Are Landscape Approaches possible under authoritarianism?

Multi-stakeholder governance and social transformation in Myanmar

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ABSTRACT

Landscape Approaches have been proposed as a transferable model of multi-stakeholder governance, yet assume conditions of ideal speech, trust, and transparency that seem untransferable to authoritarian regimes. This paper argues that building Landscape Approaches under authoritarian conditions cannot be based on a governance deficit model of awaiting idealized political conditions, but instead needs to pay attention to how local social and political structures influence what is deliberated, and by whom. The paper presents evidence from a multi-stakeholder environmental intervention around Lake Indawgyi in Kachin State, Myanmar, to draw lessons for transferring Landscapes Approaches under conditions of political authoritarianism, sporadic violent conflict, and rapid socio-economic change. Using information gathered from village surveys and interviews with policymakers, the paper analyzes how multifunctionality, stakeholder engagement, and deliberation are achieved, and with whose influence. The paper argues that common principles of Landscapes Approaches need to acknowledge more how state-led agendas can influence agendas and participation in conservation; but also how the composition and interests of stakeholders are not fixed under socio-economic transformation. Focusing on local and contextual drivers of environmental change and political inequality are more useful for transferring Landscape Approaches to authoritarian regimes than adhering to optimistic principles, or testing associations between variables without reference to context. Indeed, the latter risks depoliticizing conflictual processes, and implicitly endorsing political inequalities. The 2021 military coup in Myanmar has added to these inequalities.

KEYWORDS: Landscape Approaches; multi-stakeholder governance; transformation; multifunctional landscapes; Myanmar

1. INTRODUCTION

Landscape Approaches are now discussed as a form of multi-stakeholder environmental governance that use inclusive deliberation to achieve multi-functional and multi-scalar land uses (Axelsson *et al.*, 2011; Fisher *et al.*, 2008; Reed *et al*., 2015). There are, however, significant questions about how far Landscape Approaches can be used under less inclusive political conditions. Much early discussion proposed that Landscape Approaches could be applied successfully by following general principles of inclusiveness and transparency (IUCN, 2008; Sayer *et al.*, 2013). Over time, however, critics have suggested that using principles alone represents a "management ethic" rather than a theorized and testable framework of how different principles relate to each other (Erbaugh & Agrawal, 2017, p. 4453). Increasingly, analysts agree that Landscape Approaches need to be seen more of a "process" than rigid formula (Reed *et al.*, 2017b). Yet, it is clear that many threats to land use/land cover in developing countries are also in authoritarian regimes where many general principles of Landscape Approaches do not yet apply.

This paper contributes to the study of Landscapes Approach processes by urging more attention to local political structures and context rather than general principles, tested or not. The paper argues that basing the Landscape Approach upon generalized principles implies a deficit model of governance that awaits the achievement of idealized conditions rather than understanding what steps can be done now. This argument is especially important in seeking to apply Landscape Approaches to authoritarian political regimes, or where socio-economic transformations are occurring so fast that the identities of stakeholders and problems are also changing. In effect, this paper calls for a greater attention to political economy and contested knowledge within Landscape Approaches rather than a reliance on cognitive or rational choice approaches alone (Clay, 2016; Cockburn *et al.*, 2019; Forsyth, 2005).

To illustrate these points, the paper presents evidence from a multi-stakeholder governance intervention around Lake Indawgyi, the site of Myanmar's largest freshwater lake. This zone is undergoing rapid commercialization simultaneously with authoritarianism and sporadic violent

conflict. The paper asks: What are the challenges for implementing Landscapes Approach processes under these conditions? How far are three core principles of Landscapes Approach principles of multifunctionality, stakeholder engagement, and deliberation achievable? And what lessons can be drawn for achieving multi-stakeholder governance through the Landscapes Approach under authoritarianism? The paper argues that generalized principles of governance can contain tacit models of participation and problem solving that can blind policy interventions to the structural causes of environmental change and political inequality found under authoritarianism. Acknowledging these tacit assumptions, and the role of local structures, can help build Landscapes Approaches, and make them more inclusive, under these conditions.

2. LANDSCAPES APPROACHES AND MULTI-STAKEHOLDER GOVERNANCE

Landscapes Approaches have been discussed since the 2000s as a means to "provide tools and concepts for allocating and managing land to achieve social, economic, and environmental objectives in areas where agriculture, mining, and other productive land uses compete with environmental and biodiversity goals" (Sayer *et al.*, 2013, p. 8349). A key part of this approach is multi-stakeholder deliberation aiming to "shift the center of gravity of decision making to local people" (Sayer *et al.*, 2013, p. 8356). Landscapes Approaches have entered policy discourses through the creation of the Global Landscapes Forum (GLF) at the 19th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in 2013, which defined the approach as building multifunctional landscapes based on dialogue between governments, local stakeholders, conservationists and investors (Global Landscape Forum, 2019). Indeed, some analysts have called it "a driving paradigm in the international environmental and development community" (Freeman *et al.*, 2015, p. 24), also inspiring debate about climate smart landscapes (Minang, van Noordwijk*, et al.*, 2015). Landscape Approaches have been discussed by the World Bank, Food and Agriculture Organization of the United Nations, and International Union for the Conservation of Nature (Pfund, 2010).

Landscape Approaches are distinctive because they accept that sectorial approaches to land management are no longer sufficient, and instead seek to integrate multiple simultaneous objectives such as poverty alleviation, biodiversity conservation, and climate change policy (Reed *et al.*, 2015; Reed *et al.*, 2017a). In this sense, Landscape Approaches expand previous experiments in integrated conservation and development programs (Freeman *et al.*, 2015, p. 24; Sayer *et al.*, 2013, p. 8350). They also reflect ecological science's long history of viewing landscapes holistically "as tangible, mixed natural and cultural interacting systems" (Naveh, 2001, p. 10; Troll, 1971) or as mosaics comprising spatially connected ecological units defined by structure and function (Forman & Godron, 1986). Unsurprisingly, there are strong overlaps between Landscape Approaches and the Ecosystem Approach of the Convention on Biological Diversity, which recognizes that humans, with their cultural diversity, are an integral component of ecosystems (Sayer & Maginnis, 2005). Indeed, Landscape Approaches and ecosystems approaches are often used interchangeably (Sayer *et al.*, 2013, p. 8350).

