in Malaysia with FSC certified forests. As of 2019, 586,697.54 ha (17%) of Sabah's FRs were FSC certified.[11] Only Deramakot is a Class II commercial forest. The other eight are Class I FRs. SFD certifies non-production FRs to institutionalise the governance of the FR, as a certified forest means large stakeholder participation, which will reflect the wider interest of society (SFD, 2010). In addition to FSC certification, four SFMLA companies are MTCS-PEFC certified, totalling 180, 351.43 ha. Together with the MTCS-PEFC certification, 22% (767, 048 ha) of Sabah's FRs were certified in 2019. Two forest plantations in Sabah are also FSC certified with an area of 40,281.27 ha. Sabah still has about 2.77 million ha of FR to certify (of which 1.4 million ha are Class II FR), suggesting that it needs substantially more effort to achieve SFM. The lack of certification implementation in Class II FR is because both FSC and MTCS-PEFC only allow 5% of natural forest conversion, with differing cut-off dates. The SFMLA licensees inherited forest areas that were badly degraded from past unsustainable logging practices and therefore could not get a return on their investments from logging the natural timber stand. As such, SFD decided that 15% of their FMU could be converted into timber plantations, and in 10–15 years, they can harvest and fulfil the demand for the wood industry (Anon, 2011). This however means that the licensees could not meet the 5% forest conversion certification standard.

4.1.4. Agriculture policies and the RSPO Jurisdictional Approach

The first National Agriculture Policy (1984–1991) promoted land development for export crops: - cocoa, rubber, and palm oil. The second National Agriculture Policy (1992–1997) promoted specifically an increase in land area for oil palm plantations. Both policies strongly influenced Sabah's land development, by commercialising agriculture and resulting in large tracts of forest being converted into oil palm plantations (McMorrow and Talip, 2001).

In 2015, the Sabah government declared its goal of implementing the RSPO JA, aiming for the entire production of palm oil in the state to be 100% RSPO certified by 2025. Conceptualised by the RSPO Secretariat, the RSPO JA was introduced as a new approach to minimise the negative impacts of palm oil cultivation on the environment and communities, at the scale of government administrative areas. It is done through the stepwise certification of the production and processing of sustainable oil palm products at a jurisdictional level. This approach requires government leadership in facilitating a multi-stakeholder process and setting

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[11] The FSC certification for Deramakot lapsed on 31 October 2019 due to the change of government in Sabah in 2018, which delayed the FSC reassessment for the sixth cycle. The re-assessment was postponed to the following year (SFD, 2019).

up overall governance and regulations (RSPO, 2019). Sabah, the district of Seruyan, Kalimantan in Indonesia, and Ecuador are pilot sites for the implementation of RSPO JA. In Sabah, this initiative is being led by SFD.

Sabah's adoption of the RSPO JA clearly shows the intent to move away from deforestation and forest degradation, and moving beyond the forestry domain. The choice of RSPO as a certification standard means that the state will subscribe to the highest available certification standard of sustainable palm oil production. When certified, it will be achieving the goals of no deforestation at a landscape level,[12] no new planting on peat, ensuring safe and decent working conditions, and upholding human rights.

We also view RSPO JA as moving away from BAU, since, with this decision, Sabah wants to use a higher standard of certification than the federal government. The federal government did not agree with Sabah choosing RSPO certification over their own certification scheme, MSPO. MSPO is less stringent than RSPO, and many international conservation organisations still consider RSPO to be the only credible certification scheme for sustainable palm oil (Loh, 2018). MSPO certification was made mandatory for all palm oil producers in Malaysia by the end of 2019. However, Sabah continued to insist on using RSPO, despite pressure from the federal government. This was a notable decision by Sabah, as licences for all palm oil businesses are given out by the federal government through MPOB and, therefore, if MSPO is not used, MPOB can revoke the licenses of growers and producers in Sabah. Both the federal and Sabah government eventually came to an agreement that certification for Sabah's palm oil will take a stepwise approach, where plantations and mills will be certified first by MSPO and eventually RSPO.

