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Tragedy of the Anticommons (ToA) in Agricultural Land Partition involving Fragmented Co-proprietorships: An Analysis of Malaysian Case Laws

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ABSTRACT

There is a lack of understanding of the theory of the Tragedy of the Anticommons (ToA), a type of coordination breakdown or a hold-out problem involving multiple fragmented co-proprietorships with undivided shares, in the land partition context. This paper, hence, discusses how ToA occurs particularly in the agricultural land partition that is primarily governed under the National Land Code 1965 and proposes potential legal and non-legal approaches and mechanisms to address the land tragedy. An abductive content analysis of (9) case laws extracted from the LexisNexis database was performed through which themes and codes were developed to explain how ToA hindering land partition takes place. Subsequently, judicial decisions in solving disputes arising from land partition and existing best practices in dealing with the tragedy were reviewed. The case laws review indicated that unsuccessful agricultural land partition associated with high transaction costs in securing co-proprietors consensus is a form of simultaneous ToA, that most of the unpartitioned land (anticommons) may be subject to underinvestment (land mismanagement) and disuse. Key factors leading to disagreement among coproprietors and consequently ToA are as follows: (i) unequal (unfair) proportion or shares of land; (ii) uneven geographical partition and spatial distribution of government reserves; and (iii) potential damages and negative effects (e.g., loss of income and property). To address ToA, these are legal mechanisms proposed: statutory enforcement of the National Land Code (NLC) 1965 (via land forfeiture and reversion), the Land Acquisition Act (LAA) 1960 on compulsory land acquisition, and judicial decisions (e.g., land partitions may take place if it is fairly distributed and made by the majority shareholders), while non-legal approaches cover negotiation and arbitration; en-bloc sales (partition); collective action through enhanced social capital; and imposition of a tax on underutilised land. By showcasing various agricultural anticommons tragedies and their potential negative externalities in the land partition context, this paper offers policy and management insights that help land officers and local authorities ensure the maximum efficiency and productivity (i.e., highest and best use) of the land.

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1. Introduction

The word "fragmented" refers to a state of being small, incomplete, or broken off from its original part. It is also known as pulverisation, parcellation, and scattering of one farm with numerous spatially separated parcels (Demetriou, 2014), and it is normally owned by multiple owners. According to the National Land Code (NLC), multiple land ownership, also known as coproprietorship under the Malaysian law, is defined as "the holding of alienated land by two or more persons or bodies in undivided portions" (The National Land Code (Act 56 of 1965) & Regulations, 2020). Consent and approval from all co-proprietors are necessary to be secured when involving land dealing and/or development, which often brings complications. In this case, it can affect the land in various aspects, such as its development, economic value, and social relationships.

There are several main reasons causing land to be fragmented and therefore underutilised. Demetriou outlined four reasons which are inheritance, population growth, land markets, and historical/cultural perspectives. In some countries, it is a statutory requirement that the land of the deceased should be subdivided among all heirs. This makes land partition a continuous process, with each land parcel becoming smaller as generations pass through informal credit and inheritance systems (Demetriou, 2014; see also Khalid & Yusuf, 2012). According to Section 140(1) of the NLC 1965, land partition means land held under Registry or Land Office title by two or more persons as coproprietors is partitioned to vest in each of them, under a separate title, a portion of the land of an area proportionate as nearly as may be to his undivided share in the whole.

If the land partition is successfully undertaken, it opens up better development opportunities. In other words, for development to happen, developers or relevant landowners need to apply for land sub-division and land partition (only if applicable) specifically when the land is owned by multiple co-proprietors. However, the land partition process can be time-consuming and challenging, especially when the land is owned by many co-owners. For land to be partitioned, approval or consent by co-proprietors has to be obtained according to Section 141(1)(a) of the NLC. As opposed to private land with single ownership, land involving several coproprietors (also called anticommons) may prohibit development from happening (due to higher transaction costs in communication and reaching consensus from all co-proprietors) (see Figure 1); hence, this situation signifies that types and number of ownerships do matter and have significant impacts on the likelihood of success of land development and other land transactions (see Sulong and Taha, 2016).

When a land partition process is unsuccessful, any potential development may be hindered. Sulong and Taha argued that the fractured relationship between co-owners was one of the reasons leading to problems in land partition, citing Duyong Island development as an example where family problems had disrupted the development project. Additionally, co-owners with clashing visions to develop the land will lead the land to be left idle and

uncultivated (Sulong & Taha, 2016). The process of land partition itself is a big factor contributing to unsuccessful partition. Taking into account the enormous amount of transaction costs incurred and time spent during the process of partitioning, it might halt one's interest to take part (Khalid & Yusuf, 2012).