Landscape Approaches are underlain by five guiding concepts of multifunctionality, transdisciplinarity, participation, complexity, and sustainability (Freeman *et al*, 2015; Garcia-Llorente, *et al.* 2012). Other analysts have specified "principles." The IUCN proposed the so-called "Lally principles" and "Sangha guidelines" (IUCN, 2008, p. 14). Later, Sayer *et al* (2013) updated and distilled these ideas into ten principles (see Tables 1 and 2). These principles reflected an approach to multi-stakeholder governance based on cognitive practices (using visible knowledge claims), guided by the desire to be inclusive of diverse stakeholders through a negotiated and transparent change logic where "mutual respect of values is essential" (Sayer et al, 2013, p. 8351).

[TABLES 1 AND 2 AROUND HERE]

These principles have also been adopted by other analysts who have portrayed the Landscapes Approach as an example of "landscape democracy," which they define as "the operationalization of democratic and good governance principles (such as transparency, accountability, participation,

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legitimacy and coordination) in multi-stakeholder processes at the landscape level" (Minang, Duguma, *et al.,* 2015, p. 389). These objectives also adopt principles such as clearly demarcated ownership of knowledge; respect for local and indigenous people and knowledge; and social equity. Indeed, Landscape Approaches have also been presented as deliberative alternatives to economically rational frameworks such as Reduced Emissions from Deforestation and Forest Degradation (REDD+) (Dymond *et al.*, 2007; Forsyth, 2009; Gebara *et al.*, 2019; Yuliani *et al.*, 2018). They have also been claimed to reliance on "expert planning" and top-down project-oriented actions by using "process-oriented activities" involving local consultation (Sayer & Dudley, 2008, p. 3; Sayer *et al.*, 2013, p. 8352).

Indeed, the authors of the 2013 principles to the Landscapes Approach add: "although no panacea, we see few alternatives that are likely to address landscape challenges more effectively" (Sayer *et al.*, 2013, p. 8349).

3. CRITICISMS AND TRANSFERABILITY OF LANDSCAPE APPROACHES

There are, however, various criticisms in general and under authoritarian regimes. Various scholars have found Landscape Approaches ambiguous, alleging a "plethora of interlinked terminology and reinvention of ideas and practices under multiple guises" (Reed *et al.*, 2015, p. 1), or a "constructive ambiguity" (Freeman *et al.*, 2015, p. 24). Indeed, most forms of environmental governance could be considered Landscape Approaches (Erbaugh & Agrawal, 2017, p. 4453) – although some have argued ambiguity is useful when undertaking "the messy process of managing complex, dynamic systems" (Foster, 2016).

Landscape Approaches also raise challenges in terms of political processes and inclusiveness. The model of deliberation implied in the principles listed in Tables 1 and 2 are effectively ideal-speech conditions, or forms of democratic dialogue in a Habermasian tradition where participants can evaluate each other's assertions within a public sphere free from coercive influences (Fischer, 2015). These conditions are indicated by the principles like including minorities; establishing trusted and

equitable negotiations; or transparent rules and responsibilities for stakeholders. Much social science debate, however, has questioned whether such ideal speech and representation is achievable (Fischer, 2000; Turnhout *et al.*, 2014).

Critics also question whether Landscape Approaches can overturn social inequalities and achieve inclusive multi-stakeholder governance. One assessment of Landscapes Approaches in the Congo Basin concluded that Landscape Approaches replicated pre-existing power relations, and "rather than incorporating local concerns and capabilities into management, local knowledge is discredited and livelihoods are marginalized" (Clay, 2016, p. 130). Other concerns have been expressed about climate-smart landscapes in South America because new no-tilling agriculture might exclude smallholders and empower transnational corporations (Newell & Taylor, 2018).

Landscapes Approach principles also emphasize the cognitive interests of identifiable stakeholders, rather than acknowledging how both knowledge and stakeholders' identities might be defined in non-cognitive terms. For example, the principle of seeking a "common concern entry point" or defining landscapes as "geographic areas or set of areas bound by a common issue" (Torquebiau, 2015, p. 24) might exclude other definitions of problems: a process called "problem closure" (Forsyth, 2005; Hajer, 1995, p. 64).

Landscape Approaches might be considered a form of knowledge co-production because it seeks to generate knowledge by engaging with local stakeholders (Miller & Wyborn, 2018). Yet, various analysts have argued for a more tacit and structural analysis of co-production highlighting how assumptions, values, and imaginaries can influence which stakeholders or evidence are considered relevant (Andersson & Westholm, 2019; Beck & Forsyth, 2020). Tacit factors can reduce the ability of Landscape Approaches to identify multifunctionality, or who gets to define this. Rapid socio-economic transitions can also change the identity of stakeholders and problems quickly (Görg, 2007). Some analyses of Landscape Approaches have acknowledged how different organizational practices can fragment knowledge (Reed *et al.*, 2015, p. 2; Scherr *et al.*, 2013). But these discussions fail to

acknowledge how Landscape Approaches might impose an order on defining both stakeholders and their problems; but also how authoritarian states might seek to use these definitions to maintain a particular social order.

It is therefore important to ask who sets the agendas of Landscape Approaches; who justifies interventions; and who convenes Landscapes Approach processes? Focusing only on one definition of a problem, or allowing one social group to define it, will reinforce political agendas rather than democratize them. Moreover, whoever convenes deliberation can also frame which objectives or stakeholders are considered important. The Landscape Approach risks authorizing a generic model for intervention, thus providing a warrant for outsiders to intervene in politically complex situations (Blaikie & Muldavin, 2004).