4.1.4.1. Progress of the RSPO Jurisdictional Approach. Sabah has yet to make the RSPO JA into a policy or law, although a letter was issued by the CM Office in 2021 to all government departments to cooperate in making the RSPO JA a reality. The RSPO Secretariat (at the time of writing) is still in the process of drafting a certification system document for the JA, primarily based on the experiences of the three JA pilot sites. RSPO has so far recognised four stepwise approaches to achieve a jurisdictional certification, with requirements for each step (RSPO, 2019). Sabah is still in the first step, meeting the requirements of: (i) establishing a multi-stakeholder board in 2016 with mandate from the state government led by SFD, (ii) the state issuing a statement of intent to achieve 100% RSPO compliance, (iii) producing a draft HCV map, (iv) formulating the free prior and informed consent procedure. The contentious issue faced is that the RSPO criterion requires that new plantings do not cause deforestation or replace any area required to maintain or enhance HCV and high carbon stock (HCS). This criterion is difficult to achieve at a jurisdictional level compared to a plantation unit. One way forward as stipulated in the RSPO document is to develop a jurisdictional level map of 'no-go' zones for oil palm. This map is the draft HCV map produced by SFD. However, the development of the HCV map has been delayed because of disagreements among the multi-stakeholder board members about adding HCV values 5 (community needs) and 6 (cultural values),[13] and HCS to the map. Wider consultation with other stakeholders is also needed, but this has been delayed because of the COVID-19 situation.

4.2. Determinants (enabling and hindering conditions) of TC in Sabah

In the previous section, we presented the policies that we consider to be transformational and analysed the extent to which they have been implemented. We will now present our results on what we found as the

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determinants enabling and hindering the conditions of TC in Sabah.

4.2.1. Shortage of resources

In the 1980s, the state realised that its timber exploitation was not sustainable in the long run. This was the main reason SFD implemented the 1997 SFM policy. They admitted that the 50 years of unsustainable practices that were "*politically driven*" had completely depleted timber stocks (Anon, 2015a). This was acknowledged in published literature (Kleine and Heuveldop, 1993; Lagan et al., 2007; Mashor et al., 2014; Reynolds et al., 2011; Toh and Grace, 2006), and recognised by respondents in the interviews (R6, R7, R13, R23, R27).

4.2.2. Leadership

Many respondents recognised that the leadership at the SFD level played a key role in orientating political decisions and implementing new forestry decisions. In 1989, the then director of SFD, Miller Munang, invited GTZ to Sabah to develop a sustainable model for forestry in Deramakot FR. This laid the foundations of the SFM 1997 policy (R6, R17, R18). His legacy was further reinforced by Sam Mannan who was the Director and Chief Conservator of Forests for SFD from 2004 to 2018. Mannan viewed the management of forest in Sabah through his "*big picture goal*", which was security of tenure for the FRs. To Without this, SFM cannot be applied. To Mannan, the SFM Deramakot model should be applied in other FRs, adapting the concept to local site conditions (SFD, 2009). Mannan was seen as someone who could influence the CMs of Sabah who were in charge during his time as Chief Conservator by knowing how to play the political game (R7, R17, R18, R23). He is said to be, "*exceptional in his boldness and vision*", "*open to engaging with new ideas*", "*has a long-term agenda for the forest*", "*able to navigate the political game very well*", and "*a person that can whip and move things along*" (R17, R25, R34, R6, R21). One respondent commented that SFM in the state did not happen from a governance process or stakeholder consultations, but from the visions of leaders like Mannan and Munang, and it made a difference that these leaders were professionally trained as foresters, as this gave them the capacity to see the bigger picture on forest resource management (R18). In contrast, Mannan was equally criticised by human rights groups for not respecting local indigenous people's rights to land and being too heavy-handed in evicting them from homes that SFD alleged were encroaching into the FRs (Anon, 2017a; Anon, 2018; Butler, 2018).