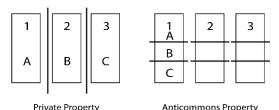


Figure 1: Differences between private property and anticommons property (source: Heller, 1998). Note that numbers (1,2, and 3) indicate land plots while alphabets (A, B, and C) entail owners

One of the best examples to visualise the real problems of multiownership in Malaysia is the Kampung Bharu case, which demonstrates there was no consensus and cooperation formed among owners. According to a paper presented at the briefing sessions for landlords in Kampung Bharu, the greatest problem faced is the multiple ownerships in addition to the existence of small, fragmented lot sizes with 31% of the lots owned by more than 5 owners/co-proprietors while the average land was owned by 8 to 30 co-proprietors. In terms of the land area, it is found that 83% of the lots have an area of less than 1000 square meters. A piece of land with an area of 809.345 square metres was owned by a total of 141 people, with its smallest portion of 7/424320 or 0.01335 square metres. All planned development and activities that may significantly increase the land value in Kampung Bahru by the Kuala Lumpur City Hall have been hindered as approvals are hard to be obtained from these co-proprietors (Sulong & Taha, 2016). This is largely due to individuals' behaviours and social relationships between co-proprietors.

Against the above background, which provides contextual issues of fragmented, multiple land ownerships, and that land partition is deemed to be an alternative to addressing the land predicament, this paper showcases that unsuccessful agricultural land partition and its potential consequences can be linked to the theory of the Tragedy of the Anticommons (ToA). The Tragedy of the Anticommons (ToA) is a mirror image of the Hardinian Tragedy of the Commons (Parisi et al., 2000). The Anticommons tragedy theory was first introduced by Michelmann in 1982 and was popularised by Heller and is deemed as a coordination breakdown or hold-out problem. Anticommons is a gap that exists in the ownership spectrum and highlights the dilemma of fragmented ownership of private property (Heller, 2013). Heller (1998) further asserted that "When too many owners hold such rights of exclusion, the resource is prone to underuse- the tragedy of the anticommons...resources can become stuck in low value uses." In short, anticommons is a paradoxical concept (see Ying, 2019) where on one hand, private ownership is usually deemed to be an effective regime to address the Hardinian commons tragedy and simultaneously increase the efficiency of the use of scarce resources, but the tragedy, unfortunately, occurs due to the existence of multiple private owners, endowed with exclusive

rights over a scarce resource, preventing others from using it hence resulting in underused, underinvested, and underdeveloped resources (in this case, resources are referred to as land) (see Parisi et al., 2000).

This phenomenon, similar to the tragedy of the commons, is another depiction of a social dilemma (i.e., conflicts occur between individual interests and collective interests) (Ling et al., 2019a,b; see also McCarter et al., 2019); due to the selfinterested behaviour of a landowner, prohibiting any optimal use of land, land dealings and development (e.g., partition, subdivision, conveyance and lease), both collective (other owners') interests and land resources outcome are compromised. McCarter et al. (2012) likened this phenomenon to a saying of 'too many cooks spoil the broth' where cooks here are referred to as owners/co-proprietors that each of them can make decisions influencing resource outcomes. Rather than fragmented ownership, Heller viewed the formation of ToA as a result of fragmented decision-making. Additionally, the existence of many uncoordinated actors, such as different legislators, agencies, and courts could also become an obstacle to the resource (Heller, 2013). These parties must agree on common ground, otherwise, the resource will remain idle. Although some scholars suggested gathering all rights in usable private property as a way to abate this problem, this approach can be tedious and complex hence making it unfavourable (António Filipe et al., 2011). Based on the literature search, much ToA research has been conducted across ownership or property rights subjects, ranging from patents and intellectual property rights, water markets in the United States (Bretsen and Hill, 2009), enterprise licensing in China (Ying and Zhang, 2008) to cyberspace (i.e., internet) (Hunter, 2003). Application of ToA in urban and land resources (e.g., land dealing and development) is not entirely new (Lueck and Miceli, 2007). For example, see Lin and Huang, 2013 on ToA in the urban redevelopment in Taiwan, see Takamura et al., 2021 and Takahashi et al., 2021 on TOA in common property forests in Japan; Loehr, 2012 on ToA in land reforms in Cambodia, Ying, 2019 on ToA in new building and infrastructure development in China; however, compared to the Hardinian Tragedy of the Commons, ToA is still a foreign concept and its potential solutions have been paid less attention, especially in the agricultural land partition context in Malaysia, despite various aforementioned partition issues have implicated underutilisation of agricultural land and ToA. Hence, this paper has a twofold objective. First, to theorise and discuss how ToA occurs in agricultural land partition involving multiple fragmented ownerships with undivided shares that are primarily governed under the NLC 1965 (Act 56). Second, to propose legal and nonlegal mechanisms and approaches to addressing the land tragedy. To encapsulate the above discussion and intentions of the study, a conceptual framework is provided in Figure 2, demonstrating how anticommons property and unsuccessful land partition due to various factors lead to the ToA that consequently requires both legal and non-legal interventions. The remainder of the paper is structured as follows. In Section 2, the methodology covering both data collection and types of analysis is presented. Then in Section 3, results and discussion are reported, following the conclusion in Section 4.