Together, these concerns affect debates about transferring Landscape Approaches to diverse political contexts. On one hand, critics have argued that Landscapes Approach principles cannot be considered a "framework" for policy because social-ecological research defines frameworks as a set of variables and how those variables relate to one another (Erbaugh & Agrawal, 2017, p. 4453; Ostrom, 2007). These critics argue instead that the Landscapes Approach principles should be seen as a menu of management alternatives and an ethic of governance, rather than a tested set of casual associations between principles (Erbaugh & Agrawal, 2017).

On the other hand, using the Landscapes Approach principles might also confuse building successful multi-stakeholder governance in new locations, with transferring idealized ideas about how to achieve this outcome. The principles listed in Tables 1 and 2 might indicate a deficit model of governance, which imply that idealized conditions need to be in place before successful multi-stakeholder governance can be achieved (Pfund, 2010, p. 123), or where there are "few alternatives" (Sayer *et al.*, 2013, p. 8352). Critics, however, ask if these ideal-speech conditions might *ever* be achievable, even in advanced democracies (Görg, 2007). Is it therefore reasonable to build multi-stakeholder governance by transferring conditions that might never be met? Indeed, sociologists of science have

asked whether scientific replicability is achieved only by recreating laboratory conditions rather than by achieving desired outcomes in different places (Latour, 1988; Law & Singleton, 2005). It might therefore be more constructive to consider how far Landscape Approaches can help advance inclusive forms of deliberation and multi-stakeholder governance regardless of the principles listed in Tables 1 and 2, rather than relying on, or testing the association of these principles, alone.

4. THE STUDY

(i) Objectives

The study aimed to analyze the Landscapes Approach principles in one location with significant challenges to ideal speech and inclusion. The study adopted a lesson-drawing approach: a method to identify core design principles of public policy, and rethink these in different locations (Anello, 2006; Benson & Lorenzoni, 2014; Rose, 1991, 1993).

The study asked:

- How far have different principles of the Landscapes Approach (as identified in Tables 1 and 2) been applied under authoritarian and rapidly changing conditions?
- What influences the achievement of inclusive, multi-stakeholder governance?
- What lessons can be drawn for making Landscape Approaches more achievable in conditions where its proposed principles are hard to fulfil?

Rather than focus on all of the principles listed in Tables 1 and 2, the study selected three core themes of the Landscapes Approach:

- Multifunctionality: the consideration of diverse definitions of problems and objectives. This theme relates to principles of multifunctionality and common entry points; but also concerns about representing diverse stakeholders and problems.

- Multi-stakeholder engagement: the ability to acknowledge identities and needs of diverse stakeholders. This theme relates to principles of multiple stakeholders, clarification of rights and responsibilities, and stakeholder capacity, especially under conditions of rapid transformation.
- Deliberation: the political processes leading to decisions. This theme relates to principles of continual learning and adaptive management, and negotiated and transparent change logic, but under conditions of authoritarianism and social hierarchies.

The location for the research was Lake Indawgyi in Kachin State in Myanmar (previously Burma). The is Myanmar's largest freshwater lake, which faces various challenges of fishing, agriculture, mining, and logging. The lake has been targeted by Landscapes Approach processes through a UNESCO conservation scheme, later combined with other multi-stakeholder governance initiatives (UNESCO, 2003; MNREC, 2017). The state of Kachin, however, illustrates many challenges to transferring Landscapes Approaches. Since Burma's independence from Britain in 1948, and especially since a military coup in 1962, the country has experienced sporadic civil wars largely driven by the aims of the Burmese Army (or Tatmadaw) to occupy and control ethnic minority borderland areas (Smith, 2007). Since the 2010s, Myanmar attracted foreign investment and took steps towards democracy (Ra et al., 2021, p. 469).

Kachin is Myanmar's most northerly state, and is characterized by highland zones intersected by deep rivers, including Myanmar's most significant river, the Ayeyarwady (Irrawaddy). In 2015 the Union government and 16 ethnic groups agreed a Nationwide Ceasefire Agreement (NCA), but this was signed by only eight groups and did not include Kachin representatives. Violent conflict still occurs sporadically in Kachin, with most of the lowlands and state capital Myitkyina controlled by the Tatmadaw, but other areas under control of the Kachin Independence Organization (KIO) and the Kachin Independence Army (KIA) (Sadan, 2015). Indeed, some zones in Kachin have dynamic and shifting political authority, and many villages have visible military presences from the Tatmadaw, KIA, and allied militias (Dean, 2007; Kiik, 2016).

Lake Indawgyi measures 24 kilometers by 10 kilometers, some 175 kilometers southwest of Myitkyina. The lake and surrounding land was gazetted as a wildlife sanctuary in 1985, and then received ASEAN Heritage Park status in 2003 (MNREC, 2017, p. 1). A conservation project based on ecosystem approaches started in the early 2000s (UNESCO, 2003), and in 2016 was declared a Ramsar Site. Some 93 species of fish and 160 species of birds have been recorded at the lake (Kachin Development Working Group, 2017). Initial regulations focused only upon the lake, but over time various organizations proposed extending the conservation scheme to the villages and basins nearby. It was declared a Biosphere Reserve in 2017, comprising 133,715 hectares including the lake and 13 nearby villages.[1] Now, the management plan encourages multi-stakeholder governance, including land uses in neighboring basins (MNREC, 2017; Momberg, 2017). Indeed, the conservation organization, Fauna & Flora International, has advised authorities to regulate local land uses at some distance from the lake:

> Indawgyi Lake is a wetland surrounded by rice fields and a forested watershed. Unless agriculture and forests are managed sustainably, the lake ecosystem will suffer from run-off from erosion triggered by agricultural encroachment or unsustainable logging in the watershed. If farmers use excessive amounts of fertilisers and pesticides, the lake becomes polluted and the ecosystem could collapse (Momberg, 2017).

