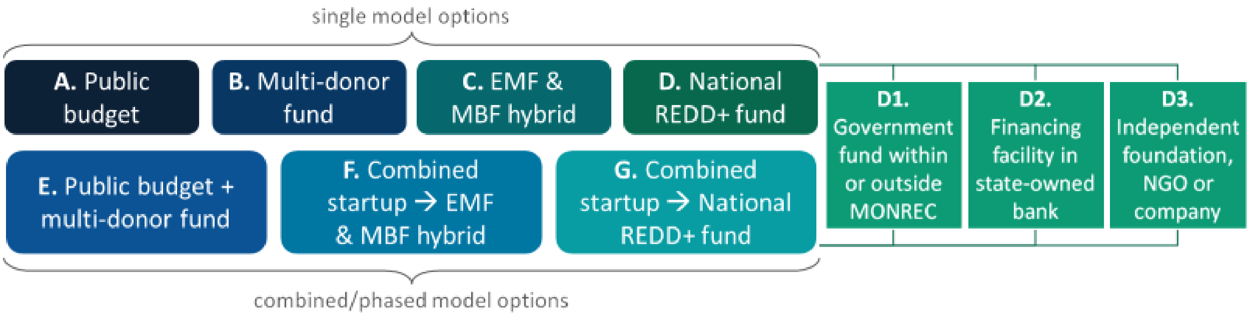
MYANMAR: scoping of REDD+ finance management context, options and roadmap for implementation

April 2019

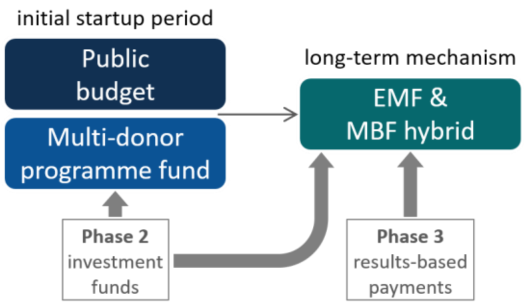
Executive summary

A model for REDD+ finance management

Seven overlapping options for REDD+ finance management in Myanmar were considered, comprising four single and three combined/phased models involving public budget, a multi-donor programme fund, the existing/emerging Environment Management Fund (EMF) and Myanmar Biodiversity Foundation (MBF) and a new national REDD+ fund.



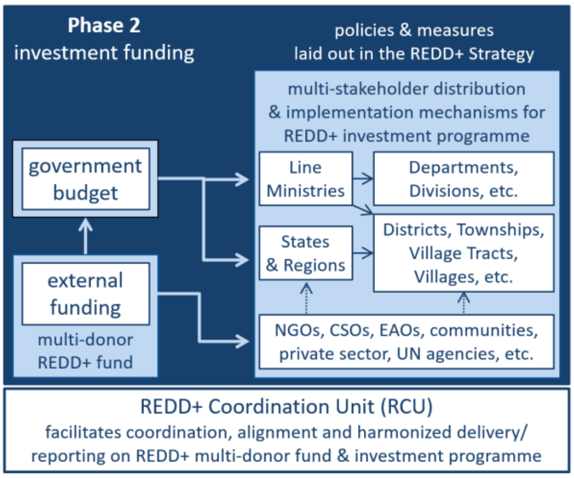
A consultative process was undertaken to review and discuss these options, involving stakeholders from both within and outside government. Following the advice and recommendations of the REDD+ Technical Working Group, the National REDD+ Taskforce concluded at their 7th meeting, held on 9 April, that a combined and phased approach (option F) would be the most feasible option (Figure 11). Initially, the public budget and a multi-donor programme fund would be used to manage inflows of phase 2 investment funds. Over the longer-term, this would transition to a model based on using the Environment Management Fund (EMF) and Myanmar Biodiversity Foundation (MBF) to administer phase 3 results-based payments.



Next steps in developing the REDD+ finance management system

A very first next step is to determine what Myanmar's REDD+ funding needs and financing requirements are, and to communicate this to concerned stakeholders and potential donors. In brief, this requires that a 'REDD+ investment programme' is developed over the next 6 months, to supplement the REDD+ Strategy.

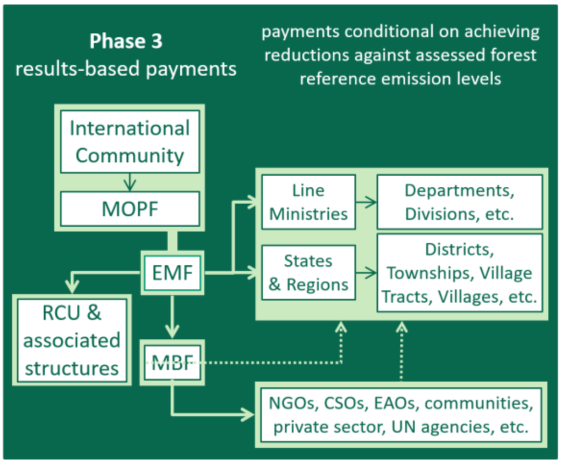
The selected finance management option for phase 2 funding combines the public budget with a multi-donor REDD+ programme fund. Most of the steps involved in planning for phase 2 implementation should be carried out over the next year, so as to prepare for investment funds to be received from 2020 onwards.



Next steps in developing the Phase 2 finance management system:

1. Develop REDD+ investment programme
2. Design and agree RCU functions, governance structure, organizational set-up, staffing, etc.
3. Elaborate RCU role and responsibilities in multi-donor REDD+ fund coordination and fundraising
4. Secure cabinet approval for REDD+ strategy, RCU and associated budget allocation
5. Facilitate integration of REDD+ PAMs into sectoral budgets and work programmes
6. Convene external donor roundtable to market REDD+ investment programme
7. Prepare and follow-up on REDD+ funding proposals
8. Undertake capacity and awareness-raising on sustainable financing options and needs among RCU, REDD+ taskforce and sectoral line agencies

The focus of phase 3 finance planning over the next 1.5 years is on ensuring that the EMF and MBF are designed in such a way as to be able to receive and administer REDD+ results-based payments.



Next steps in developing the Phase 3 finance management system:

1. Determine needs and options for establishing EMF and MBF as designated REDD+ finance management structures
2. Consult further with EMF on integration of REDD+ fund management
3. Consult further with MBF on integration of REDD+ fund management
4. Develop a viable contingency plan for the management of phase 3 results-based payments

Timeline for further actions

	2019			2020			
	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Next steps in developing the Phase 2 finance management system							
1. Develop REDD+ investment programme	■	■	■				
2. Design and agree RCU functions, structure, organisation, staffing, etc.	■						
3. Elaborate RCU role & responsibilities in multi-donor REDD+ fund		■	■				
4. Secure cabinet approval for REDD+ strategy, RCU and budget		■	■	■	■	*establish RCU*	
5. Facilitate integration of REDD+ PAMs into sectoral budgets				■	■		
6. Convene external donor roundtable				■			
7. Prepare and follow-up on REDD+ funding proposals					■	■	■
8. Undertake capacity and awareness-raising on sustainable financing	■	■	■	■	■	■	■
Next steps in developing the Phase 3 finance management system							
1. Determine designation of EMF & MBF as REDD+ finance structures	■	*develop REDD+ finance regulation/procedure*					
2. Consult further with EMF on integration of REDD+ fund management	■	■	■				
3. Consult further with MBF on integration of REDD+ fund management	■	■	■				
4. Develop a contingency plan for the management of phase 3 payments	■	■	■				

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List of Acronyms

ASEAN	Association of South East Asian Nations
CBM	Central Bank of Myanmar
CSO	Civil society organisation
DACU	Development Assistance Coordination Unit
DAO	Development Affairs Organisation
DAP	Myanmar Development Assistance Policy
EAO	Ethnic armed organisation
ECD	Environmental Conservation Department
EMF	Environmental Management Fund
FERD	Foreign Economic Relations Department (of MOPF)
FFI	Fauna and Flora International
FTB	Foreign Trade Bank
GCF	Green Climate Fund
GDP	Gross domestic product
GEF	Global Environment Facility
LIFT	Livelihoods and Food Security Trust Fund
MADB	Myanmar Agricultural Development Bank
MBF	Myanmar Biodiversity Foundation
MEB	Myanmar Economic Bank
MICB	Myanmar Investment and Commerce Bank
MMK	Myanmar Kyat (at the time of the report, approx. MMK 1,600 = USD 1)
MOALI	Ministry of Agriculture, Livestock and Irrigation
MONREC	Ministry of Natural Resources and Environmental Conservation
MOPF	Ministry of Planning and Finance
MTE	Myanmar Timber Enterprise
NDMF	Disaster Management Fund
NE5C	National Environment and Climate Change Central Committee
NGO	Non-governmental organisation
NWCD	Nature and Wildlife Conservation Division
ODA	Official development assistance
PAM	(REDD+) policy and measure
PES	Payments for ecosystem services
PID	Partners in development
RCU	REDD+ Coordination Unit
REDD	Reducing emissions from deforestation and forest degradation
SEE	State economic enterprises
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UN-REDD	United Nations Programme on Reducing Emissions from Deforestation and Forest Degradation
USD	United States Dollar (at the time of the report, approx. MMK 1,600 = USD 1)
WCS	Wildlife Conservation Society
WWF	World Wide Fund for Nature

1. REDD+ finance background & characteristics

Introduction to the report

The objective of the current assignment is to work with key partners and stakeholders to scope, select and refine a model for the national management of REDD+ finance. It is being carried out as Myanmar's REDD+ phase 1 'readiness' activities come to a close, in preparation for phase 2 and 3 implementation. The development of a financial framework and mechanism is seen as a key activity, including 'appropriate financial management mechanisms that can deal with the multiple sources and ensure that funds get to the intended beneficiaries' and 'the possibility of a new and dedicated REDD+ Fund' (UN-REDD 2013).

