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Rattan and Bamboo
Entrepreneurs Association

A Political Economy Analysis of the Myanmar Bamboo Sector

December 2015

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Acronyms and Abbreviations

AA	Arakan Army
ABSDF	All Burma Students Democratic Front
BGF	Border Guard Force
BIF	Business Innovation Facility
CBFM	Community Based Forestry Management
CBO	Community Based Organisation
CCVFV	Central Committee for the Management of Vacant, Fallow and Virgin Lands
CF	Community Forestry
CFC	Community Forestry Certificate
CFE	Community Forestry Enterprise
CFI	Community Forestry Instruction
CS	Conflict Sensitivity
DFID	Department for International Development
DICA	Directorate of Investment and Company Administration
DNH	Do No Harm
DOC	Drivers of Change
EAG	Ethnic Armed Group
EAO	Ethnic Armed Organisation
ESIA	Environmental and Social Impact Assessment
FAB	Farmland Administration Bureau
FAO	Food and Agriculture Organisation
FESR	Framework for Economic and Social Reforms
FI Law	Foreign Investment Law
FSWG	Food Security Working Group
FUG	Forest User Group
GAD	General Administration Department
GDP	Gross Domestic Product
ICG	International Crisis Group
INBAR	International Network for Bamboo and Rattan
IRD	Internal Revenue Department
ITTO	International Tropical Timber organisation
KII	Key Informant Interview
KIO	Kachin Independence Organisation
KNPP	Karenni National Progressive Party

KNU	Karen National Union
LCG	Land Core Group
LIFT	Livelihoods and Food Security Trust Fund
MRBEA	Myanmar Rattan and Bamboo Entrepreneurs Association
MOAI	Ministry of Agriculture and Irrigation
MOECAF	Ministry of Environmental Conservation and Forestry
MSS	Myanmar Selection System
MTE	Myanmar Timber Enterprise
NCA	National Ceasefire Agreement
NLD	National League of Democracy
NLUP	National Land Use Policy
NTFP	Non-Timber Forest Product
PEA	Political Economy Analysis
PFE	Permanent Forest Estate
PPF	Protected Public Forest
RECOFTC	Regional Community Forestry Training Centre
SAA	Self-Administered Area
SFM	Sustainable Forest Management
SIDA	Swedish International Development Authority
SLORC	State Law and Order Restoration Council
SLRD	Settlement and Land Records Department (under MOAI)
SME	Small and Medium Enterprise
SSA	Shan State Army
TNLA	Ta'ang National Liberation Army
UMFCCI	Union of Myanmar Federation of Chambers of Commerce and Industry
UNEP	United Nations Environment Programme
USDP	Union Solidarity and Development Party
VFV Law	Vacant, Fallow, Virgin Lands Management Law
WB	World Bank

1. Executive summary

1.1. Summary of findings

This Political Economy Analysis (PEA) aims to provide an understanding and analysis of political and economic constraints and opportunities for change, leading to recommendations for operational delivery objectives as part of BIF's bamboo market strategy. It provides a substantive, broad overview of the bamboo sector including:

- Mapping key stakeholders (including roles, responsibilities, interests and incentives);
- Identifying relevant aspects of legislation and policy;
- Assessing the informal 'rules of the game'; and
- Considering conflict sensitivity risks.

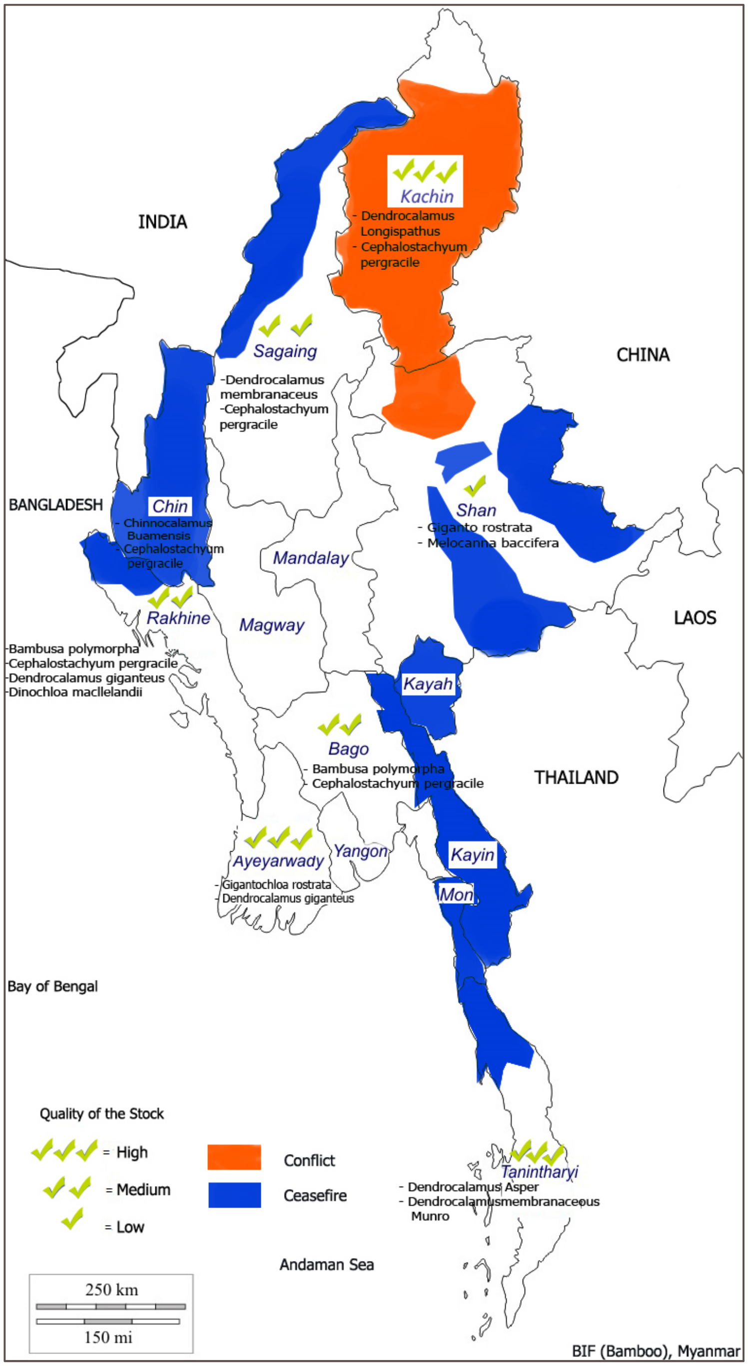
As a result of the unusual diversity of the political environment, and the fact that specific sites have not been identified, this PEA is necessarily 'broad-brush', raising issues that may or may not be relevant to specific locations. As a preliminary foundation it will need to be supplemented by further detailed work in areas chosen for piloting support initiatives. Governance structures vary significantly and in areas with dual administration[1] there are entirely different institutions under Ethnic Armed Organisations (EAOs).

To date, the bamboo sector has been undervalued as a potential sector, and there appears to be little detailed knowledge on the status of the bamboo resource base. However, what can be seen is that the political economy of bamboo is heavily defined by location in Myanmar. Regional and local variations in the political and economic landscape - particularly in terms of key stakeholders - are significant, and shape both the enabling environment and potential strategic and pragmatic business options. Mapping bamboo reserves against the political landscape shows that some bamboo reserves are found in contested areas, or even areas of active conflict. In addition to dealing with different stakeholders, there are major implications associated with location, including: the costs of doing business; proximity to regional markets; and social and cultural dynamics such as different production systems and their associated land management and governance systems. The species of bamboo and their distribution are also key drivers of quality and usage within the different value chains.

Bamboo tends to be located in hilly areas, with particular concentrations in Rakhine, Kachin, Bago and Tanintharyi (although some reserves are also found in Ayeyarwaddy, which is a flat region). Map 1 below provides an illustrative overview of key bamboo reserves in Myanmar, categorised by quality, alongside areas of active conflict or under ceasefire agreements (as of December 2015).

[1] E.g. in Karen State where around 50% of territory is administered by non-State actors

Map 1: Illustrative map showing location of key bamboo reserves (categorised by quality[2]), alongside areas of active conflict and those under ceasefire agreements as of December 2015



[2] A simple grading system was used as a broad indicator to capture the basic differences in quality of reserves, according to best available knowledge from formal sources and stakeholder interviews. An illustrative overview is all that was possible as official data on harvesting and forestry figures are of dubious quality according to stakeholders - not least because some of these areas are not under government control, but also because so little is known of the details of informal exports across borders into Thailand and China

The majority of export bamboo business is mid-level - typified by those involved in the Rattan and Bamboo Entrepreneurs Association - although respondents also noted informally that there is a significant export market of bamboo shoots to both Thailand and China.

In the domestic market, there is a sizeable trade in bamboo poles for construction in the cities (informal settlements as well as scaffolding), fed by a demand from construction companies and contractors. Other aspects of the market are served at the livelihood and lower community level of the different value chains. At the national and subnational (down to township) level, the main institution with responsibilities over bamboo is the Forestry Department, under the Ministry of Environmental Conservation and Forestry (MOECAF). In addition, other government institutions intersect with the bamboo sector and influence the costs of doing business, including the Customs Department, the Internal Revenue Department and Department of Transport.

The key resource underpinning the bamboo sector is land - access to which is often a source of conflict and grievance in Myanmar. While some categories are directly managed by the Forestry Department, others lie under the State/Region Minister of Agriculture and Irrigation. There are other areas of overlap and contestation between different ministries and tiers of government that create some confusion, tensions and issues that may impact, to some extent, on the bamboo sector as it develops.

The national policy environment is changing rapidly and positively as old policy and legislation is revised or updated. There are a large number of laws and policies governing the forestry and land sectors that have implications for the bamboo sector, particularly surrounding recognition of land rights, ownership and land use. These sit alongside customary tenure systems. However, few policies specifically identify bamboo, or guide its development, and this presents an opportunity to inform and develop policy in conjunction with like-minded stakeholders.

The enabling environment for the informal ‘rules of the game’ is also evolving, with an increasingly active and capable civil society, increasing scrutiny from the media, and a reducing fear of the consequences of criticism. As a result, accountability and transparency is increasing throughout most sectors, and time will tell whether the recent elections accelerate this process. In the past, informal power-brokers at the higher levels have acted with impunity. Despite positive recent changes, the system remains highly hierarchical with centralised systems of governance both within Union government institutions and parallel administrations overseen by EAOs. These stakeholders have varying interests, policies and objectives concerning resource extraction, agribusiness and poverty alleviation. While there were those who felt that the so-called ‘cronies’ were increasingly looking to diversify their economic portfolios, others felt that the profit margins and degree of work necessary to enter the bamboo sector would not make it attractive to this group. On a positive note, while overt ‘land-grabbing’ is still an issue in conflict-affected areas, overall it appears to be on the decline.

At the township level, where relationships and patronage patterns are still apparent, informal governance and the ‘rules of the game’ have major impacts on the bamboo sector. The economic dynamics of the bamboo sector at this level and the full costs of doing business are opaque and lack accountability. This situation drives poor management practices and potentially undermines the viability of bamboo development in some areas. Overall, the combination of the formal and informal policy and institutional landscape creates opposing ‘push and pull factors’ that may ultimately contribute positively if carefully managed.

At the macro-level, there is little danger that increasing bamboo activity with a focus on a small-scale managed or natural supply (while more sustainable supply chains are being established) will negatively contribute to structural issues, such as perceptions of inequity or higher-level conflict. However, small plantations and Community Forestry (CF) models do have the potential to cause conflicts at the community level between communities around rights to harvest, and allegations regarding illicit cutting. More broadly, the approach taken at these early stages, even at this smaller scale, may influence long-term perceptions of stakeholders and harm may not be manifested in shorter time horizons.

Large-scale agribusiness-type developments involving large plantations have a much higher risk of ‘doing harm’, creating or contributing to conflict dynamics. Activity near to active conflict-affected areas will need to be particularly carefully considered, with BIF advised to undertake a conflict and risk assessment before supporting any potential activity in this type of context.

Table 1 outlines the key findings from the PEA associated with each of the assignment objectives. These findings have informed strategic recommendations for BIF to consider in supporting the development of the bamboo sector into the future.

Table 1: Summary of PEA objectives and key findings

PEA Objectives	Key Findings
Understand the dynamics and incentives of the government, institutions, companies, associations and other market players (the 'drivers of change') which will influence the emergence of the bamboo market	*Potential positive drivers of change* • Government targets for areas of forest under Community Based Forestry Management (CBFM) are high, providing opportunities for pro-poor interventions and positive government support • Possibility for increased space for pro-bamboo policy development with new NLD government coming into power • EAOs open to development may be interested in finding opportunities for pro-poor growth in the bamboo sector • There are few actors in the industrial arena in the bamboo sector at present (although there are a large number in the trading space) creating opportunities for establishing good practice and systemic change • There appears to be a low risk of 'crony' involvement in the industry at this stage *Potential negative drivers of change* • There may be increased pressure on States and Regions to raise revenue from bamboo in the future, leading to unsustainable development, and pressures on a new system that dis-incentivise participation and investment and endanger economic viability
Explore how the interests and incentives of key stakeholders can be combined to create 'levers of change'.	• No resistance to positive change apparent at this stage – all stakeholders keen to create new opportunities • NGOs and CSOs in the forestry sector are interested in supporting sustainable development of the bamboo sector, which provides the opportunity to collaborate and complement established approaches • There is a need for a specific pro-bamboo policy development and research agenda
Understand who are the main 'winners' and 'losers' in this market, and in particular how the poor can benefit from interventions supporting companies engaged in producing higher value-added bamboo-based products	• No potential significant losers at this stage of the development, but stakeholders at the bottom of bamboo value chains have small margins and are vulnerable to changes in the domestic market and to natural shocks • The creation of winners or losers will depend on the model of bamboo development that is chosen (see Section 7 on Conflict Sensitivity). For instance: o In large-scale plantation models there are risks of displacement of people from their land or increased competition over land use or ownership o In small plantation models (e.g. CBFM) there is a lower chance of creating losers if land is not contested, is within existing Forest Department managed lands, and products are used in the high value export market model. Job creation should be in addition to rather than at the expense of existing livelihoods and production systems at the community level. But increase in local community conflict or exclusion is possible if these are badly managed.
Understand whether access to land for growing bamboo is an issue that can create losers amongst poor people	• It is important to note that the land rights system is still confusing and able to be exploited by powerful stakeholders and commercial interests often override the land interests of the poorest • At this early stage of bamboo sector development, land is a low risk factor - assuming that small plantation models are developed and subject to the type of land allocated. There are large areas of deforested land under the Forestry Department management that are available, although in some locations there may be issues with demarcation of government versus community land. There may also be farmers on some of these areas that are perceived to be 'empty' and so caution is needed • Depending on the location there are those who may consider some areas 'community land' and owned by them. In other areas, the land may be recognised as under Forestry Department control and able to be farmed temporarily with permission while not being used for other purposes