It should be noted, though, that this organization has been linked to conflicts with communities elsewhere in Myanmar (Carroll, 2018). Moreover, the original conservation scheme, and its proposed extensions, have all been approved by the Union (Tatmadaw) government. These land-use controls therefore might be considered forms of aiding Union control over certain lands within Kachin, although there are certain villages where there are influences from both the Tatmadaw and KIA (see Section 5). The scheme has also changed over time. In 2016, annual auctions for fishing rights in the northeastern corner of the Lake were cancelled following concerns from conservation organizations,

plus declining productivity and revenue. The focus of the scheme now is to protect the lake's biodiversity and surrounding ecosystem services.

Kachin has already experienced various challenges for Landscape Approaches. In the 2010s, a hydroelectric dam was proposed at the Myitsone confluence north of Myitkyina, which would have had significant downstream impacts on river and sediment flow. This dam was eventually suspended following protests about its proposed use to supply China, as well as local impacts on ecology and heritage (Kiik, 2020). The Indawgyi lake zone was designated during the 1960s as a "brownzone," where control is mixed between KIA and Tatmadaw, sometimes with local militias from Shan Ni (Tai Leng) people. Village administrations report to both the Tatmadaw and its allies, and the KIA, who impose policy directives and informal taxes on activities such as fishing and logging. A further factor is that Myanmar's largest jade mines at Hpakant are in the basin north of Lake Indawgyi. The mines offer employment for local villages, but have also been a site of violent conflict between Tatmadaw and KIA. Since the mid 2010s, the Tatmadaw has monopolized jade production, although both sides compete over jade trade (Global Witness, 2015).[2] The landscape around Indawgyi also has unregulated gold mining and illegal logging.

(ii) Methods

The study was based on fieldwork between 2017 and 2018 in Kachin State as part of a wider research project about land-use and livelihoods changes funded by the CGIAR Research Program on Water, Land and Ecosystems.[3] Household surveys and interviews were conducted to identify the problems and objectives of people living in different villages. Teams of researchers were created from two collaborating non-governmental organizations: the Shalom (Nyein) Foundation of Myitkyina,[4] and Friends of Wildlife based in Yangon.[5] These teams used the languages of Jingphaw (Kachin), Shan and Burmese, and could gain access to some sites that were forbidden to foreigners. The authors accompanied the teams where possible. Survey work included initial interviews with village administrators; and then smaller discussions with representative groups of different land users or traders, including women-specific discussions led by a female researcher. Villages contained different

ethnicities, and so the research did not separate people on ethnic lines, although ethnicity was discussed if informants mentioned it. The research also included interviews of policymakers and participant observation of village discussions, and when the survey team presented its findings to the Kachin parliament in 2018.

In all cases, the research team were attentive to possible risks for respondents under authoritarianism. Researchers avoided asking questions that might be considered critical of authorities (either Kachin or Tatmadaw), although noting comments if made. Answers were anonymized.

The research mainly focused on the three largest villages on the edge of Lake Indawgyi (see Table 3), although some of the interview information referred to other villages. A total of 203 household surveys were completed, and some 15 interviews. Figure 1 shows a map of study locations.

[TABLE 3 AROUND HERE]

[FIGURE 1 AROUND HERE]

5 FINDINGS

(i) Multifunctionality

The objective of multifunctionality is to achieve and reconcile multiple ecosystem and livelihood landscape functions simultaneously. As noted above, however, multi-stakeholder processes might undergo processes of "problem closure," which reduce the diversity of problems addressed, sometimes by restricting what kinds of stakeholders or problems are represented in Landscapes Approach processes. Sayer *et al* (2013, p. 8351) assert that one key principle for a Landscapes Approach is a "common concern entry point," which refers to the identification of a common concern to start negotiations. But, as discussed above, a risk is so-called problem closure, where one particular function takes precedence at the cost to others.

The historic concerns of the Lake Indawgyi Biosphere Reserve have been to maintain the integrity of the wetland habitat for species diversity. In turn, these objectives have inspired concerns about land use/ land cover changes in basins feeding the lake in case they trigger erosion, sedimentation, or pollution from agrochemicals (MNREC, 2017; Momberg, 2017). Yet, focusing on these specific problems might also conflict with other definitions of problems from other stakeholders elsewhere in the Upper Ayeyarwady Basin. Some stakeholders might prioritize commercial crops and plantations that have become more significant under Myanmar's new economic regime. Other farmers and smallholders might prioritize problems such as a shortage of land or livelihoods, which in turn might encourage clearing forest land for agriculture.

The research checked some of the assumptions about the impacts of land use-cover change by using a Geographical Information System (GIS) model,[6] and then interviews and surveys. The GIS model calculated differences between hydrological flows (defined as precipitation minus evapotranspiration) between 2003-14 in the upper Ayeyarwady Basin for forest cover of 80% or more (60% for dry deciduous forest), and degraded forest with between 10-80% canopy (10-60% for dry deciduous forest). This work showed that Kachin State covers about 21% of the total Ayeyarwady basin, but receives around 27% of its rainfall. Moreover, Kachin contributes nearly 47% of water produced by all land classified as forest in the entire basin. These projections support widespread concerns that that forest degradation in Kachin would indeed have significant implications for river flow in the Ayeyarwady Basin and Lake Indawgyi.