4.2.3. Civil society influences

Mannan and other like-minded civil servants were supported by civil society groups in Sabah to develop new visions and policies at the core of the TC, such as the SFM policy, 30% TPA, forest certification and the RSPO JA. These groups included conservation and social NGOs and research institutions actively working in Sabah. They can be seen as a 'coalition' partnering with state agencies to achieve the overall goals of sustainability. They had a few things in common: ability to see the big picture for the state; connections to international funding, experience and skills; legitimacy and credibility to operate in Sabah because of their long-time commitment to the state, and genuinely having Sabah's best interest at heart (R10, R11, R17, R23). A respondent explained that one reason SFD was forward-thinking and willing to accept new ideas was that it had a lot of partnerships with international organisations and donors, which increased exposure to new ideas and capacity to implement them (R27). Mannan often mentioned that these groups are "*like-minded friends*" that provided technical and funding support to help SFD move the conservation agenda. He understood that SFD could not carry the whole agenda alone, and needed them to promote the agenda when SFD's hands were "*politically*" tied (R6, R18). Respondent 23 said, "*Civil society could sit down together with the government, and exchange ideas and solutions that helped the state move towards sustainability*". This is especially prevalent in Sabah, compared to the other states in Malaysia that do not view civil society as "*friends*" (R11, R17, R27).

The idea of the RSPO JA came about from a few Sabahan members of

these groups, one of which was the previous Chief Executive Officer of RSPO, and another the founder of a prominent community-based NGO in Sabah. These actors, including Mannan, managed to convince the CM at that time, Musa Aman, and thus the state, to move towards the RSPO JA (R8, R9, R10, R11, R12, R14, R17, R18, R19, R21, R23, and R25).

4.2.4. Nature tourism

A few respondents said that nature-based tourism played a role in shifting the attitude of the government towards preserving and better managing the state's natural resources. Tourists are attracted to Sabah to see the forest and its wildlife (R7, R14, R23). Nature and wildlife could therefore become a source of revenue for development via tourism-generated income, employment opportunities and foreign exchange earnings. Tourism is thus one reason why Sabah decided to embark on better forest management and conservation as it brought in more revenue than forestry in recent years, before the COVID-19 crisis (Anon, 2014). In fact, tourism is the third-highest contributor to Sabah's economy after agriculture and manufacturing (IDS, 2008).

4.2.5. International reputation and pressure

The state of Sabah is particularly mindful of international reputation, with Mannan quoting "*We don't want to be the pariahs of the world!*" when asked why Sabah introduced the SFM 1997 policy. Throughout the late 1980s to the '90s, there were mounting criticism of the Malaysian Borneo states' management of their forest resources by Western countries. In the 2000 s, many Western organisations started anti-palm oil campaigns because palm oil was seen as the major cause of deforestation and orangutan population decline in Borneo and Sumatra (Koh and Wilcove, 2007; Swarna Nantha and Tisdell, 2009). This international criticism also influenced Sabah to move towards sustainable management of its forest (R7, R8, R10, R13, R18, R23, R37).

4.2.6. Improvement in technology

The development of technologies also increased societal pressure on the state of Sabah. Respondents said that "*Because everything you do now can be recorded, your bad behaviour can thus be broadcasted on social media to the whole world*" (R13, R23). Technological advances in remote surveillance of land use (e.g., Global Forest Watch) also made it difficult to 'hide' deforestation. As such, "*The government realised, they could not go on the way they did before and international perceptions need to be taken into account*" (R23).