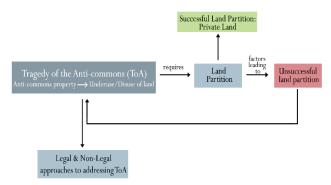


Figure 2: Tragedy of the Anticommons in agricultural land partition

2. Methodology

2.1 Data Collection

This study was primarily based on empirical secondary data (case laws) and the literature review on best practices for ToA abatement. While the literature was sourced from key journals such as the International Journal of the Commons and the Journal of Forest Research mainly covering research areas of new institutional economics and land economics for collective resource/goods management, case laws were extracted from the LexisNexis database using the following keywords, namely 'Anticommons', "Land partition -co-proprietors" and "land partition-agricultural land". Initially, using the approach of PRISMA, a total of 475 cases were identified based on the keyword "land partition" alone, and the cases were reduced to 102 when combining land partition with another keyword, i.e., co-proprietorship. However, after further screening those cases with another keyword "agricultural land" and other sub-criteria, such as problems of, and factors leading to, unsuccessful land partition, only nine (9) cases were selected and included for content analysis. The selected cases ranging from 1991 to 2020 involved 2-6 individuals, mostly had been held at the level of High Courts and several at the Courts of Appeal. In terms of geographical settings, most of the cases were based in West Malaysia where land matters are governed under the NLC 1965, and only one case was from Sarawak (East Malaysia) using the Sarawak Land Code.

2.2 Data Analysis

This study adopted abductive content analysis (i.e., combining deductive coding: predefined codes from the literature review and inductive coding- open coding based on data). According to Timmermans & Tavory (2012), abductive analysis is a qualitative data analysis, aimed to generate creative and novel theoretical insights. This analysis emphasises the importance of observing and developing new concepts from the empirical cases, simultaneously building on preconceived theoretical ideas. Therefore, through the engagement of data with a multiplicity of theorisations, the abductive approach is believed to be more robust and comprehensive in encapsulating possible themes and

codes in this study. Table 1 describes the types of analysis and key themes used for the twofold objective.

 $\begin{tabular}{l} \textbf{Table 1:} Types of analysis and themes established for the twofold objective \\ \end{tabular}$

Objective	Types of	Key Themes
	Analysis	-
1st Part: Factors	Abductive	Factors:
causing land	approach: using	-unfair share of
partition failures,	both deductive	land
as well as potential	and inductive	-uneven
consequences on	codes for factors	geographical
the land	causing	distribution and
	unsuccessful land	placement of
	partition and	reserves
	deductive codes	-negative impacts
	for the potential	of land partition:
	consequences of	loss of income
	land as a result of	Potential
	unsuccessful land	consequences:
	partition.	-underused,
		disused land,
		underinvestment,
		abandoned, idle,
		land
		-low values of
		land, opportunity
		costs of

		unsuccessful land
		partition
2 nd Part: Legal and	Abductive	-Land partition
non-legal	approach:	may be allowed if
mechanisms and	inductive coding	co-proprietors
approaches to	on judicial	have the majority
solving ToA in	decisions;	of shares
relation to land	deductive coding	-Unfair and unjust
partition	on statutory	spatial
	provisions of land	distribution may
	laws, as well as	lead to dismissal
	best practices	of land partition
	from the	- En bloc sales,
	literature review	collective action,
		social capital,
		taxation, statutory
		enforcement,
		negotiation

3. Results and Discussions

3.1 An Analysis of Case Laws

A review summary of 9 Malaysian case laws on agricultural land partition issues is shown in Table 2. For a more systematic coding process of the case laws, the summary comprises the following: (i) Names of the cases; (ii) year; (iii) facts and issues; (iv) judges' verdicts and reasonings; and (iv) potential implications of land in relation to ToA.