Examine who controls access to, and economic use of, natural bamboo that is owned by a community, where individual ownership is not clear or transparent. In cases where economic benefits of the bamboo are not shared equitably with poor people, how could a BIF intervention support or harm the interests of poor people	• Patterns of land ownership vary dependent on the location of the bamboo in Myanmar, and are defined by customary governance systems. Therefore it will be difficult to find a one-size-fits-all model of intervention in this respect • In some areas, there may be village leaders, a committee or an individual in charge of bamboo stocks while in others it may be a large 'traditional' landlord (e.g. parts of Chin State) • In some areas (for instance some parts of Karen), natural resource ownership is tied up with endemic armed conflict, e.g. EAOs and individual commanders taking the opportunity to allocate bamboo access for exploitation and exercising rent-seeking behaviours with little thought to the interests of the communities they claim to represent

1.2. Strategic recommendations for BIF

The summary of findings found in the table above lead to a series of strategic recommendations for BIF to consider as it takes forward the development of the bamboo sector in Myanmar. These are discussed in more detail in Section 8, but can be summarised as follows:

1. Consider supporting bamboo development projects in two different political economies, underpinned by location specific PEA analyses to design context-appropriate support for partners;

2. Look for opportunities when supporting new ventures to undertake a formal inventory of bamboo reserves in that area;

3. Consider supporting the development of a mixed-model small plantation and Community Forestry Enterprise bamboo production system;

4. Consider developing a ‘Stakeholder Partnership Strategy’ that identifies strategic partners to support sustainable, pro-poor growth in the bamboo sector. This could potentially lead to establishing a multi-stakeholder ‘Bamboo Forum’ that brings together interested parties across sectors (i.e. government, civil society and private sector) to share experience and develop collaborative initiatives;

5. In collaboration with other key stakeholders, identify appropriate changes to policy and legislation that would encourage and support bamboo development;

6. Consider the development of a dedicated Research & Learning Agenda, with related funding, focused on connections between bamboo and pro-poor, sustainable economic growth;

7. Consider the development of a component that embeds accountability and transparency in the sector – a ‘Bamboo Transparency Initiative’ to influence the current ‘rules of the game’; and

8. Develop a series of best practice conflict sensitive approaches and tools adapted to the needs of the bamboo business sector, for use by BIF and its partners.

2. Background and methodology

2.1. Objectives of the PEA

This Political Economy Analysis (PEA) is a follow-on to the high-level market assessment conducted by the BIF team in Quarter 2, 2015. The initial assessment identified the existence of a number of different bamboo stock management models (Community Based Forestry Management, industrial plantation, traditional plantation, etc.) and their associated rules (formal and informal), which need to be both understood and analysed. This PEA provides an understanding and analysis of the political and economic constraints and opportunities for change, leading to a set of specific recommendations that can be turned into delivery objectives as part of BIF's market strategy.

The objectives of the PEA therefore are to:

- Understand the dynamics and incentives of the government, institutions, companies, associations and other market players (the 'drivers of change') which will influence the emergence of the bamboo market;

- Explore how the interests and incentives of key stakeholders can be combined to create 'levers of change' that provide an opportunity for a BIF intervention, or when key stakeholders may resist change such that a BIF intervention is unlikely to be feasible;

- Understand who are the main 'winners' and 'losers' in this market, what the implications are for a BIF programme that will support further growth of the market, and in particular how the poor can benefit from interventions supporting companies engaged in producing higher value-added bamboo-based products;

- Understand whether access to land for growing bamboo is an issue that can create losers amongst poor people; and

- Examine who controls access to, and economic use of, natural bamboo that is owned by a community, where individual ownership is not clear or transparent. In cases where economic benefits of the bamboo are not shared equitably with poor people, how a BIF intervention could support or harm the interests of poor people.

2.2. Approach to the PEA objectives

This study is part of a suite of BIF analysis considering the economic, environmental and climate change dimensions to produce a competitiveness study of the sector. As a result, within the context of the objectives of this PEA assignment and guidance from the BIF Country Manager, the report focuses more on political and social dimensions than economic.

DFID suggests an approach to PEA that looks at the 'the interaction of political and economic processes in a society, the distribution of power and wealth between different groups and individuals, and the processes that create, sustain and transform these relationships over time'[3].

In addition to considering traditional PEA aspects, they have been interpreted through a conflict sensitive lens to ensure that BIF's efforts to develop the bamboo sector 'Do No Harm'. As a result of the unusual diversity of the political environment and the fact that specific sites have not been

[3] DFID, 2009. Political Economic Analysis How to Note, A DFID Practice Paper

identified, this PEA is necessarily 'broad-brush', raising issues that may or may not be relevant to specific locations. As a preliminary foundation it will need to be supplemented by further detailed work in areas chosen for piloting support initiatives.

2.3. Research methodologies

The research focused on two main methodologies for data collection to inform the analysis:

1. **Desk Research:** Covering both academic and grey[4] literature on the bamboo sector, the policy and legislative environment, particularly concerning power, politics, natural resources, land and current government practice and models of economic growth; and

2. **Key Informant Interviews (KIIs):** To understand political economy on the ground and how it influences behaviours, practices and norms for different stakeholders, semi-structured interviews were undertaken with key informants representing different interests, stakeholders and institutions. Purposive sampling and snowballing procedures were used to identify informants with insight into sensitive aspects.

Main Stakeholder groups consulted included representatives from:

- Private sector including market players (i.e. business people, traders);
- Government of the Union of Myanmar;
- Ethnic Armed Organisations (EAOs);
- Civil Society Organisations (CSOs);
- Communities; and
- Donors and External Specialists.

Fieldwork was undertaken with other experts including BIF Country Manager, BIF Bamboo Market Manager, an economist, a bamboo expert, a value chain expert, and an envrironmental impact specialist where possible. This enabled 'cross-fertilisation' of different disciplines and an opportunity to brainstorm together and benefit from the team's collective insights and expertise. The original intention was to visit three locations: two in 'mainstream' government controlled areas to illuminate different stakeholder experiences along the value chain (e.g. production models such as plantation, CBFM, and other aspects such as ethnic dimensions and geography), and a further location where informal political economies are the dominant narrative, particularly under EAO control. While the former was possible, the latter was not given security concerns associated with the nearness of elections.

As a result, the final field locations visited included the following sites:

- Pinlaung Township, Shan State;
- Minhla Township, Bago Region;
- Hlegu Township, Yangon Division; and

[4] Grey Literature is that literature usually produced by NGOs or policy institutes that comes from reliable sources based on sound research but is not an academic peer-reviewed publications source such as a journal.

- Taikgyi Township, Yangon Division.

2.4. Limitations

Given the broad nature of the analysis and timing of the in-country visit there were inevitably a number of limitations affecting the collection and quality of primary data obtained and therefore potentially the findings of this report:

- **Geographical coverage of field visits:** Given the proximity of the elections to the fieldwork timing, travel to areas controlled by EAOs was deemed an unnecessary risk;

- **Sensitivity of topics:** The nature of the discussions was sensitive, particularly on informal business practices and the costs of doing business. While mitigating this challenge through informing the respondent of the confidential and anonymous nature of the interview, in many cases this meant that data comprised useful insights and directions for further research into the challenges of doing business in the bamboo sector, rather than definitive information;

- **Halo bias:** There is a known tendency among respondents to alter their responses to approximate what they perceive as the social norm and minimise socially undesirable answers (for instance that imply corrupt practices). The extent to which respondents are prepared to reveal their true opinions, given the above-mentioned sensitivities, may vary. The team tried to triangulate key findings where possible; and

- **Variable Depth of Sampling:** The relative depth of interactions with different primary stakeholders has varied. To ensure government perspectives were included, the team interviewed senior retired, rather than current, government staff, due to the bureaucratic difficulties of obtaining appointments with senior staff within such a short period in country. This means the depth of sampling has inevitably been a little inconsistent and findings are better seen as a 'snapshot' of the situation[5].

2.5. Structure of this report

This report approaches the analysis by describing the broad Myanmar political and economic context first, as it specifically relates to the bamboo sector. It then examines the key stakeholders within the sector, including how they relate to each other. Next, the report considers the formal policy and legislation enabling environment and its application and relevance to the bamboo sector. This analysis is then placed in the context of the informal 'rules of the game', which reflect the reality of participating in a successful bamboo business. The penultimate section considers the risks and conflict sensitivity dynamics inherent in the choices and opportunities for the development of the bamboo sector. It is through this approach and analysis that the answers to the stated objectives of the PEA are tackled. The findings emerging throughout the analysis are then summarised against these objectives, with the final section identifying and explaining a set of related recommendations.

[5] For this reason the analyst has also avoided the practice of quantifying information. When available information is qualitative and collected within a complex context, it is easy to fall into the trap of attempting to quantify responses as a perceived way to increase rigour and be more 'scientific'. It is difficult and sometimes misleading though to use quantitative approaches to analyze data that is qualitative by nature. Quantifying qualitative responses therefore, may reinforce an overemphasis on the validity of numbers as an expression of legitimacy while imposing a reductionist flavour on important narratives.

3. Context and drivers of change

This section sketches a broad outline of the current political and economic situation in Myanmar, and discusses implications for the bamboo sector.

3.1. Political situation

Myanmar is an incredibly diverse and complex country in the midst of a challenging transition from an oppressive military government, contested in many parts of the country, to a market-based economy and democratic, civilian-led government. It has been under military rule since 1962, but opening up since 2011 with a move away from a pure military government to 'semi-civilian' rule. An indication of the extent to which the military-led government was unable to represent the interests of its citizens and create the environment for all people to thrive and develop is given by the fact that since 2009 there have been 52 different armed ethnic groups opposing it, as documented by the Myanmar Peace Monitor.

Alongside reforms on the political front within government, there has been positive progress towards national peace with a number of armed groups signing ceasefire agreements. While ethnic armed organisations (EAOs) are still suspicious of government and military intentions they are, in the words of one respondent, 'pursuing the opportunity for long term peace with hope'.

The 2015 election has now brought the National League for Democracy (NLD) a significant majority in the two houses with 79% of upper and lower house seats. The incumbent Union Solidarity and Development Party (USDP) won only 8% of the seats[6] and has conceded defeat. At this stage though, under current constitutional arrangements, the military still exerts considerable influence in government, with 25% of the seats uncontested in both houses. Importantly they also retain executive control over the Home Ministry (under which sits the General Administration Department), as well as less controversially the Ministry of Defence and Border Affairs – both of which could impact in various ways on the future development of the bamboo or any other industry.

The broader political and development implications of the election are still unclear and are expected to emerge slowly over the next six months, not least because NLD policies have only been articulated in relatively broad terms to date in key policy areas such as the economy, potential changes to the 2008 constitution (particularly around demilitarisation and the potential for federal models), and the future direction of the peace process.

3.2. Conflict and governance at the subnational level

According to the 2008 constitution, there are State/ Region governments at the subnational level, as well as provision for six self-administered areas (SAAs) for specific ethnic groups. The details of individual governance arrangements in these SAAs are complex and political dynamics vary enormously, in turn affecting the conflicts surrounding them. Some areas are also contested by multiple actors, with overlapping claims to territory and few agreed borders sanctioned officially by law[7]. However, a broad generalisation from respondents would suggest that EAO influence in contested areas is primarily in rural areas while government are centred near urban centres with spheres of influence emanating out.

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[6] See International Crisis Group, 2015, The Myanmar Elections: Results and Implications Crisis Group Asia Briefing N°147, 9 December 2015, Brussels, Belgium

[7] Joliffe, K., 2015. Ethnic Armed Conflict and Territorial Administration in Myanmar, The Asia Foundation, Yangon, Myanmar

While most EAOs have their own constitution and governance systems, their nature varies significantly in terms of strength, areas of influence and capacity to administer them. Some EAOs consider they represent the communities under them while others may be more interested in simply maintaining the economic benefits they enjoy. As Joliffe notes (2015), the lack of stable, clearly mandated territorial and governance arrangements in contested areas 'places a great burden on communities, leaves ceasefire areas highly vulnerable to renewed conflict and provides no basis for comprehensive governance, economic, rule of law or other reforms' (p.vii, 2015).

The situation is also complicated by the different ceasefire arrangements. As of December 2015, the National Ceasefire Agreement (NCA) has been signed by eight participants with seven groups still yet to sign for various reasons. Not all non-signatories are still in conflict - thirteen groups have earlier ceasefire arrangements, the majority of which are holding (e.g. KNPP in Kayah State), although others with ceasefire arrangements have broken down into active conflict[8].

Given the current political landscape of Myanmar, the political economy of bamboo is to a large extent defined by the location of the reserves and the stakeholders exerting political control in that location. While the peace process is fraught with uncertainty and it is unclear how the NCA will continue to be promulgated with the new government, eventually it is hoped that the country will have a successful peace process and political dialogue to enable consensus on the disbursement of legitimate political power across the country. The interim period and transition processes however are likely to take up to ten years (optimistically) assuming that there is no backsliding[9].

In the next period it is clear that three sorts of situation are likely to continue:

- Areas where central government is in control and formally administers;
- Areas under the control of EAOs; and
- Areas where there are dual administration systems in place.

The nature of the development of the bamboo sector, types and models of development (e.g. large scale plantations versus small scale plantations, etc.) and the constraints, opportunities and success factors will therefore take different forms depending on location.