4.2.7. Global market demand

For the RSPO JA, Mannan said that it makes business sense for the state to remain competitive with its palm oil. Given the relatively small size of the state, Sabah had to compete based on governance and not size (Anon, 2015c). The industry players agreed that the RSPO JA would lower reputational risk, and provide continued access to markets in Europe that demand certified sustainable palm oil (R35, R36, R37). Indeed, due to public pressure, the large Asian palm oil multinationals made pledges of "*zero deforestation, no new development on peat and no exploitation of people*" in their supply chains as early as 2013 (Ivancic and Koh, 2016; Nesadurai, 2018). Therefore, the RSPO JA fits the sustainability agenda of these companies. The industry also sees the potential revenue from selling palm oil that have been jurisdictionally RSPO certified. Sabah would then become the preferred choice for certain buyers of palm oil, especially Western countries that had recently decided to only import certified sustainable palm oil, and even the preferred destination for tourism and other businesses, because of the reputation it will build (R35).

4.2.8. Changing governments

Respondents saw the change of the state government in 2018 delaying the progress of the RSPO JA (R2, R4, R8, R10, R11, R18, R23, R25, R35). Sabah had the same government from 1994 to 2018 (24 years), and the RSPO JA was conceived during this time. The change of the state government in 2018, with a new CM, delayed RSPO JA progress because the new government was not familiar with the process. The person pushing the RSPO JA agenda from the government side, Mannan, was removed from his position when the new government took over. Those left to carry on the RSPO JA agenda had to convince the new state leaders of its importance. It took about a year to get the new government on board with the RSPO JA initiative.

4.2.9. Pressure from actors that benefit from exploitation and conversion of forest

Poor implementation of the transformational policies can largely be explained by the fact that policymakers, and government departments, tried to satisfy the interests of actors benefitting from the activities of deforestation and forest degradation. These included logging companies and contractors, and those promoting narrow and personal sectoral interests like oil palm expansion (R6, R18, R21, R34). Respondents pointed to the existence of patronage-like systems characterised by strong linkages between policymakers' interests and change-resistant interests of private actors. Examples of quotes from the respondents are: "*The intimate links between timber contractors and the politicians make it impossible for SFMLA to be implemented!*" (R21); "*You know the politicians look for timber and they want to log as fast as possible to get money*" (R6); and "*SFD had to compromise with the state government on allowing oil palm in FRs, and up till today they are still struggling to explain this decision*" (R13).

Patronage politics is defined as two people involved in a relationship in which one individual is of higher socioeconomic position (patron) and uses influence and power to provide protection or benefits to the other person of lower status (client). The client reciprocates by offering support to the patron (Varkkey, 2016). Such politics is practiced and implicitly accepted in Sabah, other states in Malaysia and also throughout Southeast Asia (Dauvergne, 1995; Jomo et al., 2004; Varkkey, 2016). In the case of Sabah, it is often the politicians that are patrons and the actors, that benefit from receiving the rights to log or convert a forest area, are the clients.

An example of patronage politics is the Sabah Foundation's receipt of special privileges to practice conventional logging, as explained in subsection 4.1.2.1. The SFD annual report stated that the Foundation was allowed to practice conventional logging methods at the "*insistence*" of logging contractors and for economic reasons (SFD, 2011). Its investment arm, Innoprise Cooperation Ltd., made a huge loss between 1986 and 1994 because of abuse of power, with irregularities of log sales and non-compliance with the Forest Management Plan (meaning SFM was not practiced) (Jomo et al., 2004). In addition, Sabah Foundation was the first concession to be allowed to develop oil palm plantations in the FRs that they manage. Sabah Foundation sought permission from SFD to convert more than 100,000 ha of the forest into oil palm plantations, citing their social responsibility towards Sabahans, and permission was granted under specific conditions (for 30 years). According to the CM at that time, Musa Aman, the Foundation was allowed to plant oil palms, because it gazetted the richest forest stand in their area (i.e., Danum, Imbak and Maliau Basin amounting to 132,640 ha) into TPAs (Anon, 2017b). Another privilege retained by Sabah Foundation was the option to harvest logs on steep slopes above 25°, provided helicopters were used (Anon, 2017c). Jomo et al. (2004) postulated that the Sabah Foundation consolidated the relationship between timber and politics in the state. Indeed, the person who becomes the CM is the de facto Chairman of the Sabah Foundation Board of Trustees, while its senior management staff are often political appointees. This gives the CM control of about a million hectares of forest concessions. As such, the Sabah Foundation provided the ruling party with a prime vehicle to exploit the forest and distribute the profits to its political supporters (Dauvergne, 1995).