The report analyses national REDD+ requirements and priorities as well as public financial management processes and procedures in Myanmar, and summarises international experiences, best practices and lessons learned in the development of REDD+ finance mechanisms. Based on this review and on a consultative process carried out with key stakeholders, it identifies a shortlist of options for REDD+ finance management in Myanmar. The report then goes on to lay out an implementation plan for the option selected by the REDD+ Task Force.

To these ends, the current report contains six chapters and a reference list:

Chapter 1. Defines **REDD+ finance background and characteristics**, including sources and components, key stages of the financing chain, and national goals and priorities;

Chapter 2. Describes **public financial management processes** in Myanmar;

Chapter 3. Reviews **experiences, insights and lessons learned from other countries**;

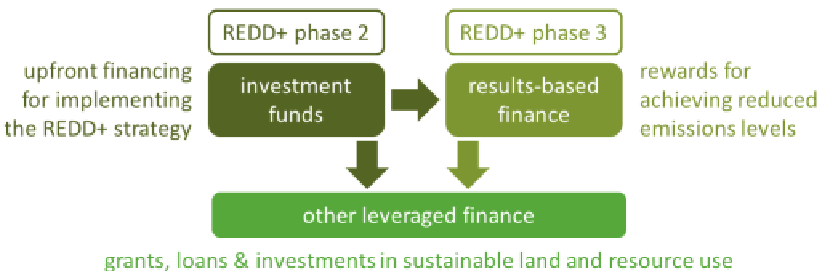
Chapter 4. Suggests a **shortlist of potential REDD+ financial management options**;

Chapter 5. Identifies **enabling financial conditions and supplementary incentives** that would serve to support REDD+ activities and encourage the fair and equitable sharing of benefits; and

Chapter 6. Outlines **next steps in developing a REDD+ finance management system**, including roles, responsibilities, timeline, levels of effort, needs for consultation, capacity-building and recommended actions for risk mitigation.

Sources of REDD+ funding

Figure 1: REDD+ funding sources



Three main types of REDD+ funding are envisaged for Myanmar: investment funds, results-based payments and other leveraged finance (Figure 1). The options for national REDD+ financial management that are presented in the current report mainly focus on the first two, but look to models which also have the potential to encourage and (where appropriate) absorb and administer leveraged finance.

During REDD+ phase 2, **investment** funds will be sought to provide the upfront financing that is required to support the implementation of the National REDD+ Strategy, before emissions reductions can be achieved (for example to build capacity, develop and transfer technology, implement policy measures and conduct key on-the-ground activities). Although these policies and measures (PAMs) have not yet been fully-defined or costed, they will likely be both substantial and wide-ranging.

For this reason, investment funds will need to be sought from a variety of different sources. It will be important to build up a funding portfolio that is both large enough to meet the projected costs of REDD+ implementation and diverse enough to cover the wide range of actions and groups that are involved in this, as well as to be stable, predictable and spread risk. The government of Myanmar will provide core funding, from existing and new budget allocations and public programmes in the forest sector as well as through the possible development of new financial instruments (such as budget realignment, revenue-sharing and fiscal earmarking). Funding from bilateral and multilateral donors, development banks and other international organisations will also be mobilised, on a grant and possibly loan basis. Ideally, some level of investment funds can also be expected to be generated via private flows, for example to forest conservation and restoration, and associated technology, equipment and infrastructure.

During REDD+ phase 3, Myanmar is expected to quality for **results-based payments** from the international community. This will of course be contingent on REDD+ actions being in compliance with the requirements of the UNFCCC’s Warsaw Framework as well as the so-called ‘Cancun safeguards’. Unlike phase 2 investment funding, which is based on covering the implementation costs of specified activities, results-based payments will be conditional. They will only be provided if results are achieved in terms of reductions against the assessed forest reference emission level, most likely on a largely *ex-post* basis. Another difference is that payments will be released at the national level. It will then be the responsibility of the government to work out how, to whom and for what the funds will be allocated and disbursed.

Funding for results-based payments is expected to be derived from the international community, although as yet there is little certainty about the exact sources or amounts that will be involved. The Green Climate Fund (GCF) offers one likely mechanism, assuming that the current pilot programme for results-based payments is extended beyond its current end date of 2022. In addition, they would be expected to serve to leverage additional finance for sustainable land and resource use activities – for example from private sector financing and associated grants and concessional loans (World Bank undated).

Components of REDD+ financing

The **funding** described above forms an important component of REDD+ financial resources. Cash (and, in some cases, in-kind) support is required to pay for REDD+ activities and deliver REDD+ outcomes in both phase 2 and phase 3. For example, it will be necessary to cover the salaries of MONREC staff, buy equipment, print education and awareness materials, carry out forest restoration, conduct on-the-ground forest monitoring, and pay for training and inputs for farmers living in forest-adjacent areas.

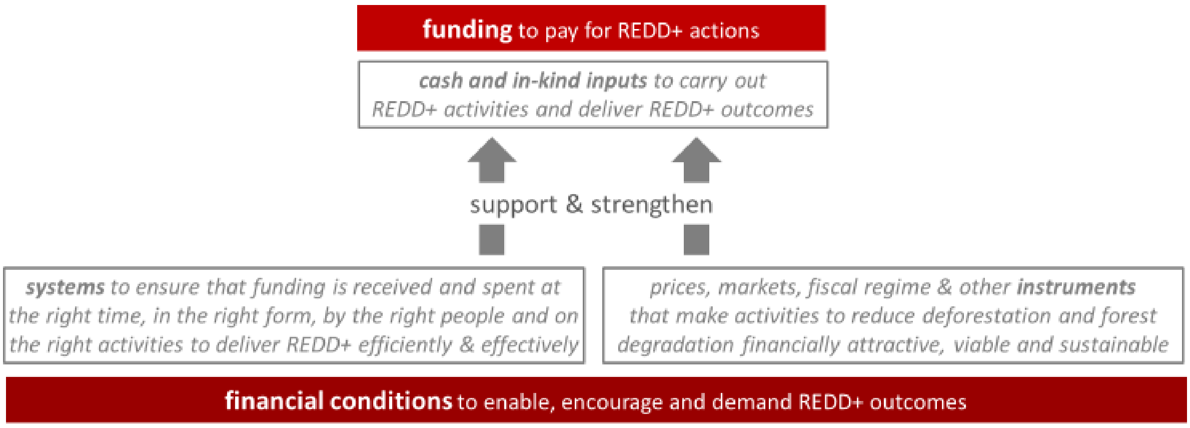
Yet, although adequate funding is undoubtedly necessary to ensure that REDD+ PAMs are implemented, by itself it is unlikely to be sufficient. There are other important financial constraints to reducing forest degradation and deforestation, and to achieving REDD+ outcomes. REDD+ financing also requires that these **broader financial conditions and drivers** are addressed. This has two aspects: setting in place systems to ensure the effective administration and delivery of REDD+ finance, and providing an enabling financial environment and incentives for forest land and resource users.

On the one hand, it is important to build in **systems** to ensure that funding is received and spent at the right time, in the right form, by the right people and on the right activities to deliver REDD+ efficiently and effectively. However much funding is available, if it is not aligned with priority activities to address deforestation and forest degradation or channelled to the groups and agencies that bear the costs of undertaking them, it will likely have only limited impact.