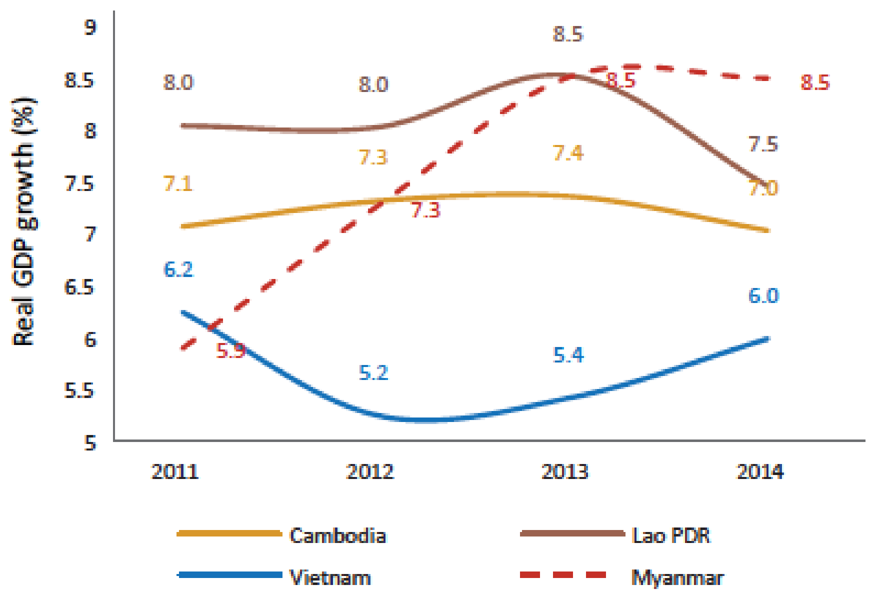
3.3. Economic situation

Up until this point, the isolationist and oppressive nature and policies of the military government meant that Western governments, principally the US and EU, imposed various sanctions on Myanmar. Some of these have now been lifted and there are more opportunities for economic development. The economy of Myanmar has been characterised as being mismanaged, corrupt and under the control of the military and an economic elite known as the 'cronies' (individuals with close ties to the former military government and armed forces)[10] but as part of the broader reforms undertaken by the government of U Thein Sein since 2011, changes have been brought about in the economic sector as well as the political sector. There have been positive signs that recent reforms appear to be contributing to Myanmar's continued real economic growth in GDP of 8.5% (see Figure 1)[11].

[8] E.g. between the Tatmadaw and the Kachin Independence Organisation (KIO). In Northern Shan, the SSA is also in active conflict, leading to large-scale displacements
[9] This is a large assumption and many pathways are possible
[10] See International Crisis Group, 2012. Myanmar: The Politics Of Economic Reform, Asia Report N°231, 27 July 2012 Brussels, Belgium
[11] World Bank Group, 2015. Myanmar – Economic Monitor, October 2015, Yangon, Myanmar. P.1

While official data is often patchy or unreliable what is clear is that the economy has, for a long time, not benefited the poorest in society. There is little accurate data on poverty levels in Myanmar - for instance the World Bank and Asian Development Bank do not have entries for Myanmar in their poverty ranking tables for 2014. Agriculture and natural resources have been the traditional mainstays of the Myanmar economy and World Bank data shows that in 2015 the sector share of GDP is still weighted mainly towards the agriculture sector[12].

Figure 1: Real GDP growth 2011 – 2014 (%) Source: World Bank Group October 2015



However many constraints remain and the World Bank Doing Business Report in 2015 notes that Myanmar ranks 167 out of 189 in overall ease of doing business[13]. The UNDP's Human Development Index ranking has Myanmar ranked at 150 out of 187 countries placing it in the low human development category. In addition, the recent investigations into the jade business illustrate the polarisation of wealth and how a small handful of individuals continue to make enormous profits in their exploitation of national resources at the expense of the wider population[14]. This lack of transparency and good governance in the natural resources sector is in stark contrast to some of the relatively positive policy changes, and is illustrative of the continuing need for further attention and progress.

The relationship between poverty and geography is also not completely clear, with a mixed picture emerging. The World Bank has noted that spatial distribution of poverty shows the majority of the poor live in coastal areas, with Rakhine exhibiting the highest poverty rate (78%). One might expect that due to conflict and marginalisation areas in the hills would also have high rates of poverty but in fact they tend to be closer to the national average (approximately 40%). However, the statistics do not necessarily reflect where the greatest numbers of the poor live. For example, Myanmar's central 'Dry Zone' has the lowest poverty rate of 29.5%, but as this is a heavily populated region the absolute numbers of poor people are high. In contrast, Chin has a poverty rate of 71.5%, but a lower absolute

[12] World Bank Group, 2015. Myanmar – Economic Monitor, October 2015, Yangon, Myanmar. P.8
[13] World Bank Group in the 2015 ranking of doing business found at http://www.doingbusiness.org/rankings
[14] Global Witness, 2015. Jade: Myanmar's Big State Secret, London, UK. P.6

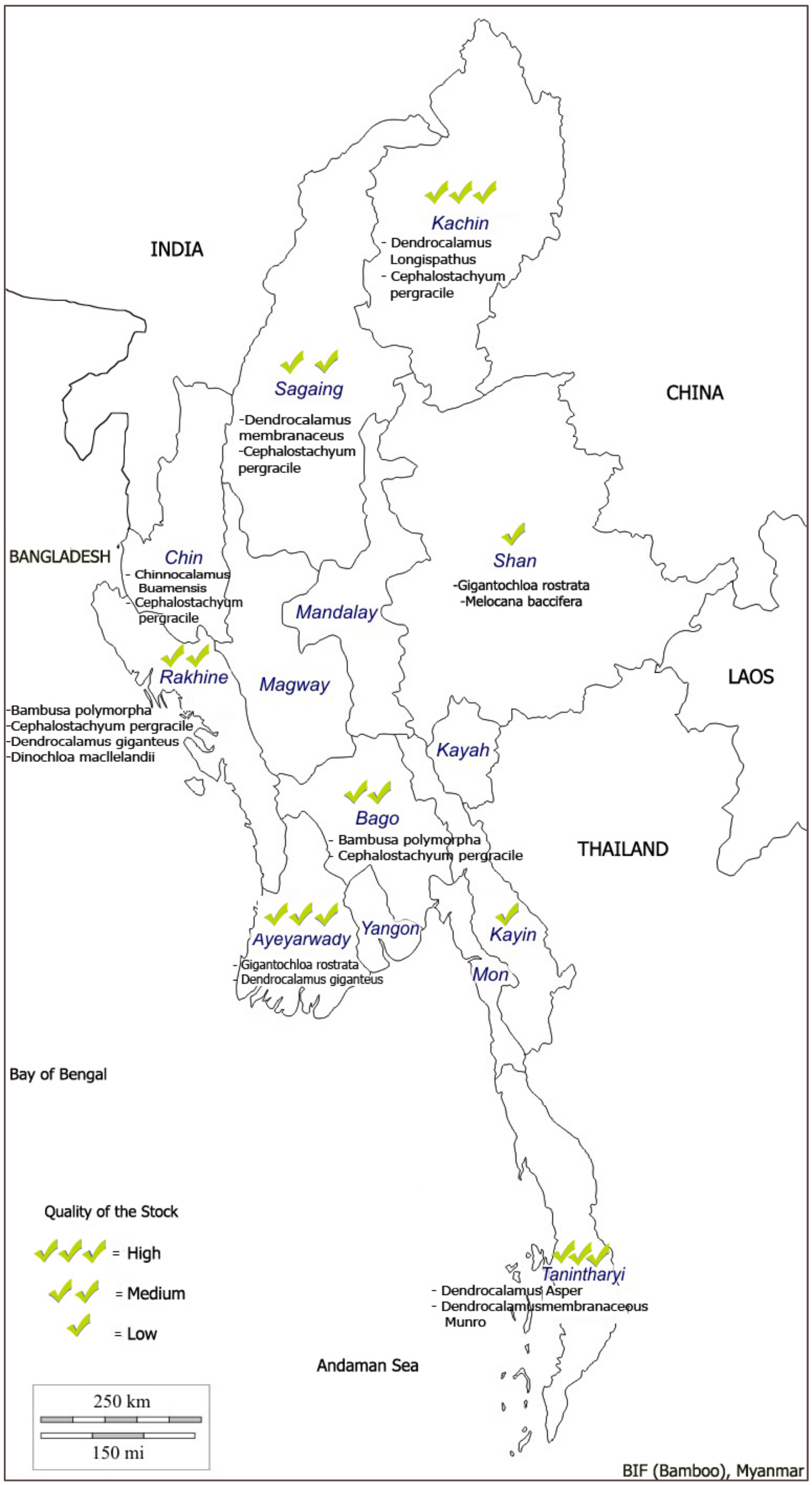
number of poor people due to the smaller population. Rakhine combines both statistics: it has a high poverty rate and large numbers living in poverty.

Interestingly, the hilly areas to the East and on the borders of Thailand are relatively well off. This suggests that if one considers only poverty distribution against potential bamboo reserves then supporting bamboo activity in Rakhine would make most sense. However, given the broader political economy and conflict dimensions, in conjunction with strategic infrastructure and bamboo reserves, this alters and widens possibilities and suggests other potential areas.

3.4. Location and quality of reserves

According to members of the Myanmar Rattan and Bamboo Entrepreneurs Association (MRBEA) there are different qualities of reserve and this affects considerations of where to develop bamboo and for what purpose. The key areas of higher quality reserves are considered to be in Kachin, Ayeyarwaddy and Tanintharyi, with good reserves also found in Sagaing, Rakhine, and Bago. Finally, there are also adequate quality reserves in the east in Shan (see Map 2 below).

Map 2: Quality of bamboo stocks by location in Myanmar



However, the lack of strong information suggests that the quality of all reserves requires more research in order to assess their viability, to understand which species are present and to assess the quality of the soil and conditions. The areas visited during this study demonstrated high levels of over-harvesting, lack of management and reducing bamboo size and quality[15].

As can be seen (see Map 1 above), there is some overlap between bamboo areas and those controlled by EAOs. For instance, the area down in Mon and Tanintharyi (east of Dawei) towards the borders of Thailand is under the control of the KNU. Kachin has some areas under the control of the KIO and its allies, and other bamboo reserves are thought to be in ceasefire areas or areas of active conflict.

Generally speaking, bamboo is found on slopes and hillsides. The hilly areas of Myanmar are in three broad ranges: the Arakan Range in the West, the Bago Range in the centre and the Shan Hills towards the East. In areas close to borders in the North and East of the country are the major contested areas, with large proportions of ethnic groups. Those living in these areas also tend to have different production systems and relationships with the land.

3.5. Methods and scale of production

Ethnic groups living in hilly areas tend to undertake swidden agricultural methods which means they ‘slash and burn’ areas on the hillside, use the cleared areas for agriculture for a few years and then move to a new area, eventually rotating back to the original area after a number of years of the land lying fallow. This method of agriculture is usually based on community land tenure arrangements rather than individual ownership which has implications for land ownership and models of use, as well as how commercial plantations might be developed. As noted earlier, there is not yet a comprehensive understanding of the different land tenure systems across these areas, although work is being undertaken in KNU areas (by Kesan and the Forestry Department of the KNU) and in Shan and Chin (by Gret and the Land Core Group).

There are five main potential supply systems of bamboo for any significant processing beyond the cottage industry level. These include:

- **Reliance on harvesting from natural bamboo forests:** Cutters and cutter groups enter natural forest within, or outside of, government managed forestry areas to access bamboo. At present the majority of domestic market demand and domestic needs are fulfilled through this system;

- **Large scale managed plantations:** There are no known, existing large-scale commercial plantations in Myanmar, according to respondents. Plantation in this context meaning a large-scale agricultural operation systematically producing bamboo products managed by a company with a paid labour force. The scale of the plantation is important as this alters the approval mechanism for the allocation and use of the land (above 500 ha requires approval at Ministry level in Nay Pyi Taw);

- **Small scale managed plantations:** This scale of commercial activity in the bamboo sector is very nascent with MRBEA piloting a commercial plantation model using allocated Forestry Land. There may be other examples of both family or company operated plantations (possibly in geographic areas that were not visited) but these did not emerge from discussions with knowledgeable respondents;

[15] This was also the informed opinion of the bamboo specialist Durnford Dart, on the field assessment 2015

- **Community Forest Enterprises:** Community Forestry is a successful policy around the world for communities to protect and sustainably manage their forests and continue to derive livelihood benefits. Community Forestry Enterprises are defined by Kyaw Tint et al (2014) as "enterprises that are formed from the cooperative action of forest-farmers for the production and commercialization of forest and farm products"[16]. In Myanmar, the Community Forestry Instruction (CFI) issued in 1995 initiated the promotion of CF in the light of increasingly degraded forest reserves. This form of production system is starting to expand in the hard wood sector; and

- **Family bamboo reserves:** Little information was forthcoming about this production system from the research. It is speculated that it is likely to be more important in some areas of the country depending on customary or local culture.

At this stage, respondents noted that people were reliant on natural bamboo forest or some family or community reserves for bamboo. With no known large-scale bamboo plantations and few commercial small-scale plantations, the sector has primarily been reliant on harvesting from the natural forests. Stakeholders suggested that this was not likely to be sustainable without effective management of the reserves[17]. This strongly suggests that for a sustained supply there needs to be a managed source, which in turn points towards either a plantation or Community Forest Enterprise (CFE) model (or a combination of the two) to produce sufficient quantity and quality bamboo for processing.

3.6. Drivers of change

As with the political agenda, the intentions of the new government in the economic field also remain unclear, but it is generally assumed that there will be continued positive economic change.

From a 'Drivers of Change' (DoC)[18] perspective, considering how political, economic and social change occurs, this makes the next period of change in Myanmar very difficult to analyse and predict. Some examples of the DoC voiced by respondents included their perceptions that:

- Increasing democratic practices may create more political space for broader pro-poor change;

- The election of the new government may result in increasing momentum and space for positive international development and policy change;

- Agents of change at all levels, including politicians, will likely be keen to break with the past and demonstrate new, improved behaviours;

- Confidence in political change may create economic change and willingness to invest; and

- The new government may create more space for a successful peace process.

The majority of assumptions made were positive, although a few concerns were raised around the possibility of increased instability emerging from military resistance to change. One respondent discussed a risk that the possibility and practice of land grabbing by cronies and the military might have a last spurt and this is discussed further below.

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[16] Page 8 Kyaw Tint, Springate-Baginski, O., Macqueen, D.J., and Mehm Ko Ko Gyi (2014). Unleashing the potential of community forest enterprises in Myanmar. Ecosystem Conservation and Community Development Initiative (ECCDI), University of East Anglia (UEA) and International Institute for Environment and Development (IIED), London, UK.

[17] In fact the team visited a small processing plant in Shan State on the field trip that had been hoping to be reliant on this model given the bamboo forests surrounding the plant. Unfortunately these reserves had quickly been overharvested and bamboo for processing was now brought to the plant from far further away.

[18] DFID, 2009. Political Economic Analysis How to Note, A DFID Practice Paper

What these assumptions might mean for the bamboo sector is also not yet clear although they would suggest continuing progress on key policy changes, more opportunities for the voice of the people to be heard in policy change, and increasing opportunities to set new models and ways of doing business – in the interests of pro-poor policy setting. Not least as the international donor community may now release increased funds to facilitate such change.