These projected relationships, however, do not evaluate how land use-cover change might occur, who benefits, or how different stakeholders experience these changes as problems. For example, forest degradation might be driven by illegal logging, the expansion of commercial agriculture, or possibly displacement of smallholders under new land titling regulations. Indeed, discussions with village heads and environmental managers in the survey indicated that recent changes in government legislation have influenced transitions in land use in the upper Ayeyarwady Basin, and modified the conditions for the Indawgyi governance regime. In 2008, the national constitution declared all land to

be the property of the state. In 2012, the Farmland Law and the Vacant, Fallow and Virgin Land Management Law required all claims on land to be registered and certified. These changes were designed ostensibly to make land markets more efficient. But they have also been criticized for ignoring prior land claims, thereby encouraging dispossession and so-called "land grabs", including by corporations installing new plantations on land previous used by local smallholders (Human Rights Watch, 2018, p. 3; Ra *et al*, 2021; Springate-Baginski & Kamoon, 2021). Indeed, the Farmland Investigation Commission was created to help facilitate the transition to new land registration, and received some 20,000 complaints about land confiscation during its existence between 2012-16 (Human Rights Watch, 2018, p. 2). Complaints in Kachin alleged that new registration fees and procedures encouraged corruption by making state officials or village heads gatekeepers for registration (Spectrum, 2015). These challenges have especially impacted on vulnerable groups such as widows seeking to access land registered in their husband's name (EMReF & Spectrum, 2019; Ferguson, 2014).

The new certification also impacts on the adoption and legality of shifting cultivation (known in Myanmar as taungya or *Shwe Pyaung taung ya*), which typically comprises unirrigated and opportunistic agriculture on sloping land beside quality farmland (Tint *et al.*, 2011). Historically, taungya was the main source of agriculture to poorer smallholders who might not have access to quality farmland, or was used by richer households to supplement existing agricultural incomes. Critics, however, have alleged that the new laws and commercialization have undermined customary land tenure systems and food security (Debarry, 2017; Kramer, 2021; Oberndorf, 2012, p. 22), or helped the Union government control border areas (Woods, 2011).

A successful Landscapes Approach would acknowledge and incorporate these concerns. But the principle of seeking "a common concern entry point" might exclude these perspectives if this phrase is used to frame discussions around one specific problem such as water flow to the Lake, or if this (supposedly) common problem is used to imply a solution that might seek to close down multifunctional options for larger or smaller-holder agricultural expansion in the upper Basin.

According to Sayer *et al* (2013, p. 8351) the principle of a common concern entry point is meant to imply a feasible starting point for negotiations between stakeholders, and so in principle this common concern need not be exclusionary. But the ability to achieve multifunctionality within discussions also needs to acknowledge how different stakeholders experience problems, and how these might change under socio-economic transformation. The next section considers these factors.

(ii) Multi-stakeholder engagement

Landscapes Approach principles imply making an inclusive space for stakeholders, often assuming they have different and predictable interests. For example, the Lake Indawgyi Biosphere Reserve lists stakeholders as national ministries, the local government in Kachin (including the forest, fisheries, and tourism departments), local groups (such as community organizations, villager elders, and fishing groups), as well as the policy and army) (MNREC, 2017, pp. 56-58).

But are stakeholders and their interests so visible and stable? A challenge of rapid socio-economic transformation, however, is that both actors and interests change as new economic opportunities emerge, and through processes such as migration and the emergence of new elites. Indeed, Sayer et al (2013, p. 8351) note "stakeholders and their concerns are not static but will change."

The research around Lake Indawgyi paid particular attention to how economic transformation changed people's livelihood opportunities, and how far this also affected their status as separate or coherent stakeholders. In particular this research focused on smallholders, fishing communities, and people engaged in mining for jade and gold. Table 4 shows details of livelihoods observed through village surveys according to different land holdings. Figure 2 gives more information about relationships between income and types of landholding. These figures give indications for how diverse land users might constitute different groups of stakeholders, plus an indication of how identities and interests are changing under transformation.

[TABLE 4 AROUND HERE]

[FIGURE 2 AROUND HERE]

The research showed that some transitions might be occurring in how economic transformation affects the use of taungya land. Figure 2A shows that there is a generally positive correlation between the amount of quality farmland owned, and the total cash incomes of households. This finding is not surprising. But the information in Figure 2B suggests that there is also a positive relationship between large owners of quality farmland, and those who also undertake taungya. Interviews with farmers in Nant Moun Kan village in particular showed that various households with farmland were undertaking additional opportunistic agriculture on unregistered land, often for commercial crops such as maize. Indeed, some of these households claimed to be cultivating as much as 75 hectares of taungya land (Figure 2B). Yet, the research showed that smaller holders of farmland did not engage in this kind of large-scale taungya, and instead sought to supplement incomes by working in mining. Indeed, Table 4 shows that the average contribution of mining to household incomes for people who relied only on taungya was 76%, compared to just 5% for households that already had quality farmland. Evidence therefore suggests that the main drivers of expansion of taungya (rainfed hill) agriculture are the larger landholders, while smallholders (of less than 20 hectares) generally look to non-agricultural income, and especially mining, to supplement incomes. Large farmers may be generating increased incomes, and asserting informal claims to land, which might lead to formal tenure to in due course.

Evidence also suggested that the fishing communities near Lake Indawgyi have changed rapidly. Interviews in Nyaung Bin village explained that fishing had expanded rapidly since 2010 through in-migration of some 84 specialist fishing households from Sagaing region, west of Kachin, who had migrated to Kachin after the creation of the Thapanzeik Dam (2001) and a state-licensed fishing monopoly. Since 2015, further households had arrived from Inle Lake in Shan State.

These new fishing communities were allowed to stay in Lake Indawgyi, but had generally not integrated with older settlers. Moreover, fishing activities were often divided on gender between men

who caught fish, and women who prepared and sold fish. Table 4 also shows that (lake) fishing contributed most to households that were either dependent on taungya alone, or were landless (an average of 83% and 75% respectively). Overall, evidence therefore suggests that lake fishing is done commercially by smaller, specialized communities, while the majority of villagers use agriculture, or supplement small agricultural incomes with mining. Indeed, in terms of cash income, evidence suggests that fishing is not widely practiced by the very poorest households. Villagers explained that a small number of older settlers fished in the streams (as opposed to the lake) but this activity did not count as a specialist livelihood. The termination of auctions for fishing rights on Lake Indawgyi in 2016 did not affect any of these local settlers, as their level of fishing was not included.