At the same time, REDD+ financial resources also include **instruments** to create the conditions under which activities to reduce deforestation and forest degradation will be financially attractive, viable and sustainable. In many cases it currently remains more profitable, or cheaper, for producers, consumers and investors to over-exploit, convert or otherwise degrade forest lands and resources than to manage them sustainably. One important reason for this is that prices, markets and fiscal regimes often serve to encourage activities that impact negatively on forest status, or fail to reward sustainable forest management. Examples include perverse subsidies to land uses which are based on converting forest land or over-exploiting timber resources, relatively higher tax rates on 'green' technologies and equipment, or weak prices and markets for sustainable forest products and enterprises.

Designing a REDD+ finance management system therefore requires considering at least three different components of financing (Figure 2). These are: managing sufficient funding flows, operating effective financial planning and administration systems, and setting in place financial instruments to stimulate positive behaviour change. The primary focus of this report is on funding flows and financial systems. It will however also draw some broad conclusions about the kinds of financial instruments that can be used to stimulate behaviour change among forest land and resource users, and influence production, consumption and investment patterns in the sectors that depend or impact on forest cover and quality.

Figure 2: Components of REDD+ financing



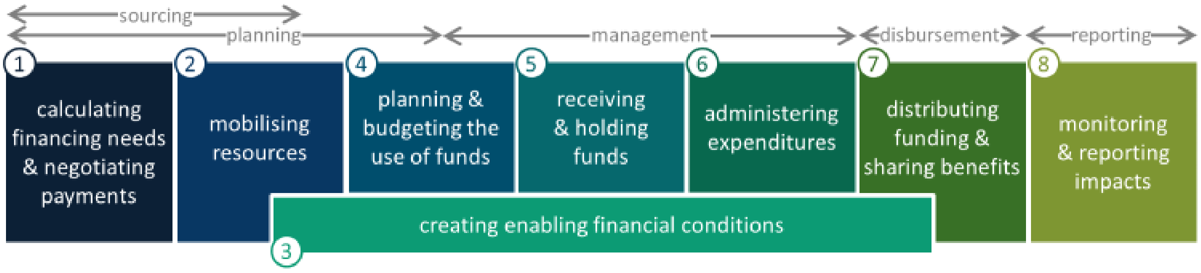
Stages in REDD+ financial management

'**Financial management'** is usually taken to refer to the various tasks involved in handling the financial resources that are needed to operate a particular process or accomplish a specified set of objectives. It also implies setting in place the structures and procedures to ensure that these tasks are accomplished in an efficient and effective manner, and with due probity.

Financial management needs will of course vary, depending on the processes and objectives that they aim to support. The main concern is to come up with a system that is **fit for purpose**. In the context of the current assignment, this purpose is to manage REDD+ finance in such a way as to deliver national goals and priorities, in line with stated international commitments and requirements. The ultimate objective is to reduce emissions from deforestation and forest degradation.

There are thus a number of stages (and tasks) in the **REDD+ financing chain** (Figure 3). These range from calculating financing needs, negotiating payments and mobilising resources, through planning and budgeting for their use, receiving and holding the funds generated, disbursing payments and other benefits, creating enabling financial conditions, to monitoring and reporting on how and to what ends or impact the financial resources have been used and delivered.

Figure 3: Stages in the REDD+ financing chain



The current assignment is primarily concerned with stages 4, 5 and 6. It seeks to identify the structures and systems that would be capable of receiving, holding and administering REDD+ financial resources in an effective, transparent and equitable manner. It has a secondary, broader focus on stage 3, and proposes approaches and principles that would serve to provide broader enabling financial conditions and incentives, and promote the fair and equitable sharing of benefits.

Stage 7 is key to REDD+ implementation and delivery. It should however be noted that it lies outside the scope of this assignment to identify the specific channels or mechanisms by which funds will be distributed or benefits shared at the sub-national and stakeholder level. These are separate tasks. Likewise, the sourcing, planning and reporting involved in stages 1, 2 and 8 are of course vital to delivering REDD+, but relate more to ancillary or supporting procedures and processes that govern the operation of these financial management structures and systems. They are subordinate to, and to a large extent defined by, the choice of financial model, but require separate attention – probably at a later stage, once a preferred REDD+ finance management option has been selected and has entered its establishment phase (see Chapter 6).

REDD+ goals and priorities in Myanmar

At the time of writing this report, Myanmar is in the latter stages of REDD+ phase 1 'readiness'. A National REDD+ Strategy has been drafted, and a national forest reference emission level (MONREC 2018, UN-REDD 2015c), forest monitoring system (UN-REDD 2015a,b) and safeguards information system (UN-REDD 2017) have been established (collectively known as the 'Warsaw Framework' elements). Various other supporting documents have been produced, including an analysis of drivers of deforestation and forest degradation (Enters 2017, Kissinger 2017), guidelines for stakeholder engagement (UN-REDD 2016), and studies on benefit sharing (Anon, undated), forest and agricultural sector financial flows (Bann and Myo Aung 2018, Bann and May Nwe Soe 2018).

Unfortunately the National REDD+ Strategy was not available at the time of writing this report. It was therefore not possible to review the identified PAMs in order to identify the main requirements for REDD+ finance, or to gauge the funding needs. It has however been suggested that phase 2 investment needs may range between USD 150-300 million. There is also as yet no model for a benefit sharing system. Existing studies do however provide important information about the drivers of deforestation and forest degradation.

This is relevant to the development of a REDD+ finance management model in so far as it describes some of the key areas, sectors and activities in which financial conditions and constraints may hinder sustainable forest management now or in the future.

The most important direct drivers of deforestation and forest degradation are cited as the conversion of forest land to agriculture (especially large-scale agribusiness concessions for rubber, oil palm, jatropha, sugarcane and cassava, as well as rice, pulses, maize and other arable crops), mining, hydropower reservoirs and infrastructure. Illegal and unsustainable exploitation of timber and fuelwood are also emphasised. While a wide range of indirect drivers or underlying causes have also been identified, three are highlighted as being of particular importance: overlapping and conflicting priorities and agendas by the forestry and agriculture sectors, undeveloped legal frameworks governing decisions on land and its management, and insecure land tenure. Although financing issues are not highlighted as a major driver of deforestation and forest degradation, they are mentioned as a barrier to the conservation of forest carbon stocks in protected areas (the '+' component of REDD+).

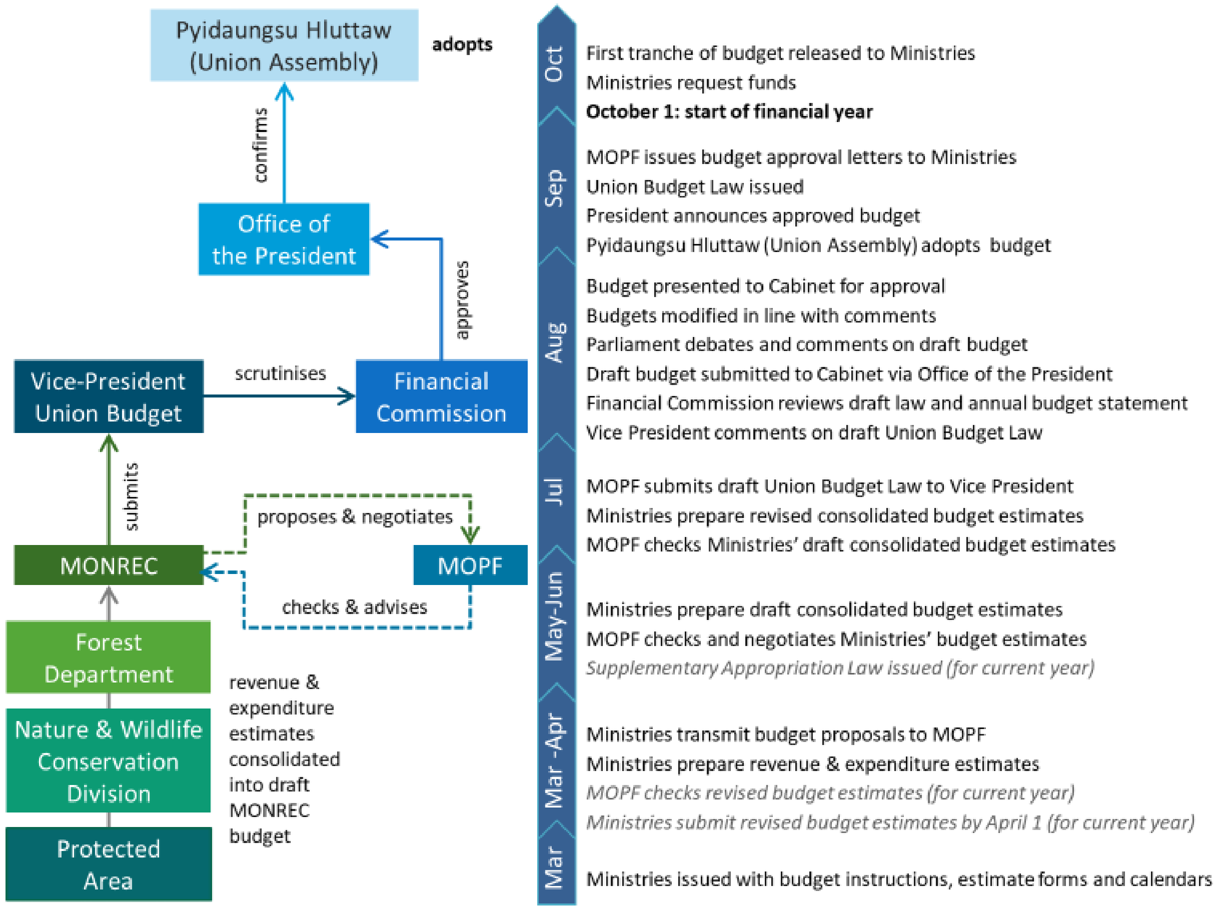
2. Public financial management in Myanmar