Overall, despite the doubts expressed, respondents considered that positive change in the political and economic environment would reinforce momentum for continuing progress.

4. Trends, key stakeholders and factors for change

This section considers the main trends within the bamboo sector relating to reserves and production, then moves to an analysis of the sector's key stakeholders. These stakeholders are summarised in Table 3, where their roles are briefly described, along with indications of their (possible) positive and negative incentives and interests. Additional important factors concerning stakeholder relationships that may also have a strong bearing on BIF's work and the development of bamboo are then explored, before moving to the final section on conflict sensitivity and risks.

A universal observation from respondents during the course of the fieldwork has been that the bamboo sector has been 'ignored' and 'hidden'. Its development has traditionally not been high on the agenda of the Forestry Department which has been more concerned with the timber industry. Myanmar has been renowned for its high quality timber products and, given the high economic value of hard woods, the investment and national focus from the government and Forestry Department (under MOECAF) has been on teak and to a lesser extent other indigenous hard wood timbers. The rate of forest loss in Myanmar is among the highest in the world, running at 0.9% per year between 2000 and 2010, which is one reason the Forestry Department is now turning towards bamboo[19].

In conjunction with this trend has been the important market-driven interest from the private sector, who have been focusing on teak up to the present time, and now want to find an alternative source of timber while new plantations of teak are growing. In addition, focus has been shifting to secondary forest products such as rattan and the same business interests are now turning to bamboo.

4.1. Trends in bamboo reserves and production

It is extremely difficult to obtain any accurate data on the status of the bamboo sector, from the raw resource stocks available in Myanmar, through to production data and value of production. The same thin information appears to be repeated with slight variations throughout the literature. For instance, Myanmar has:

- The third largest global reserves of bamboo[20];
- 2.17 million ha of bamboo forest[21]; and
- 21 recorded genera and 102 species of bamboo in Myanmar[22].

The United Nations Food & Agriculture Organisation (FAO) in 2010 considered the overall trend in the area under bamboo forest in Myanmar to be reducing, though with a recent flattening (see Table 2)[23]. However, key informants also suggested that in some areas the amount of bamboo forest was increasing as it expands into deforested areas.

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[19] Kyaw Tint, Springate-Baginski, O., Macqueen, D.J., and Mehm Ko Ko Gyi (2014). Unleashing the potential of community forest enterprises in Myanmar. Ecosystem Conservation and Community Development Initiative (ECCDI), University of East Anglia (UEA) and International Institute for Environment and Development (IIED), London, UK. P.10

[20] Cited in the BIF Bamboo high level assessment: FAO. 2010. Global Forest Resource Assessment 2010: Country Report Myanmar. Food and Agriculture Organization of the United Nations, Rome. http://www.fao.org/docrep/013/i1757e/i1757e.pdf (Main Report); http://www.fao.org/docrep/013/al576E/al576E.pdf (Country Report)

[21] A presentation by Aung Zaw Moe from the Forest Research Institute in Yezin in 2014

[22] (Kress et al 2003)[22]. Although UNEP and INBAR[22] suggest only 75 species. While FAO cite the Forest Department's number of 96 species in 2009 Source http://www.fao.org/docrep/005/ac648e/ac648e08.htm

[23] Page 31, FAO. 2010. Global Forest Resource Assessment 2010: Country Report Myanmar. Food and Agriculture Organization of the United Nations, Rome. http://www.fao.org/docrep/013/i1757e/i1757e.pdf (Main Report); http://www.fao.org/docrep/013/al576E/al576E.pdf (Country Report)

Table 2: Trends in area under bamboo forest from 1990-2010. Source: FAO 2009

Year	1990	2000	2005	2010
Myanmar (1000 Ha)	963	895	859	859

The International Institute for Environment & Development (IIED) cites the Forestry Department figures on bamboo production and its value in 2009-2010 as a harvest of 1,303,078,000 poles with a low value of circa US$51,101[24] but accuracy of these figures is likely to be limited given findings from the field discussed in the section on informal governance[25].

Nevertheless, despite the paucity of formal statistics, the ubiquitous nature of bamboo in the domestic livelihood and tourism economy is recognised by all, with its multiple uses in construction, handicrafts and household use, as well as for edible bamboo shoots. However, as a broader economic opportunity for export and industry development, the impression is that the potential of bamboo has been under-utilised.

4.2. Key stakeholders in the bamboo sector

According to the President's Office, the vast majority of businesses in Myanmar (99.4%) are Small and Medium Enterprises (SMEs) (Bissinger and Lin Maung Maung, 2014)[26], which correlates with the apparent, known profile of the bamboo sector. However there are multiple stakeholders covering different niches within the bamboo sector 'ecosystem'.

The main stakeholders are outlined in Table 3 below, with details of their current roles and status in the bamboo sector, as well as their incentives to encourage or resist changes in the sector.

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[24] Kyaw Tint, Springate-Baginski, O., Macqueen, D.J., and Mehm Ko Ko Gyi (2014). Unleashing the potential of community forest enterprises in Myanmar. Ecosystem Conservation and Community Development Initiative (ECCDI), University of East Anglia (UEA) and International Institute for Environment and Development (IIED), London, UK

[25] There are often discrepancies between the formal numbers and size of bamboo poles reported and the actual numbers harvested. The exchange rate used here is a historical rate based on figures from July 2010

[26] Original citation is the Organisation for Economic Cooperation and Development, Multi-dimensional Review of Myanmar: Volume 1 Initial Assessment (Paris: Organisation for Economic Cooperation and Development, 2013), 104

Table 3: Overview of key stakeholders in Myanmar's bamboo sector

Type of player	Player	Role and status	Incentives and interests for change
Core Value Chain Players			
Producers of bamboo	**Community Forestry (CF)**	The FD has initiated some CF enterprises as well as working with an NGO like ECCDI in a number of States and Regions, assisting Forest User Groups (FUGs) to manage areas of timber. There is only one example respondents mentioned to date of bamboo CFE (visited by the team). The technical capacity of all actors would appear to benefit from capacity building.	• Bamboo reserves in quantity and quality appear to be diminishing. Therefore incentives to learn improved management of the resource base • Improved security of sustainable income for communities • Within a Community Forestry Enterprise (CFE) model potential competition for natural bamboo with other harvesters is reduced as CF Forest User Groups receive allocated land and reserve for their specific use
	Family plantations	Data is scarce but it may depend on location	• Bamboo reserves in quantity and quality appear to be diminishing. Therefore incentives to learn improved management of the resource base • Improved security of sustainable income for communities
	Small plantation owners	This model is just starting with few players involved yet. One company interveiwd for this study has now acquired land from the Forestry Department (FD) to start a small plantation and nursery	• Investment has started, providing an incentive to create success and an economic return • Creates a secure, consistent high quality bamboo supply for processing • Creation of a sustainable quality resource base for economic growth and improved products and options
	Large plantation owners	None known at present in Myanmar	• N/A
Extraction / harvesting of the raw product	**Bamboo cutters (Natural Forest or CFE)**	Initial labour in bamboo production receiving wages from basic piece of work	• Maintaining income levels is becoming increasingly hard, as cutters have to travel further from the road to find quality bamboo for cutting • Bamboo reserves in quantity and quality appear to be diminishing • Within a CFE model potential competition for natural bamboo with other harvesters is reduced as they receive allocated land and reserve for their specific use • Security of sustainable income improves
	Bamboo cutter group (Natural Forest or CF)	Lead by a group leader who deals with the traders, one group may have more than 20 cutters as members	• As above – improved management of reserves provides greater security of income

	Bamboo shoot collectors	Collect shoots from the natural forest and sell to processors or direct to market	• Bamboo shoots are increasingly hard to harvest with people travelling long distances to access them, due to over-harvesting • While bamboo shoot production in CFE and small plantations may increase supply and therefore competition with collectors from natural forest, i.e. they may become potential losers. Nevertheless there also appears to be an expanding market
	Transport support workers	Load, unload and grade bamboo at the wholesaler/trader	• Increase in demand would likely benefit their business and livelihoods
Bamboo Processors & Wholesalers	**Traders/ aggregators**	Key actors who apply for bamboo extraction rights (yearly quota) from Forestry Department and organise bamboo cutters. They also transport and sell to other areas and may produce basic bamboo products like mesh for walls / fences. Sell construction materials e.g. timber posts, roofing materials, thatch and nipa palm and bamboo products e.g. mats and handicraft	• Increase in quality raw material supply and volume of trade would benefit their business,, but may be sensitive to lower prices
	Handicraft makers	Produce handicrafts, household utensils or support equipment (for transportation and measurement). Some buy raw bamboo from traders and some cut it themselves	• Increase in demand would benefit their business and livelihoods, but may be sensitive to lower prices
	Seasonal workers	Almost all migrate from Central Dry Zone but some come from nearby towns. Production starts after rainy season (end October) and continues until before the next rainy season (late April or early May). The whole family usually travels and traders or aggregators provide housing	• Increase in demand would likely benefit their business and livelihoods
	Bamboo shoot processor	Receive raw bamboo shoots from collectors and pickle it. Their main market is domestic. Mainly during the rainy season when the bamboo is growing and producing shoots	• Increase in raw material demand would benefit their business and livelihoods, but may be sensitive to lower prices
	Exporters of semi-processed bamboo	Convert bamboo poles and create basic raw products such as flower sticks and cross-pieces for kites, for export	• Increase in raw supplies would likely benefit their business

	Large scale bulk processing	There are a few examples of bulk processing (pulp, paper and charcoal), details were sketchy (for example a joint venture with the Chinese in Rakhine and one with a Thai company near the border) and some respondents noted that, of the nine large plants identified involving State-owned Enterprises, none of them were now operating. One external respondent had assessed one of these plants noting it had been asset stripped and the building was now used for the garment industry instead	• Would require large investment and stable regulatory environment, as well as large-scale plantation production systems to be viable. Incentive to support bamboo production systems at scale • Such an increase in raw material supply would benefit their business. May be sensitive to prices fluctuations
	Industrial bamboo business	There are a few players involved at the processing level (flooring and furniture, chopsticks and mat boards). While some are exporting to Europe and Asia markets, a scan of open source company directories on the internet yielded only a few of the same companies, which suggests that the majority of companies are likely to be catering to the domestic trade within the different bamboo value chains	• Investment has started, providing an incentive to create success and an economic return • Creation of a sustainable quality resource base for economic growth and improved products and options
Supporting Actors			
Civil Society	**NGOs**	There are a number of international and national Non-Government Organisations (NGOs) interested in the sector[27] which could make useful partners in various development aspects. The majority is concentrating in the environment, conservation and forestry sectors rather than directly on bamboo and Non-Timber Forest Products (NTFPs). There is a mix of policy, technical support and practical programme-oriented organisations, e.g. Regional Community Forestry Training Centre (RECOFTC) is associated with and located directly in the Department of Forestry's offices in Yangon, supporting the government with technical and capacity building support	• Generally civil society is most interested in positive improvements in the lives of the poor, sustainable livelihoods and social justice. This means that their core business is pro-poor, pro-environment and an improved governance environment. As a result where objectives are shared they will collaborate • While some NGOs are resistant to working with private sector, increasingly NGOs are open to work positively on common goals, particularly on policy or at the community level • Some NGOs may have a specific watchdog role that will prevent them from working closely with the sector
Trade Association	**The Myanmar Rattan and Bamboo and Entrepreneur Association (MRBEA)**	MBREA is part of the Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI) and is organized by businessmen involved in timber, bamboo and rattan related businesses. Its role is to promote export opportunities, ease bureaucratic processes and generally develop the sector. At present it has 27 members, many of whom are engaged in exporting to various markets such as Europe and countries in Asia and S.E. Asia. However, this is a young association whose capabilities are not clear so in the course of initiating a longer-term partnership an initial competitiveness accountability and responsiveness assessment might be helpful	• Promoting the trade and business in this sector is their core business and mission • Members have invested in change already through the development of their plantation and their own businesses • There may be different philosophies and approaches from members within the umbrella that do not accord with BIF approaches • There may also be positive or negative competition between different companies or cliques within the umbrella and unknown politics that have yet to emerge

[27] For example: RECOFTC, Bamboo lovers Association, ECCDI and others

The Government of the Union of Myanmar	**The Forestry Department - under the Ministry of Environmental Conservation and Forestry**	The main regulator for forest management in all capacities. They provide permission to bamboo traders for extraction rights (using a yearly quota) and also collect forest revenue, in the form of royalties. They monitor the amount of bamboo being harvested and its quality at field level. They are also the 'gatekeepers' for monitoring and permitting bamboo to be transported out of the Township of origin to end market destinations. For export they also have the power to issue certificates for bamboo export and accompanying exemption from tax. There is now a growing environmental structure alongside the traditional forestry department structure as well (see Figure 2)	• Is very interested in the bamboo sector development at the senior levels • It is not yet clear how or whether this will translate to the subnational level • Has set itself very ambitious Community Forestry Enterprise targets that may provide a common foundation for collaboration with other stakeholders interested in improving CFE • The environmental structure is new and so it is early days to assess its intent and how well it fits or not within the Forestry Department
	The Ministry of Agriculture and Irrigation	Has jurisdiction over the use of Farmland. Has jurisdiction of water areas (ponds, lakes, etc.) within forested areas creating overlapping authority in some areas	• The MOAI may compete with the MOECAF over jurisdiction of some areas that could be used for bamboo. It is not clear whether this will be a positive or negative driver and incentive for change
	The Directorate of Trade - under the Ministry of Commerce	Has a role in issuing export licenses to businesses wishing to export products to other countries	• The Directorate of Trade has an incentive to raise revenue and increase export trade
	The Myanmar Customs Department - under the Ministry of Finance	The main government agency checking quantities of export materials and ensuring that all necessary permits are in order. For instance for bamboo, in addition to the usual documentation such as an export license and permit, exporters require a 'Forest Pass' for the shipment of forestry produce. Customs duty is levied according to the tariff schedule and export duty is levied on the tax base 'Free on Board' (F.O.B) value	• The Myanmar Customs Department has an incentive to raise revenue
	Internal Revenue Department (IRD) - under the Ministry of Finance	Business people must also pay income tax on profit as well as royalties on the bamboo extracted and transported. In fact, private companies are required to pay corporate income tax at a rate of 25% of profits paid to the township officer of the IRD	• The Internal Revenue Department has an incentive to raise revenue
	City councils	All wholesale and retailers need permission to operate their business in the township. The city development committee or council therefore requires a fee	• The City Council has an incentive to raise revenue, the more bamboo businesses the more revenue they will raise.