Table 2: A review summary of the 9 case laws

Cases	Year	Facts and Issues	Factors Leading to	Judicial Decisions and	Potential Implications
Cases	1 car	racts and issues	Land Partitioning	Reasoning	of Land in relation to
			Issues	Reasoning	ToA
Ku Yan Bte Ku Abdullah V Ku Idris Bin Ku Ahmad & Ors [1991] 3 MLJ 439	1991	This partition involved one plaintiff with a 5/7 share and four defendants with a total of 2/7. The Plaintiff's first application together with a proposed plan to the Land Administration was rejected and brought to the High Court. Later, the application was amended, and a new plan was included.	Defendants argued that they were not informed and did not give consent to the land partition.	The objection was dismissed. Co-proprietors with the majority of shares can apply to the High Court for partition without others' consent.	By allowing the partition to happen, the Plaintiff may be able to commence her plans to develop the land at its best prospect. Since the land partition was allowed, ToA may not occur.
Ngu Leh Ngiik & Anor V Lee Yiu Ping & Ors [2019] 4 MLJ 681	2019	The appeal involved 2 Appellants and 4 Respondents. Appellants and Respondents had consented to a plan (A1) prepared by the surveyor, dividing the shared piece of land into two parts according to their shares which are 69/240 (Appellants) and 171/240 (Respondents).	Appellants opposed as they were allegedly deceived into signing. Additionally, A1 reduced their share of land and did not provide proper access to the second Appellant's building from the main road. The Appellants also stated that their consent as coproprietors is important to be considered.	The appeal was dismissed. Consent from other co- proprietors is not required. A1 was drawn by a qualified surveyor and has been approved by the Land and Survey Department of Sibu. Also, the partition included an existing road that connected subdivided plots hence the Appellants' claims were refuted.	The land could be developed to its best use, hence the value of the proposed partitioned land will be enhanced. This case has been brought to the Court of Appeal, signalling that the Appellant tried refuting the High Court's decision. The Appellant's appeal had only increased the transaction costs of the whole process.

					Since the land partition was allowed, ToA may not occur.
Naik Diew Kong V Ling Sing Hang & Co Sdn Hhd & Ors [2016] MLJU 1518	2016	The case involved one plaintiff against three defendants to partition the land. Plaintiff is a coproprietor with ½ share of land while the defendants each have 1/6.	Defendants refused to give consent when given the Notice.	The partition was not allowed. The 1st Defendant's application was allowed with cost. The court views Plaintiff's OS as no reasonable cause of action. The Plaintiff could not rely solely on the power of court for partition but must prove that he initially intended to apply to the Land Administrator but was forced not to, due to the absence of cooperation from other coproprietors.	Unsuccessful land partition is an opportunity cost; if partition were to take place, the land might have been developed to its highest and best use. Delaying land partition incurs higher costs which subsequently increases potential transaction costs. The unpartitioned land is believed to be subject to ToA.
Zuriati Binti Osman V Butterworth Lim Construction Sdn Bhd [2020] MLJU 467	2020	The land was owned by 3 co-proprietorships namely Saw, Plaintiff, and Defendant. Saw and the Plaintiff both owned 2/3 shares of the said land and wished to partition the land according to the proposal made by both parties.	The Defendant had rejected the partition and the Plaintiff's proposal due to the existing electrical power line and a service road running over the Defendant's plot.	Plaintiff's application was dismissed. Despite Section 145, the proposed land partition by the Plaintiff is deemed unjust towards the Defendant.	Since the unpartitioned land is situated in a valuable area, it is an opportunity cost for the land as it risked losing future development to take place and thus the underinvested land cannot be developed to its highest and best use (higher value). This situation is a form of ToA.
Moo Hon Yee V S Abdul Rahman Bin Pak Shaik Abdul Kader [2018] MLJU 1822	2018	The Plaintiff applied for termination of coproprietorship for a land he bought from a third party in an OS. The case involved a plaintiff with ¾ undivided share of the agricultural land and the Defendant owning the remaining.	The Defendant refused as Plaintiff's plan will demolish some part of the Defendant's grocery shop. No compensation was offered to the defendant. Additionally, the Defendant's partitioned land value (based on the Plaintiff's plan) would be lower compared to the present value as it was close to a small lane (not the main road).	The OS was dismissed hence partition did not take place. However, both parties were at liberty to make a fresh Section 145 application with credible evidence from the surveyor and valuers.	The Plaintiff should have provided compensation to the Defendant and redesigned the partition layout to possibly achieve a win-win solution for both parties. Since the Plaintiff did not do so, he lost the opportunity to develop the land to its highest and best use which may offer higher value to the land (i.e., opportunity costs). Therefore, ToA may occur.
S Subramaniam & Ors V Inderjit Kaur D/O Karnail Singh & Anor [1997] 3 MLJ 366	1997	Plaintiffs are the majority co-proprietors and wanted to partition land to obtain a separate title. The case involved 4 Plaintiffs and 2 Defendants.	Defendants did not give consent to the land partition.	The application was dismissed. The court did have power but was limited to a certain extent. Hence, only when the application was rejected by the Land Administrator, the Plaintiff may come to a court to seek redress.	Land may require a separate title to allow development to take place. Although Plaintiffs owned the majority of the shares, due to the procedural issue of the partition application process, the land partition was unsuccessful. This case can be likened to ToA as potential development and dealing that may increase land value are prohibited.
Koh Boh Huat & Ors V Tan Niam Neo & Anor [2007] 1 MLJ 328	2007	Plaintiffs received a proposal for development from a company. Plaintiffs owned 9/10 of the undivided share while the defendant owned the remaining. The Defendants were notified of this through a letter and the	The Defendants refused to allow the partition with no reasonable ground for objections.	Partition was allowed. So long as partitioned plots must be more than 0.4 hectares. The court helped facilitate the termination of the coproprietorships.	Since the court helped facilitate the termination of the co-proprietorships, the developer company will be able to get the partitioned land from the co-proprietors and hence develop the land according to plan. This development