Between the years 2014 and 2016, a total of 74,791 ha of FRs were degazetted, mostly from the Class II FRs (SFD, 2014a, 2015, 2016). The SFD annual reports explained that the degazettement happened because

of encroachment by local communities and for development purposes that were not specified. The reason quoted is "*supporting the government's social-economic policies*". Land is a contentious issue among the indigenous people, and local communities are often in disagreement with SFD regarding the boundaries of the FRs and their native customary right to reside there. The more suitable agriculture land in Sabah has already been taken up by oil palm companies and FRs, and therefore, the only land left available for the indigenous people to plant their crops are in FRs, forcing them to encroach (Majid Cooke, 2012). Politicians often take advantage of the local communities' claims for land to elicit political support from them. They lobby SFD for FRs to be declassified for local community use, and forest conversion to happen in the name of development that will benefit the local communities; for example, the construction of the Kinabatangan bridge to improve transport infrastructure for rural villages (Anon, 2012, Anon, 2015b, Anon, 2015d, Anon, 2019; Cannon, 2017). This is considered a form of the patronage system, although the issues of community land and its native customary rights are a much complicated and wider topic by itself, and beyond the scope of this paper.

5. Discussion

5.1. Is Sabah transforming?

We compared changes in policies occurring in Sabah that is moving away from BAU, and we decide if it ambitious by primarily comparing Sabah's policies with other Malaysian states and the federal government. We showed that (i) Sabah decided to use voluntary international certification standards (private market instruments) like FSC and RSPO, while the other Malaysian states did not; (ii) they decided to protect more forest compared to national targets (20% for Malaysia); iii) Sabah is an early mover as the state is one of the first to adopt the RSPO JA. This way of conceptualizing transformational change might be problematic if the comparison is made with jurisdictions with very low standards. What makes our claim that Sabah is somehow engaged in transformational change is that policy changes occurring in Sabah are also ambitious and innovative by international standards. For example, Aichi target for protected areas is 17%. Sabah is also particularly innovative by international standards because the state decided to use a private certification scheme (RSPO) as a public policy instrument. Indeed, voluntary international standards usually go beyond the regulatory standards of public policies, as it provides a process for continuous improvement, and its enforcement is independent from public authorities (Karsenty, 2019). Such approach is yet to be done by any other country or prominent subnational jurisdiction, except for Gabon where the president recently announced that all forest concessions will have to be FSC certified by 2022 (Karsenty, 2018).

We also checked if Sabah's ambitious policies were implemented. Our study provided evidence for the uneven implementation of Sabah's policies which enabled continued forest loss. This uneven enforcement of environmental policies aimed at halting deforestation has been documented in the literature (Austin et al., 2014; Chervier et al., 2016; Erbaugh and Nurrochmat, 2019; Lederer et al., 2020; Moeliono et al., 2020; Ongolo and Karsenty, 2015). Our paper adds to this literature by showing that even in situations where policy changes are mostly driven by internal forces, resistance to change occurs and affects policy implementation. We show that the reasons for not full implementation are linked to the other important indicators of TC; shift in discourses, attitudes, and power relations, which we could not analyse in-depth in this paper, but did discuss in the following subsection 5.2.

It is not easy to provide a definitive yes or no answer to whether Sabah is transforming, as the opinion on TC is often relative and contextual (Termeer et al., 2017). But based on our arguments above, we can conclude here that Sabah very likely did intend to transform. But intention needs to be followed by implementation, and this is where the state falls short.