The Government of Myanmar oversees the national REDD+ programme, will play a key role in administering phase 2 investment funding and is envisaged as the first recipient of phase 3 results-based payments, as well as being ultimately accountable for delivering forest emissions reductions targets. Public financial management systems therefore determine what is allowable, feasible and practical in terms of REDD+ finance models. The following paragraphs summarise the budget planning, approval and allocation process fiscal management rules and procedures. They also describe a number of emerging innovations in environmental (and other) finance management which may offer synergies and opportunities for REDD+.

Annual budget planning and approval

The 2008 Constitution establishes the basic terms and conditions under which public funds are managed and administered in Myanmar, while the 2017 Regulations on Financial Management specify procedures for budget preparation, implementation, reporting and supervision, and management of the Union fund and Region/State Funds. Aside from the confirmations given in the annual laws on budget, supplementary appropriations and tax, there is currently little additional guidance and no other standalone regulations on public financial management, meaning that the actual implementation of the budget process is largely guided by prior practice (MFAR 2013; World Bank 2013).

Figure 4: Annual public budget calendar and approval process (Union budget)



(updated from Emerton et al. 2015)

The budget process follows a fixed annual calendar and decision-making hierarchy, according to clear and generally well-understood procedures, roles and responsibilities. A detailed explanation of the way in which

Union and Region/State budgets are planned, approved and allocated can be found elsewhere (see Addison et al. 2015, Asia Foundation 2014, Dickenson-Jones and Smurra 2015, Emerton et al. 2015, Joelene 2016, Lynn and Oye 2014, Oo et al.2015, Shotton et al. 2016, World Bank 2013, WWF and UNDP 2018), and so is not repeated here. The following paragraphs merely present a brief overview of the annual budget planning and approval process. This is summarised in Figure 4, which depicts the example of MONREC. Other Ministries follow exactly the same steps, while states and Regions are subject to a parallel procedure but a slightly different review and approval process (this is described further below).

In 2018, the Myanmar financial year changed from April 1 -March 31 to a new period of October 1-September 30. There has however been little or no change in the steps and milestones in the annual budget calendar, only in their timing. In March, the process of budget planning for the following financial year commences when Ministries receive budget instructions, estimate forms and calendars issued by MOPF's Budget Department. These lay out the procedures for preparing and submitting annual budget requests. Over the course of March and April, the component units (budget heads) within each Ministry prepare forward revenue and expenditure estimates. These are checked internally before being combined and progressively merged upwards into budget estimates for each Ministry as a whole. The budget estimates are checked, negotiated and adjusted between May and June, under the guidance of MOPF. By July, each Ministry's draft consolidated budget is transmitted to MOPF, where it is checked, negotiated and revised as necessary.

In August, the consolidated budget estimates are combined into a draft Union budget law by MOPF, and submitted to the Vice President for scrutiny and comment. The draft law and the annual budget statement are then passed on for review and approval to the Financial Commission. The Financial Commission acts as an oversight mechanism for the development of the budget. It is chaired by the President, and comprises high-ranking executives from both national and sub-national levels. In August, the recommended Union budget is presented to the Cabinet via the Office of the President. Parliamentary debate (and usually some modification) takes place between August and September, before the consolidated budget is eventually adopted by the Pyidaungsu Hluttaw (Union Assembly) in the third week of September.

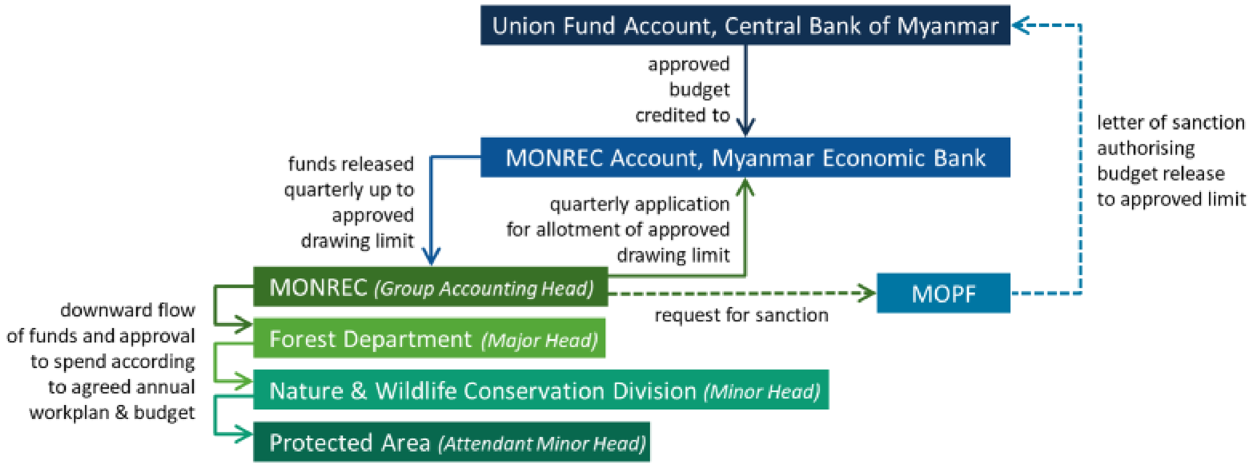
In the last week of September, the Union Budget Bill is signed by the President and becomes law. The Union Budget Law (issued annually) lays out the receipts and expenditures, reserve funds and loan procedures for Union Ministries and Departments, State Administrative Organisations, State-owned Economic Organizations and the various other agencies and committees that will receive Union funds during that year. The MOPF issues budget approval letters to Ministries on the basis of the law, in time for the start of the new financial year on October 1. During the course of the financial year, Ministries can also request modifications to their approved budget. Revised budget estimates (for that year) must be prepared and submitted by April 1, after which they are checked and approved by MOPF. In May the Supplementary Appropriation Law is issued, and these changes take effect.

States and regions follow a comparable, and to some extent overlapping, budget request and approval process. Institutions submit their budgets differently, depending on how the institution is scheduled under the Constitution. Schedule 1 of the Constitution refers to the Union Legislative List, while Schedule 2 refers to the Region or State Legislative List. Budgets are either reviewed independently by the State/Region Budget Department (Schedule 2) or consolidated at the national level by the relevant Union Ministry (Schedule 1). Schedule 2 budgets are negotiated and approved by the State or Region legislatures, while schedule 1 budgets become part of the Union budget and are approved by the Pyidaungsu Hluttaw. Whereas Union budget submissions are handled by Vice President One, Vice President Two is responsible for State and regional budget submissions.

Budget allocation and disbursement

After the Budget Law has been passed and MOPF has issued approval letters, Ministries (and States and Regions) may request the first tranche of their annual allocation at the beginning of October. Budget disbursements are made on a quarterly basis, and pass through a series of stages of approval and release. These are summarised in Figure 5, which depicts the example of MONREC[1].

Figure 5: Annual public budget disbursement process (Union budget)



(updated from Emerton et al. 2015)

Once their budget is approved, Ministries can request MOPF to issue a letter of sanction authorising the approved budget amount to be released from the Union Fund account at the Central Bank of Myanmar (CBM). The funds are then credited to the ministry's account at the Myanmar Economic Bank (MEB). The MEB provides a retail banking service to government bodies (inlcuding states and Regions). It is one of four state-owned banks in Myanmar (the others are the Foreign Trade Bank (FTB), Myanmar Agricultural Development Bank (MADB) and Myanmar Investment and Commerce Bank (MICB)).