		T			
		proceeds of the sale will be			will increase the land value.
		distributed according to the			Thus, ToA, in this case,
-		shares with no prejudice.			may not occur.
Tong Ah Kau	2015	3 Plaintiffs applied for the	The Defendants cited that	Partition was allowed. The	When the land partition
@ Tong Fong		partition of agricultural land	the OS would disappoint a	judge decided that the word	was allowed, it opened up
Yam Dan Lain-		of 5.8932 hectares against	few applications done to	'may' used in the NLC did not	for more potential
Lain V Tong		Defendants (3 individuals).	the Court, and it was	refer to a must, hence making it	development hence the
Faung Onn &		Plaintiffs were the co-	beyond the Court's power.	an option. Reasonings provided	land could be developed to
Lain-Lain		proprietors with the	Additionally, they stated	by the Defendants were	its highest and best use.
[2015] MLJU		majority shares of 24/45.	that no discussion was held	discarded as there were no basis	Defendant's refusal had
1984			between all parties by the	and untrue, and the partition	only increased the
			Plaintiffs before the	was fair.	transaction costs of the case
			application and plan were		which involved more time
			made.		and costs. Thus, ToA, in
					this case, may not occur.
Phang For	2019	The Plaintiff owned 15/30	Defendants opposed the	The OS was dismissed with	Although the unpartitioned
Fatt V Phang		of the undivided share while	Plaintiff's proposed	costs. The land partition was	land would generate
Meow Fook &		the 1st Defendant owned	subdivision as it was	not allowed. The land had been	income for the Defendants
Anor [2019]		$10/30$ and the 2^{nd}	deemed unfair, unjust, and	used as a source of income for	(probably for the short
MLJU 1199		Defendant 5/30. The land	unconscionable as it is	the Defendants and Plaintiff's	term), it incurred a greater
meja 1199		was used for the cultivation	uneven. The Defendants	family and both Defendants	opportunity cost (loss) for
		of fruit trees. However, the	would receive a	were dependent on it. An	the land as future
		Plaintiff decided to	substantially rocky and	unequal division of the land	development with high
		terminate the co-ownership	uncultivated part of the	would certainly affect the	economic values leading to
		and proposed a plan, made	land, compared to the	livelihood of the Defendants.	its best and highest use
		by a qualified surveyor. Plot	subdivision that would be		would be stymied. A
		1 would be given to the	received by the Plaintiff		partition of land with a
		Plaintiff as his family has	which was filled with fruit		separate title provides
		been residing there while	trees.		freedom to its owner to
		plot 2 was to be given to the			develop the land to its full
		1st Defendant.			potential. Unpartitioned
					land would be subject to
					future problems that might
					arise between both parties,
					which will increase
					transaction costs for all
					parties as the problem
					persisted through
					generations. Thus, ToA
					may occur.

3.2 Factors leading to unsuccessful land partition

The above cases in Table 1 illustrate land partition problems that mostly occurred (whether the partition is successful eventually) are due to underlying disagreement and discontentment among co-proprietors. Apart from the land partition procedural issue (see *S Subramaniam & Ors V Inderjit Kaur D/O Karnail Singh & Anor [1997] 3 MLJ 366*) and uneven spatial placement and positioning of reserves (see Zuriati Binti Osman V Butterworth Lim Construction Sdn Bhd [2020] MLJU 467) resulting in dismissal of land partition, the most prominent causes of objection is attributed to the feeling of discontent with the unequal (unfair) quantum or proportion of land received. Sulong and Taha stressed the importance of finding the middle ground between all co-proprietors as any unhappy feelings might hinder future land activities, which therefore leads to abandonment of land hence allowing ToA to happen (see Sulong & Taha, 2016).