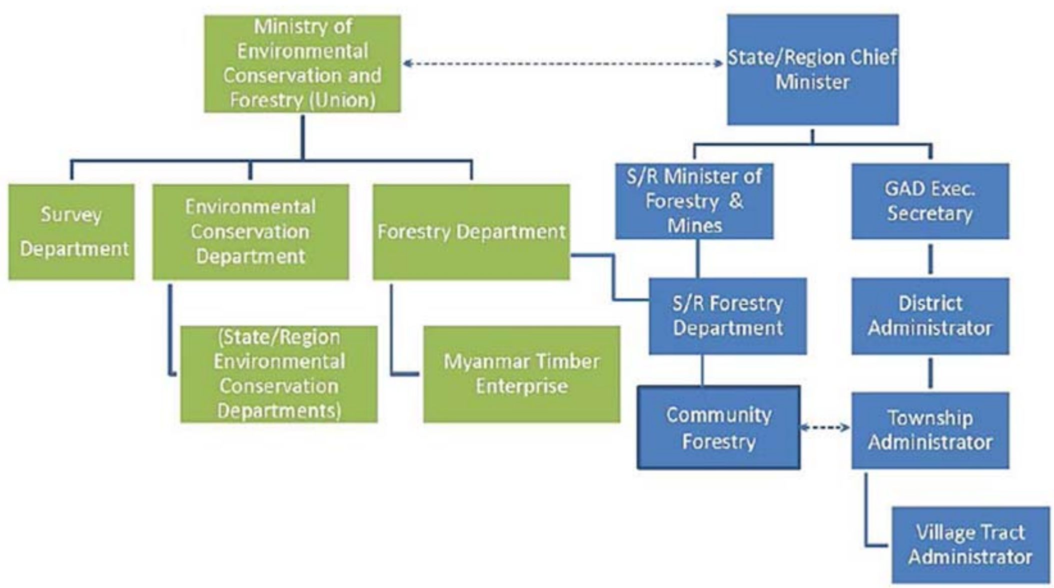
Other Governing Authorities	**Ethnic Armed Organisations**	As can be seen from Annex 2 there are multiple different governing authorities with varying levels of functional institutional disaggregation. Some EAOs and SSAs may have their own forestry departments while others may not. This will depend on their size, how long they have been in control in their areas and the degree to which they are recognised within the constitution or by the National Government	*Positive incentives and interests* • It is likely that incentives and interests for change are high from EAOs, for reasons such as: o The need to raise revenue o Other sources of income such as timber may be declining o There is implicit recognition of their authority through working with business that legitimises them. If able to 'bring' jobs and income to local communities, they strengthen relationships with their local constituency *Negative incentives and interests* • Some EAOs (or commanders within EAOs) consider any development that enters their areas is an expansion of the sphere of influence of government and so they resist • Similarly, they may consider that 'normalising' of conditions, undermines their political position (e.g. it is harder to return to conflict)

4.3. Stakeholder incentives and relationships

When identifying 'levers for change' based on the incentives and interests of different stakeholder groups as outlined in Table 3, there are inevitably competing factors. On the one hand, given that: Myanmar relies heavily on natural resources as a percentage of government revenue; the government has committed to a target to increase tax revenue to 10% GDP by 2018 from an estimated 4.4% in 2013-14 (Thet Aung Lynn and Mari Oye, p.4, 2014); and salaries of employees of the State Forestry Department are paid from the State and Region Fund, it is likely that there will be increased pressure to collect revenue at the State level. This may impact on the bamboo sector as MOECAF is able to collect revenue on certain species of timber, including bamboo, at the subnational level[28].

The relationship between the Union Ministries and the State level Departmental Head of Forestry may also be a two-edged sword. There is a line of direct accountability from the Union Ministry to the State level (as shown in Figure 2 below), while there is only coordination required at the State level between the Head of Forestry and the State Minister of Forestry and Mines, even though their work is included in the State level budget. This can potentially create a disjuncture within the Ministry and is in fact visible specifically in the bamboo sector, for example: the State Minister for Forests is responsible for the regulation of bamboo, charcoal and small forest production, yet large timber production is under Union authority (Nixon, Joelene, Kyi Pyar Chit Saw, Thet Aung Lynn, and Arnold, p.26, 2013). This may create a confusing business environment and further tensions in the future.

Figure 2: The forestry administrative structure. Source: Thet Aung Lynn and Mari Oye, p.28, 2014



For programming purposes, there are two sets of implications at play here. Firstly, in terms of policy, there are indications that the central government is keen for support, with significant potential political will to encourage bamboo production. President U Thein Sein has encouraged private and public sector to actively work on the bamboo sector as 'bamboo is the poor man's timber'. But how this political will translates to the State and Regional levels is not entirely clear given the disjuncture

[28] According to the 2008 Constitution, the Regions or States are allowed to collect taxes on the following aspects relevant to bamboo: Land, and taxes collected on vehicles on the road or vessels on inland water ways in accord with law as well as proceeds on properties owned by the Region or State. (Thet Aung Lynn and Mari Oye, p.53. 2014)

described above. It will be important to ensure that decision-makers at the State and Regional government levels are aware of the Union level positive political will towards bamboo development and that they have a role to play in the development of successful models to meet central CF targets.

Secondly, it is in the interests of State and Regional government to increase the potential for raising income. The drive for revenue-raising at the State level may enable increased business activity as new businesses are provided land and technical support from the Forestry Department without undue bureaucracy. However, it may also potentially put pressure on the nascent sector or even have a negative impact on its viability if it cannot thrive. As noted by Bissinger and Linn Maung Maung (p.iv, 2014) businesses engage with a variety of different parts of government and different firms experience variable treatment depending on their size, sector of operations and the personal networks of the business owner (rather than geographic location). The move towards decentralisation of authority to State and Region governments (as proposed by President U Thein Sein and taken up by the NLD) has also been met with mixed reactions from businesses. Some small and large businesses said that this 'only means more officials to bribe in order to get things done' (Bissinger and Linn Maung Maung, p.v, 2014).

Returning to the policy environment for the bamboo sector, were the BIF programme to have a policy development component, then there are potential partnerships with strong civil society groups that, along with the MBREA and Forest Research Institute, might provide a useful initial platform for developing action research and policy to influence both the economic environment and the possibilities for CF development more generally in Myanmar. There are also possibilities for disseminating information through organisations such as the Bamboo Lover's Association, which raises awareness on the importance of bamboo at the village and community level. This potential is evidenced by the increasing opportunities for civil society (albeit by invitation) to participate in policy development[29].

[29] For instance considering the Draft Land Policy in 2014, the EITI process and other multi-stakeholder processes

5. The policy environment

This section considers the formal national policy and legislation environment and provides an overview of critical areas of governance relevant to the bamboo sector and its development. It concentrates on the statutory dimensions of land and natural resources.

5.1. Key policies and legislation

The management of bamboo as a natural resource falls under the jurisdiction of MOECAF. The bamboo sector is potentially affected by a large number of policies and legislation falling under MOECAF. Once at the commercial level, its harvesting, management, transport and sale is monitored and under the jurisdiction of the Forestry Department. However, domestic use of bamboo on private land is essentially unregulated until it is sold commercially or in large amounts. Table 4 below identifies these different policies and laws, briefly describing them and their relevance to bamboo. As can be seen, while broadly applicable, they are rarely specific to bamboo – presenting an opportunity to consider what regulations or policy might improve the enabling environment for the sector.

Table 4: Key policies and legislation and their relevance to bamboo

Statutory Legislation or Policy	Brief Description	Relevance to Bamboo
Constitution (2008)	Supreme law of the land	The government is the ultimate owner of all land (Article 37), therefore land use property rights may be granted and rescinded. Ownership and protection of private land property rights are recognized (Articles 35, 37, 356, 372)
Forest law (1992)	Covers all forest resources in the country including protected areas (Reserve Forest (RF) and Protected Public Forest (PPF Land) as well as public forestlands covered by the Vacant and Fallow Virgin Land Law (VFV law)	Rights may be granted for local supply plantations (e.g. bamboo or timber) or firewood plantations
National Land Use Policy 6th Draft (2015)	Aims to promote: (a) sustainable land use management and protections of environment/ culture and natural resources; (b) strengthen land tenure systems including customary systems; (c) responsible economic development	Harmonising the approaches to forest, agriculture and other lands as well as setting out the responsibilities of the National Land Council and its established Regional or State bodies (and Township) will enable improved land management, zoning, demarcation of categories, ESIA for land projects, acquisitions and dispute resolution. It also includes guidance on taxation. The intent is eventually to have 'one map' of the country as well as a new National Land Law – all of which would be beneficial for an industry where land is so key

Vacant, Fallow and Virgin Lands Management Law (VFV) (2012)	Purpose is to create a mechanism for citizens and domestic investors – but not foreign investors - to lease VFV lands for agriculture developments (and others)	This is relevant if land for bamboo plantations, community forestry is not formal Dep't of Forestry managed lands (RF and PPF), i.e. it applies to perceived 'empty land' and applications for use then go to the Central Committee for the Management of Vacant, Fallow and Virgin Lands CCVFV. The mechanism can be used to allocate 5,000 acres at a time, up to a cumulated 50,000 acres (i.e. increasing plots of 5,000 a.)
Farmland Law (2012)	Governs the management of land (including its sale or lease) categorised as Farmland. It has dispute mechanisms within it to adjudicate over transfer of rights providing the land has been registered	Only relevant if private land is being used for small-scale bamboo production
Environment Conservation Law (2012)	Looks at protecting the environment rather than land per se, although calls for the development of an ESIA mechanism to mitigate environmental or social impacts relating to projects in the natural resource sector	Could ensure that potential large-scale bamboo projects utilise an ESIA
Community Forestry Instruction (1995)	Intended to meet the basic needs of local communities and encourage their active participation in planting trees and to reforest degraded areas	Can apply to bamboo management as much as teak or other hard wood timbers New Community Forest User Groups (FUGs) are emerging albeit at a pace well below the target of 918,000 hectares by 2030 in the government's Forest Master Plan. (IIED, 2013)
Myanmar Forest Policy (1995)	Six 'imperatives' including: protection; sustainability of forest resources for basic needs e.g. fuel, shelter, food and recreation; efficiency to harness their full economic potential; participation of the people in the conservation and utilization of the forests; public awareness about the vital role of the forests in socio-economic development	Aims for sustainable and intensive forest management for environmental and economic prosperity as well as to contribute to the amelioration of issues holding back the sector (e.g. pricing, shifting cultivation, land use etc.). Does not mention bamboo specifically as it is a broad document looking at general blockages to sustainable forest use
National Forestry Action Plan (2001)	Outlines forestry plans to 2030/31 and how to achieve objectives of sustainable harvesting of teak, protection of forests against degradation, environmental conservation, and earn foreign exchange by exporting more value added products	Does not specifically identify bamboo within the document but applies to the sector more broadly
Myanmar agenda 21, the national code of practice for forest harvesting	The agenda aims for sustainable forest resources management, reservation, protected areas; participatory, harvesting and use; and capacity building. Part of this is the code of practice	The code of practice is not usually applied to bamboo, but the principles are also suitable for improved bamboo harvesting and management, to improve reserves. It identifies a system (The Myanmar Selection System MSS) for selective harvesting based on size, timing and ensuring that 'mother trees' are left for seeds[30]

[30] This practice is effectively is one of the recommendations for improved management of bamboo by the Technical specialist on the team Mr. Durnford Dart

Foreign Investment Law (2012)	Provides the framework for foreign investment in Myanmar including business involving the land. It allows for foreign investment in agriculture in partnership arrangements or joint ventures (Article 35). It gives foreign investors additional tax incentives and more clearly defines lists of restricted sectors[31]. Land can be leased for up to 50 years (with 2x extensions of 10 years) from government or private owners (Article 31 and 32). Longer leases are possible if it is designated as an undeveloped area of the country (Article 36)	Allows for the possibility of large foreign investment (up to 100%) in agribusiness, including bamboo plantations.
Source: Adapted from FSWG-LCG, (2012) and drawing on Kyaw Tint, Springate-Baginski, Mehm Ko Ko Gyi (2011) and Bissinger and Linn Maung Maung (2014) as well as Woods (2013).		

5.2. Key challenges associated with land

Land is the fundamental resource at the foundation of bamboo growth and use. Understanding the governance of land in Myanmar is therefore central to the political economy of bamboo, including risks associated with establishing new plantations or expanding existing ones. There are various classifications and categories of land under Myanmar law, which determines their jurisdiction and its use. These are described in the box below. From the literature review, in conjunction with Key Informant Interviews (KIIs), it is clear that there are a number of key concerns that can impact on the development of the bamboo sector and the risks associated with land, as summarised below:

- Rural land classifications do not accord with the actual land use on the ground or perceptions of its status by surrounding communities;
- Demarcation of different land categories is not always clear and often disputed;
- There is a degree of confusion on the status of land and ownership due to the number of old, conflicting laws on land classification and consequential differing and overlapping understandings and definitions which can then potentially contribute to land conflicts and tenure insecurity[32]. This can particularly impact on smallholders, women and ethnic communities practicing traditional farming practices;
- There are overlapping ministerial jurisdictions on land, particularly between the MOECAF and MOAI. For instance, management of bodies of water on forestry land is under the MOAI and provides for different types of public access;
- Formal land ownership and extent of registration at the individual and household levels are low and possibly in the region of 15%[33];
- Customary land tenure systems based on community land tenure and management systems appear to be very prevalent across the upland areas, noting that this is where some of the major reserves of bamboo are located;

[31] Jared Bissinger and Linn Maung Maung, (2014) Subnational Governments and Business in Myanmar, MDRI/CESD and The Asia Foundation, Yangon, Myanmar
[32] Food Security Working Group-Land Core group, 2012. Legal Review of Recently Enacted Farmland Law and Vacant, Fallow and Virgin Lands Management Law, Yangon, Myanmar P.9
[33] Land Core Group, 2015. Powerpoint presentation on the customary land studies in Chin and Shan States

- Existing customary land tenure and land use systems are, to date, poorly documented. Where some research has been conducted[34] there appear to be broad rules concerning community tenure and systems for allocation for household and individual use across the ethnic group with variations in practice at the community level; and

- The existing legal frameworks appear inadequate for the formal recognition and protection of customary communal land tenure rights and a new legal mechanism specifically designed for the Myanmar country context is needed (LCG, 2015)[35].