Drawing limits are specified which give ministries rights to spend up to a certain predetermined level, according to their approved annual budget. Each ministry must make an application for the allotment of their approved drawing limit for the coming quarter. This amount of funding can then be drawn down from the ministry's account at MEB over the course of the quarter. Ministries are the budget holders or recipient of funds from the Union budget (the Group Accounting Head, as laid out in the 2017 Regulations on Financial Management) and are ultimately accountable for managing and reporting on spending. Within each ministry funds cascade downwards via an internal allocation process[2], with approval to spend being granted according to each unit's agreed annual workplan and budget.

Fiscal management rules and procedures

Although public financial management still remains fairly centralised in Myanmar, it should be noted that considerable reforms have been effected over recent years, and continue to be ongoing (see Asia Foundation 2014, Dickenson-Jones et al. 2016, Emerton et al. 2015, Oo et al.2015, World Bank 2013). Fiscal decentralisation and deconcentration form a cornerstone of the government's current public financial

[1] As with the annual financial calendar, these steps are the same for all Ministries and almost identical for funds being disbursed to states and Regions.

[2] According to budgetary terminology, Ministries (such as MONREC) are group accounting heads. Departments (such as FD) are major heads, Divisions (such as NWCD) are minor heads.

management reform process (MFAR 2013). In addition to the gradual roll-out of a medium-term fiscal framework, a major thrust has been to increase the share of expenditure and revenue collection in state and region budgets, and to enhance sectoral deconcentration and subnational budget allocation within line ministries (Nixon and Joelene 2014, UNICEF 2014).

Revenue collection and administration

The 2008 Constitution establishes the basic terms and conditions under which public revenues are managed and administered, further elaborated by the Union Government Law of 2010 and Special Goods Tax Law 2016, as well as annual Union Tax Laws, Union and State Budget Laws and related Supplementary Appropriation Laws. The 2017 Financial Regulations stipulate that all taxes and other public revenues shall be collected by Union and State/Regional Level departments and organisations (as appropriate), and deposited into the Union Fund or State/Region fund. As stated in section 231 of the Constitution, all taxes and revenues are required to be collected and deposited in the Union Fund except for those specified in Schedule Five. Section 254 stipulates that Schedule Five taxes and revenues are collected by Regions and states, and must be deposited in Region/State Funds. Among other things, Schedule Five (as amended in 2015) includes land revenues, taxes on the extraction of wood and non-timber forest products (except for teak and other restricted hardwoods).

The annual budget plan of each ministry (and State/Region) must estimate both receipts and expenditures for the coming year. A detailed breakdown of the types and amounts of revenues that are expected to be collected by each Ministry is provided in the annual Union Budget Laws and Tax Laws. Union Tax Laws also specify the coverage, rates and collection procedures for the taxes levied on different products and services. Article 6 specifies that ministries are required to report to Budget Department of the MOPF on revenue collection (against the projections laid out in the annual Union Tax Law) on a quarterly basis. The MOPF is then responsible for compiling this information, and providing an analysis and comments to the Union Government. The revenues collected by each ministry are remitted to their account at the MEB, from whence they are transferred into the Union Fund via the CBM.

Budget carryover and reappropriation

Ministries (and States and Regions) can spend only against their approved annual workplans and budgets. Expenditures cannot exceed the permitted amounts for the financial year or the allocations made for that quarter. As mentioned above, funds are released on a quarterly basis into accounts held at the MEB. They must be drawn down, allocated and used over the course of the year. No interest is allowed to be earned on these accounts, and no budget can be carried over beyond the end of the financial year (except through 'other accounts' and special funds, as described below). As specified in the 2017 Regulations on Financial Management, any funds that are not spent during the financial year must be surrendered. It is strictly forbidden to utilise or withdraw leftover funds from the budget account at the end of the financial year, or to place them in a deposit account.

Once allocations are decided and sanctions are issued they are fairly immutable, although (as mentioned above) minor adjustments are allowed via the budget revisions that take place over the first six months of the financial year and the Supplementary Appropriations Law that is issued in May. Some reappropriation is also permitted between budget lines, mainly at the primary expenditure level, and is reported to be commonly exercised (World Bank 2013). Unspent funds can be transferred between current expenditure accounts within the same department (including between divisions within that department), with the authority of the Director General, except for salary, entertainment and reserved expenses. No transfers between account heads are permitted in capital expenditures, or between capital and current expenditures.

Reappropriations between Departments (except for the items mentioned above) require MOPF approval, and cannot be transferred directly: transfers must be effected through the General Reserve Fund. Transfers between ministries must go to the Cabinet for approval, and capital expenditure transfers also require the recommendation of the Construction Work Coordination Board (Capital) and Equipment Control Committee. As explained further below, transfers from the Union fund to the Region or State fund may be made as grants or loans (and must be included in the annual budget estimate), but cannot be made directly from ministries. There is also no direct mechanism for transferring public funds to other organisations, except under a contract for the procurement of a specified service. In this case, the expenditure needs to be included in the annual budget and workplan.

Financial transfers from the Union Fund to Region/State Funds

In addition to the 'own source' Schedule 5 revenues that are generated and retained at a sub-national level, funds are transferred vertically from the Union Fund to State/Regional budgets. As specified in Section 230 of the 2008 Constitution, vertical transfers are made to State and Region governments via grants and loans from the Union fund. These transfers are explained in the 2017 Regulations on Financial Management as having the purpose 'to cover the deficit of the budget or to carry out the special cases of the Regions or States budget'. The 2017 regulations also allow that 'revenues administered and collected by the Union in Regions or States may be transferred to Regions or States fund from the Union fund in accord with the permission of the Union Government in accordance with the Union Taxation Law'.

The criteria for allocating these vertical budget transfers have recently been updated, as part of the ongoing fiscal decentralisation and reform process. Previously, grants from the Union Government were negotiated between each sub-national branch of government and the Union. Under this model, State and Regional governments submitted their projected expenditures and revenues to the Union government each year, and the resulting 'funding gap' was then calculated. The extent to which these gaps could be covered was typically a result of applying various norms, based on historical precedent (maintenance of capital, current or inter-sectoral ratios, technical cost norms, etc.) but also lobbying by various agencies and individuals (Shotton et al. 2016).

As of 2015/16, this process was changed to follow a 'rule-based' financing model, whereby funding is determined according to a formula aimed at reflecting both development expenditure needs and fiscal constraints (Joelene 2016). In addition, grant amounts are now announced to State/Region governments before their budget proposals are finalised. Previously this information was only provided after one or more initial budget proposals had been made.

Initially, three criteria were used to calculate sub-national budget transfers – population (based on the 2014 national population census), poverty index (based on the 2009/10 Integrated Household Living Condition Assessment) and per capita GDP (based on Planning Department estimates). The first two reflected development needs, and the third fiscal constraints. As laid out in the Citizen's Budget (MOPF 2017), three more criteria were added in 2016/17: land area, urban population as a percentage of the total population (both based on the 2014 national population census), and per capita tax collection (based on actual tax revenues collected in the fiscal year). The first reflects development needs and the second and third reflect fiscal constraints. These criteria are currently being reconsidered in the light of the Myanmar Sustainable Development Plan). The value of each needs-related criterion is divided by the average value across all states/regions, while fiscal constraints are calculated by dividing the inverse of each criterion by the overall average; an average value is then computed for each State or Region across all of these ratios. Total funding is then divided between states/regions according to this average value.

In addition, starting in 2016/17, the Internal Revenue Department began to share 15 per cent of (non-import) commercial and special goods tax revenues with State/Region governments, based on the area of collection (Shotton et al. 2016). There is also a long-standing arrangement whereby 5 per cent of (non-corporate) income tax, and 2 per cent of stamp duties are shared with Development Affairs Organisations (DAOs).

Other accounts

'Other accounts' were launched in 2012 as a mechanism which would allow state economic enterprises (SEEs) and other selected government agencies to retain and spend all or a portion[3] of their own-source revenues outside the routine annual budget allocation system revenues, and use them to fund the running of their commercial operations. The idea is to reduce pressure on the public budget. These are permanent accounts that form part of the Union Fund account, but are earmarked for a specific government organisation or department, and therefore belong to the entity that opens them (Bauer et al. 2016, 2018, NRGI 2016). They can be set up with the approval or MOPF.