In cases such as Ngu Leh Ngiik & Anor v Lee Yiu Ping & Ors [2019] 4 MLJ 681 and Moo Hon Yee v S Abdul Rahman Bin Pak Shaik Abdul

Kader [2018] MLJU 1822, the Defendants objected to the application due to potential damages and negative effects (e.g., loss of income and property) and unfair shares of the land partition. The proposed plan drawn by Plaintiff did not propose direct access from the main road and contains a services road. These issues put the Defendants (other co-proprietors) in a disadvantaged position. Furthermore, as seen in the case of Phang For Fatt v Phang Meow Fook & Anor [2019] MLJU 1192, since the land has been a source of income for the Defendants where the land had been cultivated by three families for decades, and the profits from the fruit sale were divided between them all, an unequal division or share would affect their livelihood.

3.3 Judges' Verdicts on Land Partition Issues

Based on judges' decisions, Table 2 provides cases comprising both successful and unsuccessful land partition instances in which 5 of them, which had been held unsuccessful, can be associated with ToA. Two primary reasons are leading to the judge's

dismissal of the land partition. Firstly, it is common for the judge to dismiss a partition application when the application itself did not fulfil the requirements that allow the court to exercise its power to facilitate termination. Next, according to Section 136, a subdivided land has to fulfil a few criteria which include a subdivided agricultural land to be not less than two-fifths of a hectare or 0.4, having a shape that is suitable for the purpose for which it is intended to be used and the availability of a satisfactory means of access from each portion either to a road, a river, a part of the foreshore or a railway station or to appoint within the land where access is available. Hence, plaintiffs who did not fulfil these criteria have a high possibility of having their application dismissed by the judge. Secondly, the land partition should be reasonably fair, proportionate, and even in terms of the quantum of share units of the partitioned land and the spatial distribution and placement of government reserves to all co-proprietors regardless of being minority or majority shareholders. In the case of Phang For Fatt V Phang Meow Fook & Anor [2019] MLJU 1192 the Plaintiff's application for land partition was rejected as it would violate one of the above criteria.

Nevertheless, judges could decide to approve a land partition application based on a few reasons. Although any co-proprietor (whether majority or minority) could apply for a partition, it is apparent that being a majority co-proprietor and an administrator provide some leverage in winning the case. As seen in the cases of Ku Yan bte Ku Abdullah v Ku Idris bin Ku Ahmad & Ors [1991] 3 MLJ 439 and Koh Boh Huat & Ors v Tan Niam Neo & Anor [2007] 1 MLJ 328, espousing Section 141A of the NLC, even without other coproprietors' consent, the land could be successfully partitioned so long as applicants are the majority co-proprietors who also provide sufficient, valid documents and plans, made by a qualified surveyor or such co proprietorship could be terminated by the court (see Section 145 of the NLC) (see also Ngu Leh Ngiik & Anor V Lee Yiu Ping & Ors [2019] 4 MLJ 681). While, in the case of Boh Huat & Ors v Tan Niam Neo & Anor [2007] 1 MLJ 328, this rule was used by the judge to terminate co-proprietorship if the subdivided/partitioned land is not less than 0.4 hectares each as clearly stated in Section 136(1)(f)(i) and Section 145 of the NLC.

3.4 Alternatives to Curbing the Tragedy of the Anticommons (ToA)

3.4.1 Malaysia's Statutory Mechanisms via Land Acquisition Act 1960 and National Land Code 1965

Apart from the above judicial decisions on the land partition that could likely take place, importantly transitioning anticommons property to private property, to help prevent ToA, there are other legal mechanisms which include the exercise of compulsory land acquisition via the Land Acquisition Act (LAA) 1960, where it allows the State Government to acquire land from private landowners for public or economical purposes (normally for large-scale projects with higher values) as outlined in Section 3(1) of the LAA, without needing to obtain consents from coproprietors, in principle, so long as proper notifications and declaration forms (see Sections 4 and 8 of the LAA) are served. However, although affected landowners will be adequately

compensated according to the Federal Constitution (see Article 13(2)) based on the market value of the acquired land, this measure is considered drastic since it involves high transaction costs and could result in dispossession and eviction of landowners. Furthermore, also relevant to the multiple ownership regime, through Section 127(1)(a) of the NLC, breach of any conditions of the land, especially the implied one (being underused or underdeveloped owing to the above co-proprietors coordination breakdown possibly leading to ToA) may result in land forfeiture to the State Authority. In addition to Section 127, Section 46(1)(c) of the NLC on the reversion of land to the State Authority, due to the circumstances mentioned in Sections 351 and 352 (which relate respectively to the death of a proprietor without successors, and the abandonment of title by proprietors eventually leading to underinvestment and underuse of land) can be enforced. Implicationally, the above legal mechanisms proposed can change anticommons property to state property (state land), that the latter, which is freed and discharged from interests and titles, is believed to be more feasible for potential development (via land alienation)

Despite the availability of these legal avenues, they are not likely to be enforced due to several factors (i.e., high transaction costs involving complex and time-consuming processes and procedures and multi-stakeholder coordination). Still, they are worth being imposed where necessary and particularly made known to the public (co-proprietors) facing land fragmentation and decision-making and coordination breakdown, as a form of penalty, to avoid land abandonment (underuse) and thus ToA. It is hoped that via the awareness of the legal implications of underused land, full cooperation and consensus will be reached among co-proprietors through non-legal approaches.