A key element running through all the research was how important the issue of access to land for bamboo growing was and whether the policy and legislation environment is supportive. Fundamentally, there are no legal barriers to growth of the sector, although there is little that *positively* articulates specific support to the bamboo sector within current policy and legislation.

Encouragingly, senior government officials have articulated informal support for bamboo development and there appears to be general support in principle. For example, members of the MBREA note that they received support when requesting land from the Forestry Department, and a long-term lease, to be made available for their bamboo plantation. Informally, the Forestry Department has also expressed intention to rehabilitate degraded forest lands using bamboo, but these 'informal policies' do not appear to be have been formalised in the literature. As a result, there is an opportunity for BIF to explore with stakeholders what policy factors would be most helpful and supportive to facilitate growth in this nascent sector. There are also ambitious formal targets for Community Forestry in the Government's Master Plan that present an opportunity for bamboo expansion under this model.

Text Box 1: Different categories of land and relevance to bamboo

Protected Public Forest Land (under the Forest Law and Protection of Wildlife and Conservation of Natural Areas Law (1994). This is for national parks and conservation areas. Communities may encroach for traditional livelihoods or where they are newly designated and there are disputes (e.g. in Tanintharyi) but this land cannot be used for formal or informal bamboo production.
Reserved Forest Land (Forest Law 1992). This category is also under the jurisdiction and management of the Forestry Department. It is protected for production of timber and forest products and can be used for Community Forestry (including bamboo) and allocated for small-scale plantations (such as bamboo). Local villages can use the reserved land for domestic purposes and production technically in violation of the Forest Law. Border demarcation is not clear and in some areas land is still used by farmers. There was a recent 'amnesty' allowing some of this land to be privatised if proof of long- term use (reportedly abused). According to LCWG existing maps do not match current use and there may be mixed informal use. For instance the bamboo community forestry area visited, was also being used temporarily by farmers while timber was growing.
Public Forest Land is under both the Forest Law 1992 and the VFV law (2012). Outside of forest estate but a forest covered area at the disposal of the Government (as all land is owned by the State). Communities use this land to harvest timber and bamboo for domestic use. According to LCWG, the MOAI may also request MOECAF to use these lands for State economic development under the VFW. Smallholders in uplands use this land for swidden agriculture.
Farmland is a classification under the Farmland Law with some sub-classifications under Article 3 for tax purposes BUT does not recognise customary land use and agricultural land practices such as 'taungya' (upland shifting cultivation). Although there may be some tenure, it can be appropriated in the interests of the nation or public.
Virgin Land – Article 2 of VFV defines it as "new land or other woodland, in which cultivation has never been done before' (LCG, p.9 2012), it may or may not be covered in forest and includes land 'cancelled legally from Reserved Forest Land, Grazing Land and Fisheries Ponds" and usually fall outside of SLRD land surveys. There

[34] See for instance Gret, 2012, LCG, 2015 on Chin and Shan
[35] Land Core Group (2015), A Summary of the National Dialogue on Customary Communal Tenure of Rotational & Fallow Taungya: Policy Brief prepared for Land Core Group, LIFT, Yangon

are mechanisms by which CF arrangements (including bamboo) can be secured for these areas. MOAI and MOECAF have overlapping authority here.

Vacant and Fallow Land – Under Article 2 of VFV law this is land cultivated before, and then ‘abandoned’ by the tenant for any reason. This creates problems as many areas being cultivated by farmers and community groups in a traditional manner could be classified as ‘vacant and fallow’.

Grazing Land - Not in mentioned in Farmland Law but briefly covered in the definition of ‘virgin land’ under VFV law.

Source: Adapted from FSWG-LCG, (2012) and drawing on Kyaw Tint, Springate-Baginski, Mehm Ko Ko Gyi (2011)

In conclusion, the actual process for obtaining land is ultimately dependent on the amount, type and location of land required as well as the connections one has in the relevant department. If it appears to be Vacant, Fallow or Virgin Land (rather than under the Forestry Department management), which may well be the case in EAO and borderland areas, then an application needs to be made to the VFV Committee, which has the power to allocate it for agribusiness. If a business makes an application to the Forestry Department for land, then they assess the vacancy and status of land under their jurisdiction and suggest an allocation. This may be a lengthy process because where the land is located is critical for the viability and economics of production. Therefore, the main risks for any proposed bamboo enterprise in this regard will depend on the area where production is proposed, and the type and scale of the intervention.

6. Informal rules and norms

This section considers the informal rules and norms that shape the practical reality of those involved in the bamboo sector. It considers the three main levels of operation for the private sector: the national level, including key stakeholders who have dominated the business environment and the control of natural resources; the intermediate level; and the township and community level within the domestic bamboo market.

The informal governance environment and actual 'rules of the game' of doing business in Myanmar often reflect aspects of culture and practice that may not be in keeping with 'modern' expectations of transparency and accountability. While often viewed within the perspective of 'unacceptable behaviour' in the West, in Myanmar they may be acceptable, expected behaviours that reflect more positive values such as respect, reciprocity or a broader distribution of resources. The findings and discussion in this section, which addresses these informal rules and norms, derive from the personal experience and knowledge of some of the respondents willing to share their understanding and then analysed by the author. It is therefore not expected to be definitive but rather suggests some explanations of why the economics of the sector at the community level were not so easy to determine with accuracy during the field trip.

6.1. National level

At the highest levels, those who may later have an interest in large-scale bamboo are the so-called 'cronies.' However, respondents considered that their interest in bamboo is not likely to be significant in the near future. The recent change in government means that, it is likely their relationships with military may continue but those with senior government may no longer be as significant. Their relationships and power, derived from personal relationships with a highly centralised government and access to large financial resources, has usually been manifested in bypassing due process and being able to obtain permits and access to large swathes of land and natural resource concessions in the mining and timber sectors, as well as land conversion projects for agribusiness[36].

In EAO controlled areas, senior leaders may also be able to grant concessions and land for plantation use and the private sector with only recourse to a very informal process (if at all). In one interview with a senior member of an EAO, he explained that the 'process' was to explain that forest resources were required to support their broader political conflict with the government, and promising to share some of the benefits at the community level. In his words, this meant wealth sharing along the lines of 'a lot of logs for the contractor, one log for us, and a sack of rice for the community'. Interestingly he also explained that any large contractor wishing to operate in areas under their control needed to gain full agreement with the Union government before they would be allowed to operate. This suggests that in the past there has been a level of collusion, even if only indirect, between influential businesses, the military and senior government.

The quasi-formal nature of interactions between State and non-State actors is demonstrated by the fact that according to Thet Aung Lynn and Mari Oye (2014) there are a large range of ethnic national actors with formal resource governance/extraction claims[37] including 20 opposition EAOs, 23 pro-government Border Guard Force Battalions (BGFs) under the Tatmadaw, thousands of government linked *Pyithu Sit* or 'People's Militia' (similar to BGFs) and finally 'Leading bodies' of Special Administered Zones and Divisions.

[36] Woods, 2013
[37] Note that these are clearly not bamboo, but it is interesting to note the relationships between the EAOs and the central government over resource extraction in general

Under a new government it remains to be seen whether or not these types of practice are likely to continue, but the risk to the bamboo sector is likely to be low until there is a clear, profitable and successful business case and model to pursue.

6.2. State, region and township levels

At the township level the 'rules of the game', as at the higher levels, are heavily conditioned by relationships between different stakeholders - particularly between the Forestry Department and the private sector. The areas in which this impacts on the bamboo sector are in the licensing, extraction and transport areas of the value chains (see Annex 1 for full overview of the value chain).

The Forestry Department initially provides a permit to a business to extract a certain number of poles from an area of Public Forest Land (PFL) or Reserve Forest Land (RFL). This permit also specifies the size and species to be extracted. The cost of the licence in practice, according to one informed stakeholder and off the record, may be as much as twice the formal price due to petty corruption, although this is likely to vary considerably. The location or area over which the rights are extended is also a point of negotiation, which makes a difference to the economics of the extraction depending on the quality of the reserves and their distance from the road.

There are a number of other issues with the process from both a sustainable bamboo harvesting practice as well as a formal economic perspective. The decision on how much can be extracted from an area appears to be fairly arbitrary and decided between the two parties – an arrangement that makes formal monitoring extremely difficult. While Forestry Department staff undertake checks at the collection station, there is plenty of 'room for manoeuvre'. There may be more poles extracted than accounted for and sold within the township (to avoid cross-checking on transport numbers and tax as it appears these poles are for domestic use rather than business), and/or they may be graded as a different size to alter formal payment of royalties on the bamboo[38]. The 'numbers and size game' of bamboo harvesting is an important field of negotiation for the viability of revenues and income of all stakeholders concerned, which then may translate into inaccurate official data within the system.

Similarly, revenue collection from local bamboo cutters/traders for local use also depends on negotiations between FD staff and local cutter/traders at checkpoints. Formal permission, valid for two days, is required to transport bamboo between townships or regions (by water or road) and, in theory, if all the paperwork agrees there are no additional charges. However, in practice there are likely to be additional business costs along the transport routes, as the bamboo cutters need to pay informal 'taxes' to various departments - including FD personnel - on the highways or waterways. Crossing international borders is likely to provide a new set of costs. While the team did not explore this avenue, there are often additional stakeholders to consider near international borders such as Customs, Border Guards (in some areas), EAOs, as well as transport police and other officials[39].

The drivers for these 'informal' behaviours are difficult to change as they are primarily a combination of (i) income or cash needs and (ii) institutional demands within the Forestry Department that appear to centre on achieving revenue targets which rise each year. If Forestry personnel fail to raise revenue (formally and informally) they are effectively placing their livelihoods at risk.

Similarly, the business sector needs to make sufficient profit to survive, which creates a set of pressures that are not compatible with sustainable management of natural bamboo reserves. Thus it

[38] For each bamboo culm harvested a royalty has to be paid. There are two grades, which have different costs for the larger or smaller size, in terms of diameter, of each pole

[39] The additional costs associated with this type of trade can be significant in the experience of the author in Africa looking at cross-border trade of minerals in the Great Lakes Region. The number of additional costs, forms and checkpoints is extraordinary and increase the cost of doing business, even if the cargo being transported is illegal with possibly higher profit margins

is no surprise that this PEA found consistent feedback from stakeholders that the quality and amount of bamboo available was rapidly declining. There is also the additional increasing pressure on the overall system as increased numbers of people draw on these dwindling resources.

One trader articulated these competing pressures and incentives. His family business passed down over several generations was noticing profit margins becoming increasingly low due to the following factors:

- Cutters were having to go further to harvest good bamboo (increasing costs);
- More people were involved in the business and thus more competition;
- Costs were increasing for transport and formal costs (i.e. with FD); while
- The price at the market place was staying steady.

This particular trader considered they would only be able to continue in the business for another few years before being squeezed out. They had no other plans and also commented on the broader marketplace that there have been a number of similar businesses that started and failed, to be replaced by a new effort almost on an annual basis; another indication that margins are low compared to the costs of doing business[40]. A different trader noted that they only really made money in the transport sector of the value chain. At present, the system at township level appears to be shifting the whole spectrum towards all associated incomes along the basic commercial value chain becoming 'losers', due to its unsustainable nature and as incentives to change positively are not currently within the system.

[40] Interestingly stakeholders seemed extremely unwilling to consider the idea of expanding their roles or taking on other roles in the chain. For instance, a trader would not look at how they might take on the making of bamboo mesh. This was only a job for the migrant people

7. Conflict sensitivity considerations for bamboo sector development

Natural resource extraction, land and agribusiness have a history of creating or exacerbating conflict dynamics in Myanmar. There are a number of conflict sensitive risks for any programme or investment to consider when deciding in which areas of the country to develop commercial bamboo activity, and which particular business models to support. This section will therefore start by considering the national-level conflict risks of bamboo development across different governance environments, followed by those at the regional and local levels. It will also touch on the issue of land access as a potential driver of conflict. Finally, the three main production models for bamboo are scrutinised to examine whether there are different levels of risk associated with each of the models.

7.1. National-level conflict risk considerations for bamboo development

A prerequisite is that the development of the bamboo sector should Do No Harm wherever it is operating. This means that where possible, actors should attempt to ensure that their business does not reinforce existing conflict dynamics, nor create or exacerbate differences and inequalities between groups that can create or deepen conflict. Where possible, and in line with conflict sensitive principles, any interventions should also reinforce the positive possibility for peace.

One of the structural causes of conflict in Myanmar is the grievance held by ethnic groups in the periphery, who perceive they have not had the same level of opportunity to participate in the political, social and economic development of the country as those ‘at the centre’. At the macro-level this suggests that economic development should be conducted in a way that not only avoids reinforcing the centre-periphery divide, but also contributes to addressing this root cause. If economic and business opportunities are only benefitting the majority ethnicity and not accruing to those in the periphery, then they are still inadvertently contributing to consolidation of the divide and enabling it to be maintained. This would make the idea of supporting the bamboo sector in areas governed by EAO worth considering.

On the other hand, one has to recognise that the realities of starting up and developing a business in EAO areas is likely to be harder. Table 5 below outlines some of the pros and cons associated with the conflict sensitive, development and economic issues involved in such approaches.

Table 5: Potential costs and benefits of supporting bamboo production in contested areas

Potential costs	Potential benefits
• Greater investments of resources required from the business in negotiating and developing relationships with more stakeholders • Greater investments of resources in fulfilling bureaucratic requirements from more than one administrative system • Potentially greater costs associated with relatively poorer infrastructure and transport systems - including possible international supply chains (depends on location) • Potentially higher risks of instability and at worst, possible outbreaks of conflict putting investments at risk • Potentially higher informal overhead costs due to double payments of 'taxes' to dual (or more) administrations that may reduce profit margins[41]	• There may be higher quality natural reserves of bamboo to start with. • Locations may be strategically placed in some cases to international borders that could facilitate access to large established markets (Thailand and China) • Similarly, strategic locations could be identified that will take advantage of planned infrastructure such as the East-West Asia Highway for long term development and growth • From a development perspective, engagement with EAOs may allow opportunities for positive influence and capacity building with respect to policy, good business practice, improved economic and resource governance and management • Addresses directly a root cause of conflict in Myanmar

Importantly, engagement with EAOs assumes that it is likely to increase the chance of long-term stability and economic growth in the peripheries and greater equality of opportunity to develop; and provide an opportunity to leverage policy and practice reform in some of these areas. The assumption may not always turn out to be the case in reality.

However, there are likely to be opportunities to engage with some EAOs, who in certain cases have the appetite and political will to change behaviour while simultaneously facilitating benefits to the people living in their areas. For instance, in a discussion with a senior member of the KNU, he acknowledged that they have 'sold all the forest to fight the war' and are in need of new sources of income to maintain themselves. This led to them inviting in poorly-behaving agribusinesses, such as rubber and palm oil, with negative social and environmental consequences.