A key feature of other accounts is that, unlike other government accounts, money can be rolled over beyond the end of the financial year without the need for budget approval. Examples include the accrual of petroleum revenues and other income by the Myanma Oil and Gas Enterprise (see Bauer et al. 2016, 2018, Heller and Delesgues 2016, NRGI 2016), the retention of pre-school PTA fees by the Department of Social Welfare (UNICEF 2014), Ministry of Health accounts set up to hold receipts from community cost-sharing, hospital equity funds and interest on trust funds, Ministry of Public Works accounts for maintenance income, cement sales and housing rentals, and Ministry of Education accounts for dormitory fees (World Bank 2013). Myanma Timber Enterprise (MTE) also retain some revenues from timber harvesting, processing and marketing.

Although they are treated as being exceptional or as special cases, both the number and value of other accounts have historically been substantial. Around 13,400 other accounts were reported to be in existence in 2012, accounting for some 44% and 28% of total Union revenues and expenditures respectively (World Bank 2013). For oil and gas revenues, alone, a figure of USD 1.6 billion was cited in 2013/14, equivalent to more than twice the government's spending on health in that year, and about 1.5 times the amount spent on education across the country (Heller and Delesgues 2016). In 2017/18, it is thought that almost half of the revenues of Myanmar Oil and Gas Enterprise (MOGE), projected at about USD 1.23 billion (MPF 2017), will go to other accounts (NRGI 2016). According to the Joint Public Account Committee's Annual Debt Report for 2016-17, MOGE has the largest other balance of MMK 5.6 trillion, followed by Myanma Posts and Telecommunications, Myanma Timber Enterprise and Myanma Gems Enterprise[4].

Because other account revenues and expenditures have not in the past been included in routine fiscal reports (and therefore not shown in the Government's budget data) there has been a high degree of flexibility as to the uses to which they can be put, and they have traditionally been subject to little oversight or reporting (World Bank 2015). It should however be noted that this situation appears to be changing. Budget bill debates held during the preparation of the 2018/19 budget included discussions on other accounts based around information provided by the Joint Public Accounts Committee, and a proposal on transparency in the country's extractive industries (including the transfer of many environment and natural resource revenues to the Union budget rather than other accounts) was approved by the Pyithu Hluttaw in November 2017.

[3] SEEs are required to remit 20 per cent of revenues earned to the Union budget, and also to pay a 25 per cent tax on net income.

[4] Reported in the Myanmar Times 8 March 2017 'SOEs should utilize funds from 'Other Account''.

Fiscal earmarking and retention

Although, in principle, all public revenues must be remitted to and managed via the Union Fund or State/Region Funds, various forms of fiscal retention and earmarking do in fact exist. 'Other accounts' have already been described above. The principle of 'general sharing' of public revenues has also recently emerged, although still remains very limited. One example is the 2016 decision to reallocate revenues from the 5 per cent commercial tax on telecommunications products to health, education, transportation and development projects. Along similar lines, a proposal is currently under consideration which would set aside 2 per cent of tobacco taxes for spending in the health sector. The Ministry of Tourism and Hotels is also investigating the possibility of instituting a bednight levy on foreign tourists of USD 1 per night. which would be used to resource the Tourism Development Fund.

There also appears to be a growing interest in piloting mechanisms to retain and reinvest public revenues at the Regional and State levels. A trust fund for Inle Lake has been under development for some time now, funded via the public budget as well as the retention of 45 per cent of tourist entry fees, and intended as a mechanism to finance the 2015-25 conservation plan. In addition six per cent of entry fees are allocated to a staff fund, and two per cent goes to the development of the tourism industry in the area and regionally. The Shan State Government is also reported to have established a 'Fund for Poverty Reduction and Environmental Conservation' by decree from the Chief Minister, utilising contributions from mining developers (Thet Aung Lynn and Oye 2014).

The Environmental Management Fund

Aside from 'other account' arrangements, there are currently only two extra-budgetary funds that are established by law, and operate within government. One is the Environment Management Fund (EMF); the other, the Disaster Management Fund, is described further below.

Article 8 of the Environmental Conservation Law 2012 specifies that 'the Ministry shall establish an Environmental Management Fund … for effective implementation of environmental conservation works in addition to the receipts from the Union Consolidated Fund'. The Environmental Conservation Rules 2014 further elaborate that this fund will operate in the Union Budget and be maintained from a variety of sources, including the Union budget, income earned by the Ministry, compensation for environmental damages, pollution charges, payments for environmental services, contributions from natural resource-based businesses and industries, as well as other loans, donations, aid and official income received from domestic and international sources. It has the purpose of mobilising, administering and disbursing financial resources from different national and international sources for the management, conservation and enhancement of the environment, and is intended to provide a source of new and additional funding to supplement budget allocations from the Union Consolidated Fund.

A process is currently taking place to plan for the fund's legal structure, functions and operating modalities (see WWF and UNDP 2018). A cross-sectoral Fund Preparation Working Group was created in May 2017, under the auspices of the National Environment and Climate Change Central Committee (NE5C). After a year-long process of dialogue, consultation, scoping and appraisal, a design option for the fund was developed in April 2018 (WWF 2018). A proposal has been developed by MONREC which is currently in the final stages of internal discussion, prior to being submitted to Cabinet for approval. Once approved, permission will be granted to open an account, and the fund can be activated.

The design proposal for the EMF envisages an umbrella fund, with both a general fund and earmarked sub-funds or 'windows' targeted to specific purposes, sectors, locations, beneficiaries and/or funding sources, which may incorporate revolving, sinking and/or holding fund elements (see Emerton 2017b). This will enable the EMF to attract and administer a diverse mixture of domestic and international, public and private funding sources. Income and receipts may either be remitted to the general fund, or channelled directly to a specified window or windows. In line with the provisions of the Environmental Conservation Rules, a special account will be opened for the EMF at a State-owned bank, and accounts will be set up for each category of funding source. Financing windows will have the facility to be run as sub-accounts of the general fund or (depending on the funding source, as well as the requirements of the funder) as separate accounts. A wide range of environmental financing mechanisms are provided for in the law, and have been identified as having potential, including receipts from the Union Consolidated fund allocated both via the annual budget and fiscal earmarking, revenues earned by MONREC, pollution-related fines and compensation, fees and charges, and other public income streams derived from payments for ecosystem services, biodiversity offsets, safeguard payments and voluntary donations (Emerton 2017a).

It is planned that the EMF will be established within MONREC, and will have a three-level governance structure. The (existing) NE5C will be responsible for overall oversight, control and decision-making. Ongoing technical guidance and support will be provided by a Working Group established under the Committee. The EMF will be administered on day-to-day basis by a dedicated Fund Management Unit, established as a discrete unit within MONREC.

The Myanmar Biodiversity Foundation

Recognising that Myanmar's protected areas face critical financial constraints in terms of the amount, diversity and administration of funding, a process was initiated in 2015 to scope out possibilities for an independent funding mechanism that could supplement government budget allocations (see Emerton et al. 2015). What is currently known as 'the Myanmar Biodiversity Foundation (MBF)' is now under design by the Forest Department and Wildlife Conservation Society (WCS). The MBF is envisaged as an independent fund, located and managed wholly outside government. It would however be closely aligned to government policy and priorities, and would allow MONREC a key role in decision-making.

Legal aspects of fund registration and financial management are being investigated. Although still at a preliminary planning stage, it looks probable that the MBF will be constituted as either a local NGO foundation or a not-for-profit company limited by guarantee. The emphasis is on developing a fund which has a substantial endowment component, but which could also receive other investments and contributions from international donors and the private sector. The endowment, at least, would likely be managed offshore, by a professional financial manager. The intended recipients of the funding include government, as well as civil society and other non-governmental and private organisations at all levels of scale.

Other targeted funds

Aside from the EMF, the only other government-run targeted fund that is established by law is the Natural Disaster Management Fund (NDMF), enabled by the Disaster Management Law 2013 and Rules 2014 and operated under the auspices of the Ministry of Social Welfare, Relief and Resettlement. The structure and setup of National and Region/State NDMFs have some similarities with the EMF, although also differ in a number of fundamental ways. They are to be resourced by contributions from international donors as well as the public budget and private donations. However, unlike the EMF, they are not required to operate within the Union Budget. The NDMF is held in an account that is separate from the Union Consolidated Fund account. In practice, the majority of funding comes from international contributions to emergency disaster relief and humanitarian assistance, alongside counterpart funding from government. It functions largely as a coordination mechanism to manage different streams of international funding. Even though the Disaster Management was only formally established in 2014-15, it served to consolidate a number of pre-existing accounts that had been in operation since 2005. These had been set up at different times to absorb international funding provided in the aftermath of major disasters (such as Cyclones Nargis, Giri and Mahasen), and still contained residual, unspent funds.