3.4.2 Non-legal Approaches and Mechanisms

3.4.2.1 Negotiation or Arbitration

Negotiation via effective communications could help facilitate discussions between co-proprietors to reach a consensus on the optimum division of land to address the land partition dispute. However, if negotiation is not possible, arbitration, an alternative dispute resolution governed under the Arbitration Act 2005, can be employed instead in private with an arbitrator being an impartial third party (private judge) to obtain a collective decision. There are several arbitration avenues available in Malaysia to suit different needs (i.e., at the district land office, the courts, private or semi-private bodies). To resolve the land fragmentation issue, it is the utmost priority to provide solutions that will keep the land intact (Khalid & Yusuf, 2012). Negotiation or arbitration (outside of court), which is less formal, is believed to be more cost-effective and less time consuming compared to court proceedings.

3.4.2.2 En-bloc Sales & Partition of Anticommons

A collective sale is a type of collective action that involves multiple owners, usually in a strata development agreeing to sell their separate units to the same party or joint venture to allow redevelopment of the site and be paid a market price. Often, said land possessed a great potential through development that could easily elevate its value higher than the individual units' aggregate value, or it is not optimally utilised (Christudason, 2009). In the case of a collective sale, each member or co-proprietor can work together and form an agreement to sell their units and therefore contribute to a greater good, which in this sense is to allow development to happen hence ensuring that the land is used to its full potential with minimal government intervention. This is possible through the presence of trust, a sense of justice, and reliability, which act as a catalyst that leads to a collective act, rather than selfishness as provided by the rational egoism theory (Kremer et al., 2019; Ostrom, 2005) (see the next section on enhanced collective action via social capital). Although the collective/en bloc sale method is predominantly used in strata schemes, this mechanism is also deemed applicable to multiple land ownership (i.e., anticommons property), particularly in addressing dealing restrictions faced by unpartitioned land. This entails that instead of promoting land partition to sell the land individually, which may not be optimal and efficient in terms of land use planning, collective sale (conveyance) of unpartitioned land (anticommons) can be preferable in this case to promote a larger scale of development (i.e., higher land or property value) and therefore avoid the anticommons tragedy.

To implement en bloc sales of stratified units or anticommons more effectively, every country has a different majority percentage threshold. Once the threshold is achieved, although there are a minority of owners or shareholders opposing the dealing, the sale will be effective. This is similar to the land partition approach, as it is difficult to reach full agreement from all co-proprietors to consent to the transaction of property; thus, a partition, ceteris paribus, is normally allowed when the majority of co-proprietors have agreed to it. For example, in Singapore, development of fewer than ten years old requires consent with at least 90% of the share value meanwhile developments that are more than ten years old must obtain a percentage of at least 80% of the share value (Christudason, 2012). Similarly, Australia, under Part 10 of the Strata Schemes Development Act 2015 calls for a 75% or more approval rate to effectuate a sale or redevelopment (Strata Schemes Development Act 2015 No 51, 2015). Based on some of the best practices, an ideal range of majority percentage that could be adopted by the Malaysian legislation body to pass a collective sale would be between 75% to 80%. This proportion or percentage suggested can be a good guide for the case of land partition, since there is no explicit definition of the word "majority share" used in the NLC 1965, which is often interpreted as more than 50%.

3.4.2.3 Collective action via enhanced social capital

The term social capital encapsulates the idea of social bonds and norms that facilitates a sustainable livelihood, eliminating dilemmas that arise in a community through collective action (Halimatussadiah, 2013; Pretty, 2003). It accelerates cooperation in the community through important aspects, such as trust, communication, reciprocity, common rules, norms and sanctions and connectedness (Halimatussadiah, 2013; Pretty, 2003; Wiesinger, 2007). Through social capital, a sustainable livelihood is possible as the community develops to improve their social and

physical situation with all residents' interests addressed. Thus, rather than being passive, community is at the centre of decision making, making them in charge of their situation instead of only reacting to it (Grewe, 2003).