7.2. Regional and local conflict risk considerations for bamboo development

Beneath this macro-level conflict picture, it is important to consider who is potentially benefitting from the bamboo business, how they may respond to changes in the sector, and whether this could also contribute to conflict. There are two major risks involved at this level.

Firstly, there is the potential for established economic and political elites capturing resources and opportunities at the expense of others. As the opportunities for relatively fast and 'easy' profits in the forestry sector diminish with the majority of hard wood reserves having been exploited, then there may be a possible shift in focus towards the newly developing bamboo sector. The particular concern is that unscrupulous 'cronies' will spot and take advantage of the opportunity, which unwittingly

[41] This could be considerable depending on the area that one is operating in. On the one hand the business may avoid costs associated with the government if solely operating in an EAO administered area close to the border, but there may also be multiple groups such as those in the Border Guards

provides a driver for further land grabbing. However, while there were those who felt that 'cronies' were increasingly looking to diversify their economic portfolios[42] others felt that the profit margins and degree of work necessary to enter the market would not make it attractive to this group, who are more interested in more lucrative industries such as mining.

It is also important to consider local level elites who may seek to benefit at the expense of others[43]. There is a degree of inevitability to this, as it is the elites that have the money for investment in business, but it is important to ensure that interventions do not exacerbate and polarize societies without providing opportunities for a broader section of society to participate. As ever in Myanmar, this should also be considered along ethnic lines.

At the community level, the issues may be as simple as who receives the opportunities to participate in the business and earn a living. While it is a clear fundamental principle of good business to employ local people from around the location of the new business, the term 'local' can be loaded. It may be those who are living locally (but from a 'non-local' or different ethnicity), or those who are indigenous to that region. In some localities this becomes even more complex due to the impacts of conflict, where there may have been displacements and complex migration flows, as well as potential political alignments associated with particular ethnicities (or perceived to be associated). A sensible option would be to ensure that employment and training opportunities are spread across a wide range of recipients.

7.3. Access to land – conflict risk considerations

As ever at the local level access to land is a crucial issue and a potential driver of conflict. It is important that investment in the bamboo sector does not encourage the disenfranchisement of people from their land, as has been seen in other large natural resource activity in Myanmar. The 30-year Master Plan for the Agriculture Sector (2000) hopes to convert wasteland (now reclassified under VFV law) into private agribusiness (Chao, 2013), of which a proportion could be taken up by the bamboo sector[44]. The precedent in Myanmar has been that such shifts in land ownership are achieved through illegal means or by the use of force at the extreme ('land-grabbing'), or more often through an unclear legal process that permits abuse.

The broader trend on land grabbing appears to be one of decline. This perception was also agreed by respondents in the land sector, who put the decline down to increased media attention and transparency around cases, civil society advocacy and improved knowledge by citizens[45]. The concern for the bamboo sector going forward is less overt 'land-grabbing', but more likely unclear 'legal' processes, such as the allocation of land that appears to be virgin, vacant or fallow for plantations but which is in fact occupied or used by communities. Similarly competing claims or disputed demarcation of boundaries on the different categories of land may encroach on community livelihoods. The potential for conflict driven by land grievances connected to the sector is real, and the private and public sector alike should ensure the right due diligence processes are in place.

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[43] Examples were found in the community forestry sector for hard woods (Tint, Springate-Baginski, Ko Ko Gyi, 2011) and the site visited where key informants noted that those in control of the operation were not strictly speaking local community but business men who had organised the community to meet the requirements of the forestry department. While this did not appear to have created conflict, nevertheless the principle of broader community ownership was not fulfilled. This was later also confirmed in discussions with ECCDI who suggested that the example visited was a pilot for bamboo community forest but not yet the 'ideal model'

[44] Note that this is then NOT under the jurisdiction of the Forestry Department

[45] One example that the author came across was close to Kutkai where an attempted grab of 60,000 hectares was prevented through a large community advocacy effort

7.4. Conflict risk considerations for different scales of production

It is also important to consider the conflict risks connected to different scales of bamboo production, to support the decision making on which model of production to support. Table 6 gives an overview of the three most significant modes of production – Large Scale, Small Scale and Community Forestry – the nature and severity of potential conflict issues connected to them, and potential mitigation approaches for developpers to consider.

Table 6: Potential conflict risks for bamboo production systems

Scale of Production	Primary potential conflict stakeholders	Possible Land Category	Conflict Issue	Level of Risk for Bamboo	Mitigating approach
Large scale bamboo plantation	• Community Vs. Corporate • Corporate Vs. • EAG • Military Vs. Corporate Vs Community	RFL PFL VFVL	• Displacement • Destruction of land under cultivation or traditional use • Clashes with Customary Tenure • Border demarcations • 'Inaccurate' or clashes between classification of land and actual land use	High (Land is rarely 'empty')	• Due Diligence on whether land is 'empty', or registered, has customary status is under use. Simply because it is categorised by Forestry Department does not mean that this is what is happening on the ground • Ensure tri-partite consultation – government, business and communities • Set up process oriented 'serious' long-term development CSR opportunities • Consider Cultural and livelihood impacts • Undertake an Environmental & Social Impact Assessment
Small scale plantation	Community-Corporate Community-Community	RFL PFL VFVL FL	• Displacement of communities; formal or informal • Destruction of land under cultivation or traditional use (may be fallow as well), e.g. graveyard and ancestral land • Clearing of forest in use by community • Granting of concession to plantation on area overlapping with community forest • Exclusion or marginalisation of poor or other minority participants (e.g. women, ethnicities etc.) • Capture of benefits by elites	Medium (Due to land use on the ground differing from categorization)	• Due Diligence on whether land is 'empty', or registered, has customary status is under use. Simply because it is categorised by Forestry Department does not mean that this is what is happening on the ground • Ensure that Conflict Sensitivity principles are employed when recruiting staff or workers • Consider Cultural and livelihood impacts
Community Forestry	Community – Community	RFL PFL VFVL FL	• Capture of benefits by elites • Exclusion or marginalisation of poor or other minority participants (e.g. women, ethnicities etc.)	Medium (Communities are rarely harmonious or homogeneous)	• Ensure that Conflict Sensitivity principles are employed when setting up the governance and working mechanisms on who is participating • Ensure also that there are conflict management mechanisms built in to the governance mechanisms
Note that government authorities that may be involved if it is **Vacant and Fallow Land** include: MOAI, CCVFV, SLRD, GAD Note that government authorities that may be involved if it is **Farmland Vacant and Fallow Land** include: MOAI, CCVFV, SLRD, GAD, FAB					

8. Overall conclusions and recommendations

This section draws the report together by highlighting key conclusions from the findings and different sections of the report and exploring recommendations for BIF that emerge from the analysis.

8.1. Context and drivers of change

There are numerous diverse political economies prevalent in Myanmar and related to the geography of the bamboo sector across the country. As a result, it is essential that BIF is able to embed PEA approaches into its standard operating procedures so that as opportunities open up in new areas, it is able to adjust and take new conditions into consideration. If BIF is considering supporting a bamboo business venture, the critical aspects to be considered include:

- The status of the natural bamboo reserves and the bamboo species available within them;
- The proximity and quality of infrastructure close to the proposed bamboo production locations, or valuable export routes;
- The type of authorities in control of the different areas, and the extent of the overlapping spheres of influence from the Myanmar government and other contesting authorities;
- The poverty rates and numbers of people in poverty across different States and Regions;
- The land category and associated risks of contestation or inadvertent displacement; and
- The potential for the venture to exacerbate or ameliorate conflict.

While BIF's support is ultimately dependent on where their private sector partners and 'champions' choose to locate themselves, nevertheless the options for BIF interventions seeking to promote the sector depend on which development philosophy is the priority. A pure economic development approach might suggest supporting an intervention near Yangon while a pure pro-poverty approach would suggest Rakhine as a location. Similarly, one that intends not only to benefit the poor, but also to contribute to addressing structural drivers of inequity and conflict, would suggest locating an intervention in a conflict-affected area, possibly under EAO jurisdiction.

As a consequence, this study suggests there is an opportunity for stakeholder interested in supporting the development of the bamboo sector to explore a comparative approach between (for instance) two different types of location and political economies given the geographical locations of bamboo in some EAO areas. This approach might also provide greater equity of opportunity in peripheries, thus contributing to addressing structural macro-level conflict dynamics. A consideration of two different sites would allow:

- Development of a deeper understanding of the political economy of bamboo associated with government controlled areas and institutions in EAO controlled areas;
- Opportunities for stakeholders in EAO controlled areas, including their institutional forestry departments, to understand good practice for economic development;
- More marginalised and conflict-affected communities to benefit from the project; and
- Strategic economic locations for export development to be utilized.

Recommendation 1: Consider supporting bamboo development projects in two different political economies, underpinned by location specific PEA analyses to design context-appropriate support for partners.

8.2. Trends, key stakeholders, and factors for change

This study has highlighted the lack of systematic, detailed and accurate information on the status of bamboo reserves in different areas of Myanmar. This has been a result of a number of factors, such as potentially inaccurate formal data (encouraged by the informal 'rules of the game'), inability to access conflict-affected areas, lack of technical expertise and perhaps, most significantly, lack of attention on the sector. This means that for the longer-term development of sustainable bamboo sector development, an inventory of bamboo reserves needs to be undertaken. This mapping could be undertaken incrementally, as opportunities present themselves in a particular geography. As part of the location-specific PEA (mentioned in Recommendation 1) appropriate partner stakeholders could be identified to conduct the inventory[46].

Recommendation 2: Look for opportunities when supporting new ventures to undertake a formal inventory of bamboo reserves in that area.

The PEA also suggests that community reserves are currently not sustainable sources of bamboo for a growing sector, due to low quality and excessive harvesting pressure. A secure supply of bamboo is a minimum requirement for the success of any bamboo sector venture. Given this need, there is potential to develop different managed source models simultaneously and assess their relative pro-poor reach and success. As noted, there are three strong basic production models[47] (large, small plantations and CFE) that could be tested to evaluate the extent of opportunities they provide for poor people. The various risks associated with the development of a large-scale plantation, including land conflict, would tend to exclude it at this stage and instead suggest that the best options are a small plantation model and/or a Community Forestry Enterprise model. An additional, possibly optimum, option may be to combine the small plantation model and supplement it with a Community Forestry Enterprise approach simultaneously in one supply chain. This would:

- Enable a comparative assessment of the pro-poor success in each model in terms of employment. Both the small plantation and the CFE models should increase the participation of local rural communities in the bamboo economy by increasing access to resources (CFE), improving the quality of the resources (CFE), and providing a reliable source of income (both);
- Encourage sustainable management of bamboo reserves by local communities. Technical advice from the company can ensure basic reserves (in addition to the plantation source) are managed properly and sustainably. The current 'free-for-all' use of natural reserves cannot be controlled sufficiently nor is it possible to change the behaviours of all participants in the system without 'ring-fencing' the resource. The CFE allows for training the community on proper management techniques as well as how to utilise their stands for both poles and bamboo shoots and diversify their incomes without putting bamboo quality at risk;
- Provide opportunities for partnerships with local Forestry Department and civil society actors for development of the community forestry enterprise component;
- Grow a quality supply chain also benefiting local markets (e.g. bamboo shoots) through the different value chains while simultaneously developing export business models; and

[46] Care would need to be taken to ensure that any partners chosen was acceptable to all authorities present in that area
[47] Family plantations is not included here as respondents suggest that it does not appear to be so extensive

- Improve relationships and transparency as well as mitigate risks of conflict between local communities and businesses for the following reasons:
    - The combination of approaches addresses a key concern of business owners; a consistent supply chain if solely reliant on community forestry for raw supplies. In addition, it draws on natural reserves while the plantation is growing and later provides an additional source to enable flexible expansion of processing production;
    - The CFE also addresses community fears of exploitation and total reliance on one business, as it places control of some of the resources firmly in their hands enabling them to sell a quality product to other markets if they wish; and
    - It may create some stability in transparency and accountability along the value chains that positively influences the system as a whole, impacting positively on incomes, particularly if certification is considered from the outset.

Recommendation 3: Consider supporting the development of a mixed-model small plantation and Community Forestry Enterprise bamboo production system.

It is clear from the research that in addition to those who could receive direct support from BIF, there is a range of stakeholders in the bamboo sector who would encourage BIF in supporting sustainable growth in the bamboo sector. This provides an opportunity for the development of positive relationships to leverage change, and create a broader momentum around the development of the bamboo sector. Examples of such partnerships could be as follows:

- With the Forestry Department to assist them to meet Community Forest (CF) targets[48] and develop new models of sustainable bamboo management;
- With EAOs to create opportunities for positive influence on governance behaviours and attitudes, pro-poor development that is sensitive to community cultural and social systems; and
- With Civil Society in several areas including:
    - The development of strong community forestry and private-public partnerships;
    - Dissemination of new technical approaches for small-scale sustainable bamboo management;
    - Key bamboo-sector policy development; and
    - The development of greater transparency in the sector to set new standards, e.g. establishing industry ‘watchdogs’; drawing in FLEGT and other certification opportunities, developing accountability mechanisms within the Forestry Department, establishing multi-stakeholder oversight, etc.

Recommendation 4: Consider developing a ‘Stakeholder Partnership Strategy’ that identifies strategic partners to support sustainable, pro-poor growth in the bamboo sector. This could potentially lead to establishing a multi-stakeholder ‘Bamboo Forum’ that brings interested parties across sectors (i.e.

[48] The government has ambitious targets aiming to expand existing CF areas from 421.4 km^2 to 9,180 km^2 under CF in their 30 year Master Plan for the Forestry Sector. Source: Kyaw Tint et al. 2014

government, civil society and private sector) together to share experience and develop collaborative initiatives. There may be an opportunity to inform and develop policy through the Rattan and Bamboo Entrepreneurs Association[49] and/or other interested actors, although these would need to be subject to due diligence and a proper capacity assessment, recognising that many of the organisations are relatively young and untested[50].

8.3. The policy environment

There are a large number of relevant policies and legislation that have a bearing on the bamboo sector. The majority are not specific in their application to bamboo and as such do not appear to pose a barrier to the development of the sector. While there is clearly room for the development of the bamboo sector under existing legislation, nevertheless within the current policy space there are no clauses that are specifically and intentionally pro-bamboo. This presents an opportunity for like-minded stakeholders to develop specific pro-bamboo policy options as well as an accompanying government engagement plan for the Forestry Department and MOECAF.