A number of other targeted funds have been established which also seek to finance specific sectors and causes, which are largely resourced from international development assistance. The recently-issued 2018 Myanmar Development Assistance Policy (DAP), prepared by the Development Assistance Coordination Unit (DACU) and Foreign Economic Relations Department (FERD) of MOPF, encourages the delivery of development assistance through pooled or multi-donor trust funds[5]. Examples include the Joint Peace Fund, the Myanmar Partnership Multi-Donor Trust fund, the Myanmar Humanitarian Fund (formerly known as, the Emergency Response Fund) managed by UN Office for the Coordination of Humanitarian Affairs, the Three Millennium Development Goal Fund (formerly the 3 Diseases Fund) supporting the Ministry of Health and Sports, the Multi-Donor Education Fund supporting the Ministry of Education, and the Livelihoods and Food Security Trust Fund (LIFT) working in alignment with the Ministry of Agriculture, Livestock and Irrigation to improve the lives and prospects of smallholder farmers and landless people in rural areas.

Although most of these funds (except for EMF and NDMF) are operate in partnership with the government (and typically feature in Ministries' annual workplans and budgets), all are run independently. None except the EMF and the Disaster Management Fund is guided by specific legislation, linked to a government-run extra-budgetary fund, or receives a dedicated public budget allocation. Rather, they are set up and run on a conventional project model. In Myanmar, each externally-funded project has its own special account, governed by MOPF and CBM regulations. The Foreign Economic Relations Department of MOPF is charged with the management of all external assistance, with grants being managed by the Grant Aid Foreign Assistance Steering Committee, chaired by the President and with the Minister of MOPF as Secretary (Rieffel and Fox 2013).

Cash and in-kind transfers

A variety of environmental results-based payments and transfers are starting to be developed in Myanmar, although at the moment these remain mostly at the level of stated policy intent. The few on-the-ground examples that have been developed function mainly as one-off pilots, led by international conservation organisations. None have yet been scaled up to the national level, or institutionalised within the workings of MONREC or other agencies. For example, the 2014 Summary on Nature and Biodiversity Conservation highlights payments for ecosystem services (PES) as one of the best solutions for achieving the sustainable financing of nature and biodiversity conservation in Myanmar (NWCD 2014). Both ECD and FD were subsequently mandated to investigate PES possibilities and models, including legal requirements. The 2018 Conservation of Biodiversity and Protected Areas Law explicitly provides for the development of payment for ecosystem services (PES) derived from Protected Area ecosystems. There is also currently a great deal of interest in the possibilities that biodiversity offsets might offer as a conservation funding mechanism. Shwe Taung Cement Company has been working with Fauna and Flora International (FFI) to develop a biodiversity management plan and offset strategy for its limestone quarry and cement plant located at Pyi Nyaung Village and Coal mine concession at Chaung Sone Village.

[5] It should however be noted that the DAP emphasises the delivery of development assistance through national systems, and expresses a preference for the delivery of development assistance through direct (general and/or sector) budget support.

A number of examples however exist in Myanmar of other forms of cash and in-kind transfers, outside the environment sector. It is however worth noting that most (if not all) of these are funded from external sources, not directly from the government budget. One example of a conditional transfer with a particularly wide scope and coverage is the stipends program, implemented by the Ministry of Education. This has the purpose of decreasing school dropout and increasing completion among poor and vulnerable students. Selected students receive stipends for four consecutive years, if they comply with certain conditions relating to enrolment and attendance, good behaviour, and performance. The Ministry of Health's maternal and child health voucher scheme reimburses mothers after they attend nutrition education sessions and access health services such as antenatal care and immunization (Stokkel 2015). This however operates a 'softer' approach which encourages compliance, but does not withdraw transfers if the conditions are not met (Villarroel 2015).

For several years, the World Food Programme has delivered cash-for-work transfers through its community assets creation programme. Participants from marginal and vulnerable groups in Magway, northern Rakhine and Shan receive cash for themselves and their families in return for work. Since 2015, the scheme has been scaled up further, especially targeting flood-hit areas and internally-displaced persons. Plans are underway to further extend the concept to safety net programmes such as asset creation and nutrition through conditional cash transfer in peri-urban areas, and to upgrade the technologies that are used to effect the payments. Upon successful identification of new service providers, the idea is to shift from direct, immediate cash payments to more sophisticated solutions such as electronic mobile vouchers.

Since 2013, the Department of Rural Development has implemented the National Community Driven Development Project with funding from the Governments of Italy and Japan, and the World Bank. Now in its third cycle (scheduled to run until 2021), it seeks to enable poor rural communities to benefit from improved access to and use of basic infrastructure and services, and to respond promptly and effectively to crises or emergencies. The model combines conditionality and unconditionality aspects. Community groups in pre-selected townships are provided with grants to build small infrastructure that they have selected themselves (such as the rehabilitation and expansion of school buildings, health centres, water supply systems, footpaths, jetties and bridges). These average out at USD 12 annual per capita block grant investment. The grants are transferred into community bank accounts, expenses are recorded on village signboards, and social, technical and financial audits are carried out to monitor spending and impact.

3. Experiences from other countries

Although Myanmar's needs and situation and situation are of course unique, other countries' experiences in setting up systems for national REDD+ finance management provide useful lessons learned. This chapter provides a series of brief snapshots of some of the models that are being considered elsewhere, based on case studies from 10 other countries within and outside the ASEAN region.

However, as yet, there is relatively little experience available and documented. In most countries REDD+ finance management systems remain at the design stage. Only in a very few cases are they actually in place or fully operational. This is perhaps hardly surprising, given that REDD+ results-based payments are still largely yet to materialise. It should also be noted that this chapter does not seek to present a comprehensive inventory of REDD+ finance around the world. Rather, the intention is to showcase a representative range of case studies, particularly focusing on those at a more advanced stage of development.

Using existing systems to administer REDD+ funds

In many countries, existing national funds are being extended or modified to receive REDD+ finance. This has obvious advantages in the sense that it avoids the lengthy, difficult and sometimes costly processes that are required to develop and approve new institutions, regulations, systems and capacities.

One example is Costa Rica, where the national Forest Fund (FONAFIFO) has been designated as the mechanism to channel REDD+ results-based payments. FONAFIFO is a semi-autonomous public entity, and is governed by a board of directors that includes representatives from the private sector, small and medium-sized forestry producers, the industrial forestry sector, the Ministries of Environment and Energy, Agriculture and Livestock, and the national banking system. The choice of FONAFIFO is a logical one, given that REDD+ benefit-sharing systems are based at least partially on the country's longstanding PES programme. FONAFIFO has been operating the national PES scheme since 1997, and thus is already focused on financing small and medium-scale landholders to undertake afforestation, reforestation, agroforestry and sustainable forest management activities.

> Box 1: Examples of the use of existing finance mechanisms to manage REDD+ funds
>
> Costa Rica: semi-autonomous public entity national forest fund, including PES structure
>
> Viet Nam: national and provincial government-run Forest Protection and Development Funds, including PES structure
>
> Colombia: public-private partnership, non-profit natural heritage fund
>
> Uganda: government-run national climate or national tree fund, in combination with fiscal transfers, PES and conditional cash transfer systems
>
> India: fiscal transfers proposed for vertical distribution

Viet Nam, too, is considering establishing the national REDD+ fund as a sub-fund under existing central and provincial Forest Protection and Development Funds (Pham et al. 2013). These are government-run funds, managed by the Vietnam Administration of Forestry (VNFOREST), an agency under the Ministry of Agriculture and Rural Development. The funds were first established in 2008, and are already used to administer the country's payments for forest ecosystem services system. As is the case in Costa Rica, the Viet Nam government has been promoting the country's PES programme as a potential mechanism for distributing payments from REDD+ (TFD 2014).

In Colombia an existing fund is also being used to receive and manage REDD+ investment finance and results-based payments. The Natural Heritage Fund (Fondo Patrimonio Natural) already administers funds for pilot REDD+ projects in the northern Colombian Amazon, and has been contracted to administer financial and procurement aspects of the REDD+ Early Movers Programme. One key difference from the previous examples is however that Fondo Patrimonio Natural is not purely government-run. It was established in 2005 as the result of a public-private partnership between several institutions, designed as a non-profit fund that invests in environmental projects. Originally focused on biodiversity and protected areas, it now also incorporates REDD+

In Uganda, the preferred design option is to use three existing financial mechanisms to manage REDD+ funding: a national fund, a vertical fiscal transfer system and local-level conditional cash payments (Indufor 2017). The plan is that international financial flows will be received and administered by a government-run autonomous fund with its own steering body and secretariat. Neither of the two national fund options that are being considered are yet operational (although both have been enabled by law and approved by government). These are the National Climate Fund (enabled under the 2012 National Climate Change Policy) or the National Tree Fund (mandated in the 2004 National Forestry and Tree Planting Act). The fiscal transfer system that is proposed to be used to distribute REDD+ payments to the grass level is however already used by government to channel monetary and non-monetary benefits from central government to local government. It is embedded in the decentralised public budget system, and implemented through the Ministry of Finance, Planning and Economic Development. Funds would then be further distributed to land owners, communities and the private sector via performance contracts, PES agreements or conditional cash transfers, according to locally-developed plans for reducing deforestation and degradation.