The engagement in mining, however, showed the greatest variety. The most common activity related to mining was laboring in the Hpakant mines, where many households had at least one family member working there seasonally. Less frequently, mining could also include panning or digging for gold in sediments beside larger rivers such as the Ayeyarwady. Since the 2000s, gold panning has increasingly been replaced in the Indawgyi region by hydraulic mining, where miners use a high-pressure water hose to loosen clay deposits in floodplains. This activity has eroded or flooded farm and grazing land, and caused siltation of river channels. In 2014, parts of Nyaung Bin were flooded for three days due to hydraulic mining. Mercury is also used to separate gold deposits, which is feared to contaminate soil, water and fish and put miners at risk.

Some villagers also engaged in illegal logging. Research on this topic was difficult because it was a "shadow economy" activity and socially stigmatized. In one village, farmers explained that village heads operated an illegal sawmill logging with the tacit acceptance of authorities. Evidence suggested that village heads tended to be those most involved.

Villagers explained that mining for gold or jade provided opportunities for paid labor when people (mostly men) were not farming. Yet the individual rewards from mining varied greatly from laborers paid by the day; entrepreneurs who took risks organizing teams to undertake digging (and who could

be bankrupted if they were unsuccessful); and jade traders, including some of the wealthiest people interviewed. Indeed, interviews showed that jade traders had become dominated by men who had previously been Tatmadaw soldiers who said they returned to the region after leaving the army, and who could benefit from their knowledge of the area and contacts with the military. It is possible, of course that these men still gathered intelligence for the army. These people were often landless because they specialized in trade. One individual near Lake Indawgyi revealed he used his cash income to hire laborers to undertake taungya agriculture in the hills around the lake, starting in 2015. Some informants openly expressed their resentment of the influence of the Tatmadaw, and the difficulty for local Kachin people to prosper.

The engagement with multiple stakeholders in the Lake Indawgyi region, therefore, faces the challenge that groups such as farmers, fishers, and people engaged in mining are changing because of underlying socio-economic change, and because these sectors interconnect. These factors influence the ability to predict known interests and identities from these groups. Moreover, some of the factors driving the emergence of different stakeholders can also include politically charged social changes such as the emergence of ostensibly ex-Tatmadaw ethnically Bamar soldiers as a new business elite, or the arrival of migrants within older social structures.

(iii) Processes of deliberation

As discussed, Landscapes Approach principles call for transparent and inclusive deliberation, acknowledging that stakeholders have different values, beliefs, and objectives (Sayer *et al.* 2013, p. 3351). These principles usually imply facilitating a process of trusted discussion that seeks to include different parties. Critics, however, have suggested that this cognitive form of deliberation might pay insufficient attention to political structures and inequalities that influence who participates in deliberation or how deliberation is framed (Clay, 2016; Forsyth, 2005; Turnhout *et al.*, 2014).

Clearly, these objectives have challenges in a location such as Kachin, where there is a history of violent conflict, and ongoing tensions between armed groups. The Lake Indawgyi Biosphere Reserve

has strengthened multi-stakeholder governance through educating citizens about illegal logging (MNREC, 2017, pp. 69-79). The research interviewed village heads, policymakers, and other key informants in order to gain insights about how political structures might influence deliberation inside and outside formal arenas. It also discussed these matters with policymakers, and undertook participant observation, at a meeting with members of the Kachin Parliament.

One persistent theme discussed by villagers and policymakers was contested land allocations on land previously used for taungya. Many of these cases arose where villagers (sometimes displaced due to conflict) had conducted agriculture without formal rights on land officially classified as Reserved Forest, sometimes with the tacit permission of the local Burmese state Forest Department. One example from Lamyang village east of Myitkyina (see Figure 1) occurred when the leader of the largest Union government-affiliated militia in Kachin (the Kachin New Democratic Army– Kachin[7]) was given permission to use village "Community Forest" and cultivation land in 2009 by the Burmese Army Northern Command but without consulting local villagers (apparently as a reward). In 2011, the militia head leased the land to a Chinese company to grow a 200 hectare banana plantation. Villagers complained that the plantation had been allocated on their own cultivation land, their irrigation water had been diverted, and that the plantation had encouraged low-cost laborers (imported from Rakhine State, in western Myanmar) to cut trees in the community forest. A further example was at the site of a village relocated to make way for the proposed Myitsone dam at Tang Hpre, north of Myitkyina. Here, villagers were resettled in 2011, but returned to conduct agriculture. In 2016, this land was allocated to a 300 hectare rubber plantation, and in 2018, another company – allegedly linked to the state Union Solidarity and Development Party – applied to create an ecotourism park at Tang Hpre. These examples illustrate the non-transparent and politically connected manner in which land allocations occur, and which are not challengeable in formal discussions.

The example of the banana plantation was discussed with members of the Kachin Parliament at a meeting in 2018. Parliamentarians showed concern, partly because they feared Chinese involvement in Kachin. Detailed debate, however, was resisted by the parliament's military representatives, who

claimed the topic was not appropriate for that arena. Indeed, one military parliamentary member (in military uniform) stood up during the discussion, pointed at the Kachin member of the research team presenting, and shouted "Who are you? Where do you live?!" with obvious impacts on the discussion. The Kachin parliament has 40 elected members and 13 appointed military members, a similar proportion to Myanmar's national government (Nixon, 2013, p. 92).