Recommendation 5: In collaboration with other key stakeholders, identify appropriate changes to policy and legislation that would encourage and support bamboo development.

Given the lack of knowledge and information on the bamboo sector and its potential positive impact on development, this suggests an opportunity to develop a useful learning agenda alongside the BIF intervention. While requiring additional funding, stakeholders could include the University of Forestry and others, with support as required from appropriate international academic institutions and civil society. Potential areas for further research could include:

- The efficacy of mixed cropping systems for bamboo and timber on slope stabilisation, erosion prevention and encouraging sustainable land use;
- The longer term environmental impacts from growing the bamboo sector;
- Comparative assessments of pro-poor economic benefits from production models and combinations such as community forestry models alongside small plantations, etc.; and
- Exploring potential positive implication for governance and policy development from working with non-State actors such as EAOs on economic growth models.

Recommendation 6: Consider the development of a dedicated Research & Learning Agenda, with related funding, focused on connections between bamboo and pro-poor, sustainable economic growth.

8.4. Informal rules and norms

At all levels the informal political economy is shaped by relationships, patronage systems and a lack of transparency and accountability. At the community level, this opaqueness means that the details and economic realities of bamboo value chains are difficult to grasp. The behaviours that drive this situation are extremely entrenched, both within Region/ State level institutional behaviour, and their connection to the fundamental livelihoods of the stakeholders involved. This means that they will be extremely difficult to shift, requiring approaches that address long-term attitude and behaviour change. In summary this requires a holistic systemic approach that is beyond the scope of the BIF

[49] https://www.facebook.com/pages/Myanmar-Rattan-and-Bamboo-Entrepreneurs-Association/778791782145599
[50] These assessments would be similar to those that are undertaken by BIF in working with any partner that receives funding, although are probably even more important for umbrella bodies contributing to policy etc.

intervention. Nevertheless, there are several areas that could assist in setting the tone of the sector and changing the 'rules of the game' as it develops, particularly in the light of the new government and its momentum for change:

- Embed transparency and accountability practices in all dimensions of the sector, particularly at the township and State level. This could include the development of simple anonymous feedback mechanisms for the community to report unfair practices, biases, conflicts or injustice within the small plantation or CFE models;
- If the mixed CFE/small plantation model is taken forward, then BIF may consider using this as the basis for an appropriate State or Regional multi-stakeholder forum (including the possibility of newly elected NLD members if appropriate) for bamboo stakeholders that could serve as the focal point for addressing (i) conflicts arising from bamboo development or business organisations practices and resolving them (ii) a semi independent monitoring mechanism for certification (iii) publishing semi-independent information on commercial bamboo production levels; and
- Develop systems of accurate public reporting on bamboo production levels and costs that provide a basis for comparative analysis with State or Region FD figures.

Recommendation 7: Consider the development of a component that embeds accountability and transparency in the sector – a 'Bamboo Transparency Initiative' to influence the current 'rules of the game'.

8.5. Conflict sensitivity and risks for bamboo sector development:

Due to the complex and conflict-affected nature of the Myanmar context, the possibility to inadvertently 'do harm' is high in some areas of potential bamboo development. It is therefore critical to apply a conflict sensitive lens when considering supporting business initiatives operating in *all* locations, to minimise potential failure as well as ensure broader risk mitigation. Moving from the macro to the community level, the key risks of doing harm revolve around the following aspects:

- The political governance systems in that area;
- Which of the three main bamboo production systems is being considered;
- Potential land conflicts deriving from ambiguous classification, ownership, tenure and customary use; and
- Inequitable access to resources and the benefits accruing from them (e.g. training, jobs, opportunities).

To ensure that BIF is choosing to support bamboo-sector ventures that do not exacerbate conflict, and supporting those private sector actors to avoid and ameliorate conflict in the long term, it should consider:

- Undertaking a deeper context analysis in any location being proposed for support, with a detailed exploration of conflict dimensions;
- Develop in collaboration with partners' sound bamboo private sector due diligence processes to ensure land is not disputed, or under (or perceived to be under) different usage and tenure;

- Establishing codes of conduct, protocols guiding responsible private sector interactions with communities, government and other stakeholders, (e.g. through the use of environmental and social impact assessments);

- Encouraging long-term Corporate Social Responsibility (CSR) approaches in the bamboo sector;

- Developing best practice conflict sensitive practices for use by all actors in the bamboo sector (e.g. for recruitment, CF governance and participation mechanisms, etc.); and

- Embedding PEA approaches into BIF operational mechanisms to enable context appropriate facility support to be provided to partners.

Recommendation 8: Develop a series of best practice conflict sensitive approaches and tools adapted to the needs of the bamboo business sector, both for its own and its partners' use.

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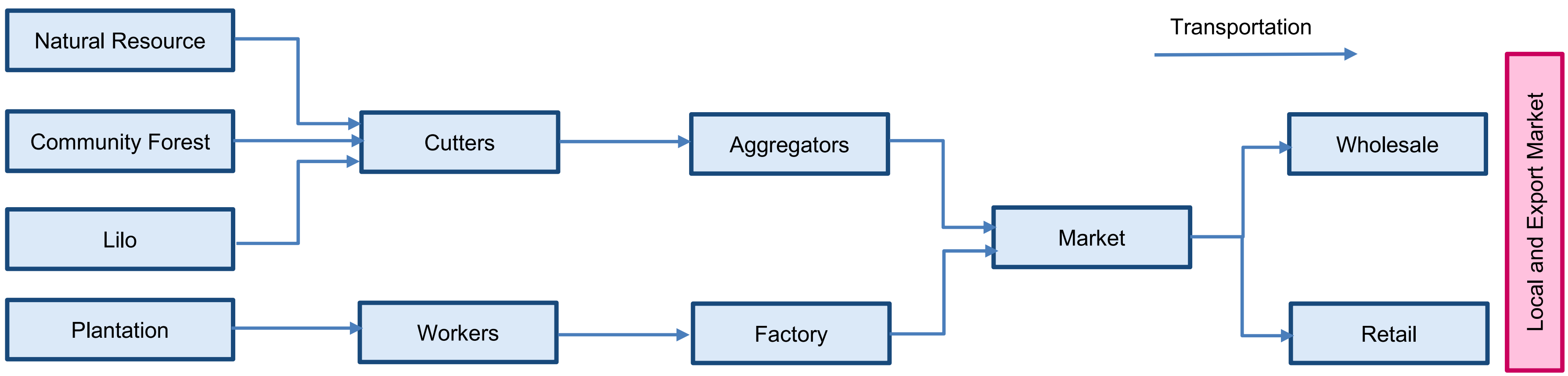
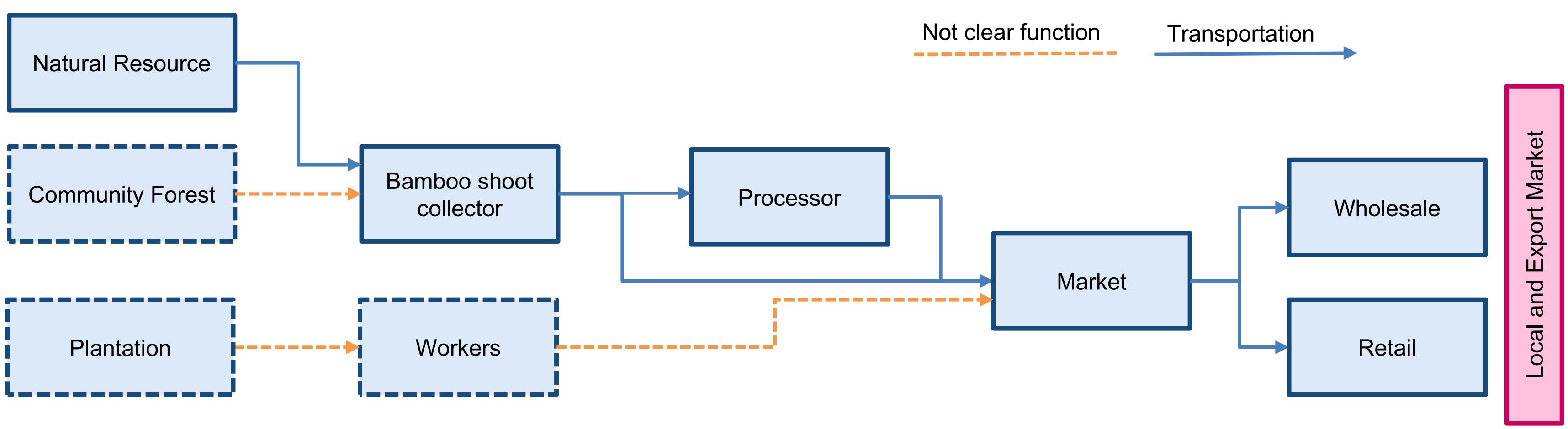
Annex 1: Bamboo value chains

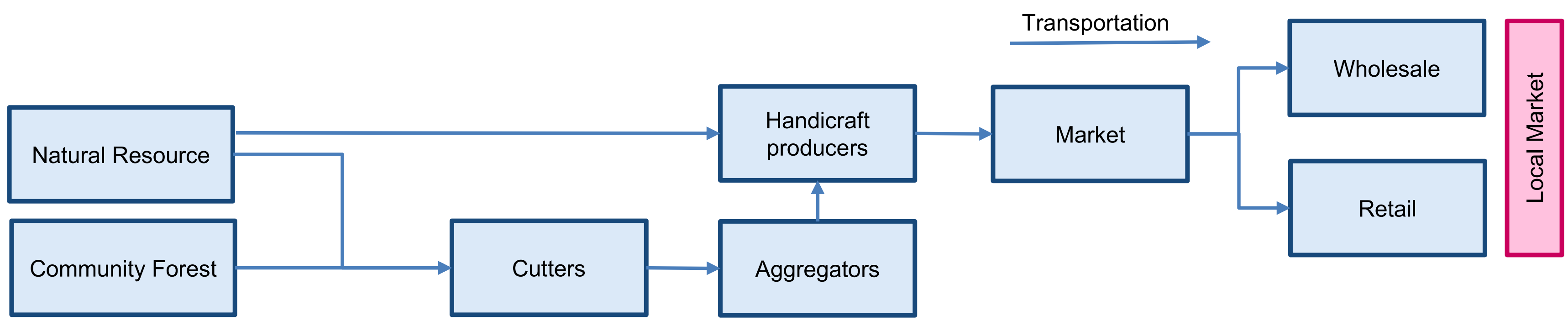
Bamboo timber value chain:



Bamboo shoot value chain:



Bamboo handicraft value chain:



Annex 2: Showing the relationship between Union-Level Government and State-Level Government

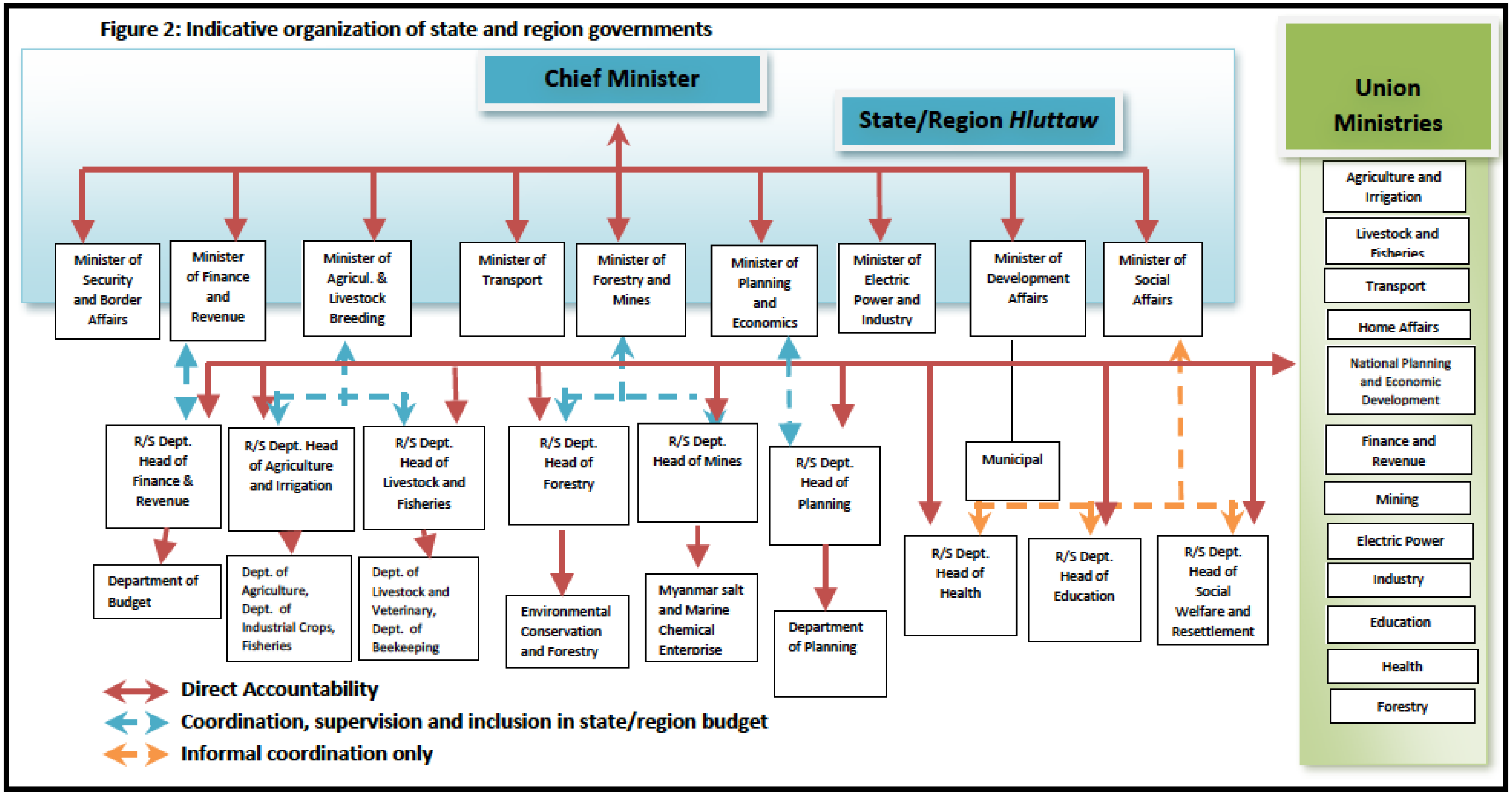


Figure 2: Indicative organization of state and region governments