5.2. Determinants that hindered transformational change

One of the main reason the policies in Sabah were not fully implemented was because of the patronage system that we found in Sabah. This is linked to the discourses, attitudes and power relations in TC. Patronage system leads to what Brockhaus and Angelsen (2012) termed "institutional path dependencies", that makes change hard to happen. Actors, often in seat of power and wealth, are afraid of losing their benefits from the BAU activities. The different discourses advocated by the many actors, BAU or TC coalition, will be negotiated, and policy change will be the results of these negotiations. The discourse that wins is often a combination of economic and political power (Brockhaus and Angelsen, 2012; Nesheim et al., 2014). Like in the case of REDD+ , uneven policy implementation in Sabah is linked to the fact that a number of actors with an interest in forest conversion and exploitation use their political power to influence authorities' decisions (Babon et al., 2014; Brockhaus, Di Gregorio, and Carmenta, 2014; Brockhaus, Di Gregorio, and Mardiah, 2014; Korhonen-Kurki et al., 2014; Pham et al., 2017). The literature explains that the introduction of any ambitious environmental policy inevitably creates winners and losers (King et al., 2015; McShane et al., 2011; Sunderland et al., 2007). As a result, the losers will deploy various strategies to avoid being negatively impacted by the policy. The strategy that is favoured in Sabah is to build on existing patronage systems linking 'losers' with political authorities to create exceptions to policy implementation. The influence of patronage politics on law enforcement and on the consolidation of the rule of law has been widely documented, particularly in Southeast Asia (Fukuyama, 2013; Ingalls et al., 2018; Kong et al., 2019).

What is interesting in the case of Sabah is that the patronage system is used as a vehicle to manage trade-offs emerging from the introduction of new policies and the resulting conflicts of interest. For example, building on its close relationship with the Sabah Foundation, the state agreed to compromise on conversion of FRs to oil palm plantations in exchange for other areas becoming TPAs in the Foundation area. In addition, Class II FRs were logged indiscriminately before they were reclassified as Class I FRs (totally protected areas). The risk with this type of approach to trade-offs management strategy is that the interest of stakeholders not included in these patronage systems are not taken into account so that they might bear disproportionate costs from policy change.

Related to the patronage system is the impact of political turnover. In Sabah, when a new government comes into power, time is needed to harness its support for TC policies. These are often seen as more complicated than BAU ones, and that have been started by the previous government. This situation has delayed the progress of the RSPO JA. This result echoed the findings of Deacon (2012); Galinato and Galinato (2012); Sui et al. (2021), who found that countries that are politically stable are more likely to enforce forest and environmental protection policies. It also supports the literature of jurisdictional approaches, which shows that political turnovers could delay or even backslide green initiatives (Boshoven et al., 2021; Boyd et al., 2018; Colchester, 2020; Fishman et al., 2017). Deacon (2012) also stated that insecure tenure of the government will lead to an absence of government accountability in implementing these policies.

In addition to patronage and political turnover, Sabah's decision to follow international standards (i.e., FSC and RSPO certification), also contributed to explain the uneven implementation of its transformational policies. Andrews (2013), McCarthy and Tacconi (2011) and Geist and Lambin (2002) argued that, for a state to succeed with new environmental policies, the policies must be context specific and not follow international best practices standards. This could lead to unrealistic goals and a failed attempt to transform. This is often alluded as one of the main challenges to achieve FSC certification and RSPO JA in Sabah.