The research also gathered information about influences at the village level. The Kachin Independence Organization (KIO) also asserts state-like authorities over certain regions of Kachin, and indeed has greater social legitimacy among many Kachin people. At the time of research, the KIO were most influential in zones to the north and east of Lake Indawgyi, rather than around the lake itself. The research team interviewed a three-person KIO Liaison committee in their public office in Myitkyina. They explained that environmental governance must take second place to the armed struggle for just peace, based on federal decentralization of power. They expressed the desire to reduce environmental damage, especially by the Tatmadaw and their allies, but it was difficult to achieve more. The co-existence of the Tatmadaw and KIO as political authorities how often placed village heads (usual headmen) in difficult positions of having to maintain cordial relations with each. Doing this effectively, however, can enable heads to take advantage of commercial opportunities such as illegal logging, mining and land use. In one village that had experienced violent conflict between the Kachin Independence Army and the Tatmadaw in 2011, the headman operated an illegal sawmill. He explained he "had to pay bribes to everyone in uniform." These circumstances, of course, are not deliberation, but they show the conflicting role of political authorities as facilitators of Landscapes Approach processes, and as interested parties in conflict.

The current Landscapes Approach intervention around Lake Indawgyi and surrounding areas also seem unlikely to impact on the National Ceasefire Agreement (NCA), and vice versa. The initiatives have been sanctioned by Union (Tatmadaw) authorities, but they focus on ecosystem services rather than political loyalties. The KIO did not sign the NCA amid concerns that it did not offer enough in terms of federal decentralization (Kiik, 2016; Kumbun, 2021). At the time of writing, and especially

after the 2021 coup, it seems unlikely that the Landscapes Approach around Lake Indawgyi will result in shared governance between the Union and KIO.

The point of these examples is to illustrate the barriers that a Landscapes Approach has when it seeks to establish trusted, inclusive, and transparent governance under authoritarian conditions, such as in Kachin. Yet, it also raises the questions of whether the principles associated with the Landscapes Approach (Tables 1 and 2) are actually achievable in this kind of location; and whether they can achieve their intended outcomes. Sayer *et al.* (2013, p. 8352) note "the principles of the landscape approach provide a framework by which outcomes negotiated among stakeholders can be reached most effectively." But it is important to ask whether the principles outlined in association with Landscape Approaches are actually feasible, and whether it is reasonable to use these principles as a basis for empirical tests of associations (Erbaugh & Agrawal, 2017). In effect, these principles constitute a deficit model – i.e. of forms of governance that need to be installed before Landscapes Approach processes can occur – rather than focusing on the political structures that prevent this idealized form of deliberation.

Instead, it might be more effective, under conditions of authoritarianism and rapid socio-economic transformation, to acknowledge the challenges to the Landscapes Approach principles, and to seek to maximize success despite their absence. A form of the Landscapes Approach is occurring in the Lake Indawgyi region, because it is a coordinated attempt to engage with multi-stakeholder governance at different spatial scales. The challenge is to ask how can this governance be made more coherent, inclusive and effective, despite the complex and contested field realities, rather than to assume this can only occur by applying principles that might not be achievable.

6. CONCLUSION: IS THE LANDSCAPES APPROACH POSSIBLE UNDER AUTHORITARIANISM?

This paper has discussed the challenges of building Landscapes Approach processes in authoritarian regimes, also under rapid socio-economic change. It has especially noted how much debate about Landscape Approaches have proposed general principles (IUCN, 2008; Sayer *et al.*, 2013), about which their proponents have claimed "we see few alternatives that are likely to address landscape challenges more effectively than an approach circumscribed by the[se] principles" (Sayer *et al.*, 2013, pp. 8352, 8349).

The paper's key argument is that building Landscape Approaches in authoritarian regimes needs to rely upon improving multi-stakeholder governance in situ rather than waiting for these principles to become operational. The principles of Landscape Approaches listed in Tables 1 and 2 reflect models of politics, knowledge, and transferability based upon ideal speech conditions, transparency, trust, and cognitive engagement that might be (at best) optimistic or (at worst) overly simplifying of how deliberation, knowledge production, and political change actually occur. Some critics have already proposed that the Landscapes Approach principles are more of a "menu" and "ethic" for guiding environmental management interventions, and have instead urged attention to hypothesizing and testing how the different principles relate to one another (Erbaugh & Agrawal, 2017, p. 4453). In this current paper, however, we argue that these principles – while laudable objectives – are too idealized and predetermined in terms of politics, knowledge, and participation to be the basis of either transferring or testing Landscape Approaches under authoritarianism. Indeed, waiting for these principles to be achieved can steps towards multi-stakeholder governance in the short term.

Instead, this paper has argued for greater attention to local social structures as drivers of both political inequality and environmental change; and as barriers to deliberative multi-scale, multifunctional governance. Although this paper presents just one case study, it supports other analysts who have highlighted the structural drivers of environmental change and social inequality within Landscape Approaches (Clay, 2016; Newell & Taylor, 2018). In addition, this research in Myanmar has shown that multi-stakeholder governance is difficult when the composition and identity of stakeholders and their concerns are changing rapidly under conditions of commercialization and ethnic tensions

between local Kachin farmers, Bamar and military traders, and specialist fishing communities and laborers who have migrated from other states of Myanmar. Participation within Landscapes Approach processes are dominated by military influence. Processes of "problem closure" make public deliberation focus upon specific concerns shared by more powerful stakeholders, rather than also address the needs of farmers whose access to land is shrinking because of new land titling and commercialization. In other words, the hope for cognitive, trusted, and transparent politics do not acknowledge the dynamic and structural conditions under which socio-economic change occurs; how stakeholders define problems; nor how inequality persists.

Together, these observations imply there is a need to see multi-stakeholder engagement as a process deeply influenced by processes of socio-economic transformation, rather than as a disconnected means to govern and control transformation (Scoones *et al.*, 2020). Successful multi-stakeholder governance through the Landscape Approach should not focus overly on transferring or testing optimistic principles, but on seeking to understand and address barriers to progress more deeply, and in reference to local contexts.