The core of social capital lies in trust between social actors (Pretty, 2003). The presence of trust will indirectly reduce the transaction cost as there is little need to monitor others. Trust calls for a social obligation to reciprocate whether in the form of specific or diffuse reciprocity that will generate a long-term obligation, which has a positive impact on the community. It is normal for co-proprietors to be related as siblings or family members for instance since unpartitioned, fragmented land (anticommons) is mostly inherited; hence, social capital becomes particularly crucial in this context. The presence of trust in this context giving lower transaction costs could expedite and facilitate the process of land partition and thus development, which leads to higher property value. With strong social capital, common interests can be established among co-proprietors, creating homogeneity in terms of objectives and vision in the community that consequently helps achieve a unanimous decision concerning land partition.

The above arguments strengthen the notion that social capital is an ideal solution to land partition problems involving fragmented co-ownerships (anticommons). Rather than imposing rules and regulations and taxes from external authorities, social capital is a self-enforcing method that provides better long-term improvement. Having the opportunity to create their collective rules and incentives (motivations) and establish sanctions, these co-proprietors can solve land partition problems of their own accord more effectively (see Takahashi et al., 2021).

3.4.2.4 Tax Imposition

To curb land underutilisation, many countries including Washington D.C of the United States, the Philippines, and some Latin American countries, have policies and indirect interventions in the forms of taxation that are under government regulations. Governments would impose a tax on underused or underinvested agricultural lands (FAO, 1986)(whether they are associated with the anticommons tragedy). Such imposition of a high tax is necessary and can be further explored as it could act as a warning/penalty to co-proprietors to discourage the holding of idle anticommons property (see FAO, 1986; Bird and Slack, 2002). As a consequence, tax imposition on anticommons property may promote cooperation behaviours among coproprietors, thus addressing ToA. Meaning that, to avoid the levy or tax imposed on disused land, (i) co-proprietors may collectively agree to partition the land to have a separate title, i.e. see Figure 1 that private property is better in incentivising land dealing and development) (Sulong & Taha, 2016); (ii) en bloc or collective sales to the same entity (i.e., developer for high-value development) can be a likely option, as well as (iii) collective action among communities, although challenging, to maintain the fragmented anticommons property should be promoted.

4. Conclusion and Recommendations

The Tragedy of the Anticommons (ToA) by Michael Heller has highlighted a gap that exists in the property ownership spectrum. Its application in dealing with land ownership has been widely recognised by numerous scholars but remains limited in the agricultural land partition setting. Therefore, the objectives of this paper are to (i) conceptualise the ToA theory in the agricultural land partition context that involves multiple fragmented co-proprietorship with undivided shares and (ii) suggest legal and non-legal approaches that could help address this tragedy. Through the lens of ToA, where 9 Malaysian case laws were reviewed, the paper affirms (simultaneous) anticommons issues involving agricultural land partition (see Parisi, 2004). Underused or idle land (or ToA) is likely to occur if such anticommons partition is not undertaken. Based on the findings, key factors contributing to unsuccessful agricultural anticommons partition, essentially due to disagreement among co-proprietors, and consequently ToA are as follows: (i) unequal (unfair) proportion or shares of land; (ii) uneven geographical partition and spatial distribution of government reserves; and (iii) potential damages and negative effects (e.g., loss of income and property). To remedy ToA, while legal mechanisms cover statutory enforcement of the NLC 1965 (via land forfeiture and reversion), the LAA 1960 on compulsory land acquisition, and judicial decisions (e.g., land partitions may take place if it is fairly distributed and made by the majority shareholders), non-legal approaches suggested are negotiation and arbitration; en-bloc sale and/or partition; collective action through social capital; and imposition of a tax, as a penalty, on underutilised land.

The contribution of this study is twofold: (i) theoretically and conceptually, the study employed the theory of ToA in demystifying land partition and ownership issues occurring in Malaysia through an empirical case laws review where factors leading to unpartitioned land and potential implications are discussed; and (ii) the study suggests the importance of understanding ToA and its effects in the land partition context as well as offering insights to policymakers on possible legal and non-legal solutions that could help remedy ToA and its negative externalities that are caused by unpartitioned anticommons. This is crucial to ensure such agricultural land (anticommons) is optimally and efficiently used and managed to achieve its highest and best use, therefore contributing to the Sustainable Development Goal (SDG) 11 on sustainable cities and communities in Malaysia. Despite the above contributions, as this study was carried out solely based on literature review and analysis of secondary data such as case laws, research articles, and statutes, future empirical research could consider including stakeholders' (e.g., land officers, town planners and affected landowners) inputs via questionnaire survey and interviews supported with official documents and site observations (i.e., agricultural anticommons conditions) to further validate and expand the above findings.

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