5.3. Determinants that enabled transformational change

We found that what distinguishes the policy change in Sabah from other environmental policies aimed at reducing deforestation at scale (e.g., REDD+) is that Sabah was not pressed by external actors to adopt these ambitious policies. Our research shows that local leadership and a local TC coalition, which we termed 'civil society influences', were the main determinants in adopting the policies. This result confirms findings from the literature on TC (Babon et al., 2014; Brockhaus, Di Gregorio, and Mardiah, 2014; Chia et al., 2019; Cole et al., 2017; Korhonen-Kurki et al., 2019, 2014). The literature indeed shows that national ownership, that is the fact that 'national actors are dominant in shaping and supporting the policy discourse on REDD+ [for example], and are involved in the development of policy documents, is an important condition for TC to occur (Brockhaus et al., 2017). The literature also stated that there needs to be the presence of dominant coalition(s) to want to break off from BAU practices, as in the case of Sabah (Di Gregorio et al., 2012).

However, the policy change processes in Sabah do not occur in complete isolation from external influence. The difference here from other situations were that there was no strong injunction from the international community to adopt external policies that came with promises of funding (e.g., REDD+). Here, we show that external pressure from the international community combined with prospects for increased access to the niche 'green' international commodity market and increased revenues from tourism are important determinants explaining the emergence of transformational policies in Sabah. This result confirms Pham et al.'s (2017) finding for Indonesia and Vietnam that an underlying determinant for TC is rooted in national economic development and seen as a way to improve the state's image in the international policy arena.

6. Conclusion

We finally would like to reiterate that Sabah did intend to change, but the intention was held back by the patronage system with actors that wielded their power to continue BAU activities. Other challenges were the frequent political turnover and the difficulty in meeting international standards, making Sabah's quest to change an uphill task. If these significant challenges could be overcome, Sabah would be in a good position to implement changes, as the state meets two important conditions generally considered as key for TC: national ownership and a dominant coalition (i.e., civil society) apparently pushing for TC. However, breaking free from path dependencies will be a major endeavour. To move from policy orientations to field implementation, the change must be made more compelling for political leaders, as part of a broader institutional structure, not only through the narrow focus on reducing deforestation with sectoral (and often marginal) adjustments, but above all through the development of a more sustainable and equitable national economy (Fishbein and Lee, 2015; Pacheco et al., 2012).

Implementing TC, beyond policy intentions, means that incentive structures must be aligned, accountability reporting improved, and the playing field levelled especially for the weaker actors (e.g., smallholders) (Larson et al., 2021; Pacheco et al., 2012). This requires innovative institutional reform by a government that not only protects the interest of the current generation, but the future one as well, with the technical support of the coalition (Pham et al., 2017). The TC coalition must also hold the state to the commitments made, especially when there is a political turnover or when a leader retires (Babon et al., 2014; Brandão et al., 2020; Brockhaus et al., 2014). Likewise, on the demand side, consumer countries will need to play a role in addressing the pressures to the forest. Incentives such as preferential procurement sourcing linked to certification schemes like the RSPO, and help in implementing incentive-based environmental taxation to support agricultural products based on zero-deforestation / sustainable forest management practices, need to be put in place (Karsenty, 2021; Pacheco et al., 2012).

Appendix A

List of literature focusing on transformational change aimed at reducing tropical deforestation or improving tropical forest management.

Babon, A., McIntyre, D., Gowae, G. Y., Gallemore, C., Carmenta, R., Di Gregorio, M., & Brockhaus, M. (2014). Advocacy coalitions, REDD+, and forest governance in Papua New Guinea: How likely is transformational change? *Ecology and Society*, *19*(3). https://doi.org/10.5751/ES-06486–190316.

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Assembe-Mvondo, S., Babon, A., Bekele, M., Benn, V., Gebara, M., Kambire, H., Kengoum, F., Maharani, C., Menton, M., Moeliono, M., Ochieng, R., Paudel, N., Pham, T.T., Dkamela, G., Sitoe, A. (2019). What drives policy change for REDD+ ? A qualitative comparative analysis of the interplay between institutional and policy arena factors. *Climate Policy*, *19* (3), 315–328. https://doi.org/10.1080/14693062.2018.1507897.

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