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[1] The midpoint of the reserve is 25°10'40"N - 96°21'55"E. http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves/asia-and-the-pacific/myanmar/indawgyi/

[2] Myanmar's national jade production is difficult to estimate. In 2015, estimates of total sales varied between $31Bn (Global Witness, 2015) and $1.5bn (MEITI, 2015).

[3] Project entitled, "Working together for a better Kachin landscape," https://wle.cgiar.org/ Accessed 8th July 2021.

[4] https://www.nyeinfoundation.org/ Accessed 8th July 2021.

[5] https://www.fowmyanmar.org/home Accessed 8th July 2021.

[6] GIS work was performed by Ben Roberts-Pierel, (Research associate, School of International Development, University of East Anglia) under the leadership of Oliver Springate-Baginski, building on work and methods conducted by Wim Bastiaanssen et. al. (UNESCO-IHE, Delft University of Technology).

[7] The leader was Zahkung Ting Ying.

Table 1: The principles of Landscape Approaches as proposed by IUCN (2008)

Lally Principles (IUCN 2008) (abbreviated by the authors)	Sangha Guidelines (IUCN 2008)
1. Use caution on entry. (Do not arrive with solutions, seek to include local views). 2. Invest in skilled facilitation. (Inclusive, transparent and equitable). 3. Share ownership of the process. (Ideally with local stakeholders and institutions). 4. Understand institutional context. (i.e. formal and informal). 5. Focus on landscape functions. (i.e. flows of goods and services). 6. Search for synergies. (Win-win situations are rare – aim to win more and lose less). 7. Recognize different scales. (Should be determined by landscape function or concern). 8. Begin small and expand. (But end up at landscape scale). 9. Understand landscape dynamics. (Use participatory plus digital models etc.) 10. Explore scenarios fully. (Reach agreement among stakeholders). 11. Select aims and indicators carefully. (Focus on changes considered by stakeholders). 12. Choose comprehensive indicator sets. (inc. biodiversity, agriculture, Livelihoods; etc.). 13. Make trade-offs explicit. (Negotiations need transparent outcomes and indicators). 14. Embed tracking in long-term management. (Indicators sets should be revisited). 15. Prevent high-tech tools from driving the process. (e.g. remote sensing and GIS). 16. Learn from failures. (Make these explicit). 17. Embrace change. (Negotiation processes must be re-visited on an ongoing basis). 18: Identify stakeholders. (Transparent decisions are needed). 19: Be transparent about the opportunities. (Stakeholders must know limits).	Principle 1: Appropriate legal and policy frameworks must be in place to enable landscape-scale initiatives Principle 2: Stakeholder platforms are needed to enable governmental, nongovernmental and civil society actors to negotiate and take decisions at a landscape scale. Principle 3: The interests of all actors, especially the inhabitants of the landscape must be assured Principle 4: The capacity of institutions operating within the landscape will need to be strengthened Principle 5: Environmental, social, technological and economic changes will present new opportunities and challenges for landscapes

Table 2: Ten principles of Landscape Approaches (Sayer et al, 2013), and likely challenges

Proposed principles	Likely challenges
1. Continual learning and adaptive management	a. Power inequalities between different stakeholders, especially under conditions of authoritarianism
2. Common concern entry point	b. Effectiveness of participatory approaches under conditions of power imbalances
3. Multiple Scales	
4. Multifunctionality	c. Attention to knowledge politics: e.g. predefined framings of "common" entry points, and ability to redefine problems more inclusively
5. Multiple Stakeholders	
6. Negotiated and transparent change logic	d. Trust and goodwill: not always achievable under conditions of long-term conflict or authoritarianism
7. Clarification of rights and responsibilities	
8. Participatory and user-friendly monitoring	e. Property rights are contested, and customary rights not always recognized
9. System-wide resilience	f. Intervention of international actors (such as conservation NGOs) can influence local governments more effectively than local land users
10. Strengthened stakeholder capacity	

Table 3: Study zones and villages
Source: fieldwork, 2017-18, locations and altitudes checked with Google Earth.

Village:	Nyaung Bin	Ma Mon Kine	Nant Mout Kan
Location	25°15'45"N 96°21'06"E	25°03'41"N 96°17'10"E	25°08'16"N 96°22'52"E
Altitude	178 meters	196 meters	182 meters
Established	1894	1891	1934
Population (2016)	2,616	2,293	2,249
no. of households	572	382	343
Average household size	6.8	6.1	6.1
Ethnic groups (in order of size)	Shan Ni, Jingphaw, Bamar	Shan Ni, Jingphaw	Shan Ni, Jingphaw, Bamar
N sample	79	60	64
Average total income (m Ky)	4.95	7.84	10.76
Average farm income (m Ky)	1.55	4.29	8.53
Average non-ag'l income (m Ky)	3.39	3.52	2.21
Average quality farmland owned (ha)	23.6	30.1	70.8
% of sample with quality farm land	35.4	40.0	75.0
Average taungya owned (ha)	7.7	30.6	0
% of sample with taungya	32.9	38.3	0
% of households with land certificate	55	30	71.7
Average months food secure (out of 12)	12	11	11

Table 4: Livelihoods and landholdings in Indawgyi region (three villages pooled)
Source: fieldwork in Kachin, 2017-18

	With Farmland	With Taungya only	Landless
N of households	100	32	71
% of total households	49.3	15.7	35
Average size of households	6.7	5.9	5.7
Average total landholding (ha)	55.2	8.4	–
Average size of farmland (ha)	47.8	–	–
Average size of taungya (ha)	25.4	8.4	–
% of fishers	1.5	6.1	5.4
% of miners	3.5	12.1	3
Average cash income (mKy)	10.3	5.3	4.9
Average fishing contribution (%)	1	83.2	75.4
Average mining contribution (%)	4.8	76.3	95.5
Average food security (months)	11.7	11.8	10.9

Source: fieldwork, 2017-18