Although still under discussion, India's existing vertical fiscal transfer system has also been proposed as a mechanism for distributing REDD+ funds to the sub-national level (Busch 2018). This is already used to redistribute tax revenues between States. In 2015 the allocation formula used to calculate the grants-in-aid provided to different states was formally modified, adding forest cover to the existing criteria used to determine the ratio of central tax revenues shared (Verma et al. 2014). Each component of this 'horizontal devolution formula' is accorded a weight, including the state's area (15 per cent), population in 1971 (17.5 per cent) and 2011 (10 per cent), fiscal capacity and income distance (50 per cent), and forest cover (7.5) per cent. These forest-based revenue transfers work out to about USD 120 per hectare per year (Busch 2015).

Developing new REDD+ finance mechanisms

Some countries are proposing to set up new funds that are designed specifically for the purpose of managing REDD+ finance. Although this can involve quite complex and lengthy processes of design, debate and approval, several of the models that have emerged demonstrate innovative approaches to fund management and distribution.

Brazil's Amazon Fund is one such example. It was authorised in 2008 by Presidential Decree to function as a REDD+ mechanism which would receive voluntary donations for non-refundable investments in efforts to prevent, monitor and combat deforestation, as well as to promote the preservation and sustainable use in the Brazilian Amazon. Its assets come from domestic public funding, international grants and donations, and the interest from investments. To date, it has disbursed more than USD

Box 2: Examples of new mechanisms developed to manage REDD+ finance

Brazil: Amazon Fund in place, managed by the government -run Brazilian Development Bank

Democratic Republic of Congo: National REDD+ Fund (FONAREDD) in place, established and run independently of government

Philippines: proposed option is national REDD+ fund established and run as a private or non-governmental organisation, operating in conjunction with existing national budget system, conditional cash transfer and revenue-sharing rules.

Peru: Private trust managed by bank or financial institution proposed, but never implemented

Indonesia: government-run Fund for REDD+ Indonesia (FREDDI) proposed, but never implemented

260 million (Amazon Fund 2018). The fund is managed by the Brazilian Development Bank (BNDES), a financial institution that is fully owned and controlled by the federal government and associated with the Ministry of Development, Industry and Trade. BDNES is responsible for raising and investing funds, monitoring the projects supported, accounting and reporting, and communicating the results obtained. The steering committee is chaired by the Ministry of Environment, with a membership drawn from federal government, state governments and civil society. There is also a technical committee, responsible for certifying the amount of reduction of carbon emissions from deforestation calculated by the Ministry. This comprises six scientific experts appointed by the Ministry of Environment, based on a list submitted by the Brazilian Climate Change Forum.

In the Democratic Republic of Congo, a REDD+ National Fund (FONAREDD) was established in 2012 (DRC 2015). It operates two funding windows. The first focuses on phase 2 investment finance and traditional overseas development assistance. The second will administer phase 3 results-based payments. FONAREDD is run outside government, and managed by an independent body provided for by the Office of the Multi Partner Trust Fund (MPTF). This follows internationally approved fiduciary rules, is guided by a multi-stakeholder decision-making body, and anchored in transparent processes (Aquino and Guay 2013). The National REDD+ Fund is a vertical fund whose management is provided by the Office of the Multi Partner Trust Fund (MPTF). The fiduciary rules and procedures of the entities that have access to the Fund apply. The government does however play a key role in decision-making, as the steering committee is under the chairmanship of the Ministry of Finance and vice-chairmanship of the Ministry of Environment. It also includes six Ministers in charge of the main land-use sectors (agriculture, environment and forests, tenure, land use planning, energy) as well as representatives from civil society, the private sector and international technical and financial partners. The steering committee is advised by a multi-stakeholder technical committee, led by the Ministry of Environment and including both national and international experts. The Executive Secretariat manages the daily coordination of the activities of the Fund.

The preferred option for the Philippines also involves the development of a new, dedicated national REDD+ fund (the second option being considered is a sub-fund in the existing People's Survival Fund – a special fund created in the National Treasury to finance climate change adaptation). This is planned to follow a public–private partnership model, being run under a private or non-governmental setup but with key government agencies represented on the board (Chokkalingam and Maguigad 2016, GIZ 2016). While all REDD+ finance would come into this national fund, individual contributions could be 'tagged' to particular locations or groups. A percentage of funding received would be set aside in a reserve fund (in case of a reversal of emissions reductions), and the remainder would be channelled down to forest management units (defined to include protected areas, community-based groups and indigenous peoples) following existing conditional cash transfer and revenue-sharing rules. These would follow the conditional cash transfer schemes already operating in education, health, welfare, poverty reduction and environmental sectors. Vertical transfers would also make use of the existing Integrated Protected Area Fund (IPAF) model, which allows protected areas revenues to be retained at central and site levels. Local and provincial Community Trust Funds would also be used to distribute payments at the grassroots level. A share of funds would be retained at the local level to provide REDD+ support services, consistent with the Local Government Code (which allows Local Government Units to receive 40 per cent of the gross collection of taxes and other charges from the utilization and development of national wealth within their jurisdictions).

In Peru, it was also planned to develop a large umbrella fund to support the implementation of the National Strategy for Forest and Climate Change, including sub-funds to absorb and administer REDD+ funding. This was envisaged to be managed by a bank or financial institution, under a 'fideicomiso' – a private trust-like agreement. In the event, the government and donors were unable to agree on fund design, capitalisation and governance, and an interim, project-based mechanism is being used to channel REDD+ phase 2 funding.

Similarly, in Indonesia, the proposal to develop the Fund for REDD+ Indonesia (FREDDI), managed through the Badan Pengelola REDD+ agency (BP REDD), were never implemented. FREDDI was designed to have four funding windows: priority programmes at the national level, sub-national priorities, competitive grants and a small grants facility (Chokkalingam and Maguigad 2016). However, in 2014 BP REDD was closed down, and the National Climate Change Council was integrated into the Ministry of Environment and Forestry. A new REDD+ finance management system is under development. (Peskett 2011)

Summary of insights and lessons learned

Other countries' experiences provide some useful insights for Myanmar. As mentioned at the beginning of the chapter, it should however be noted that there is as yet little or no implementation track record to draw on. This is hardly surprising, as neither REDD+ investment finance nor results-based payments have yet materialised at any meaningful level. Most REDD+ funds and financial management systems are yet to become operational. The lessons learned summarised below must therefore be recognised to be highly speculative, and provisional. Much of the documented information that is available describing international experience is based on possibilities or proposals for managing REDD+ finance, rather than actual functioning systems.

is clear that there is **no one-size-fits-all model for REDD+ finance management** that will suit all circumstances and contexts. The REDD+ fund model that is selected in a given case depends largely on what arrangements already exist in a country, what kind of funding is envisaged, and from which sources it will be provided (Madeira et al. 2013).

Flexibility and responsiveness need to be built into REDD+ finance management systems, to allow for the possibility to evolve and adapt over time as internal and external needs and circumstances change. In particular, financial management needs and modalities may vary as REDD+ funding moves between phases 1, 2 and 3, from readiness, planning and initial implementation to results-based payments (WWF 2013).

Box 3: Summary of international lessons learned on REDD+ finance management

- There is no one-size-fits-all model for REDD+ finance management that will suit all circumstances and contexts.
- Flexibility and responsiveness need to be built into finance systems, as REDD+ funding moves between phases 1, 2 and 3, or internal and external needs and circumstances change.
- There is a great deal of variation in the models that are being proposed (or, in a few cases, already being used) to receive, hold and manage REDD+ funding.
- There is a general trend to use existing transfer systems to pass on funds to different levels of scale and stakeholder groups, especially ecological-fiscal transfers, PES and conditional cash payments.
- Most REDD+ funds or finance management mechanisms have a similar tripartite governance structure of steering committee, technical advisory group and dedicated fund management unit.
- In most cases, central (and often local) government plays a key role in REDD+ finance management and decision-making.
- In almost all cases REDD+ funds and finance management mechanisms allow for broad stakeholder participation in their design, governance and implementation.

While most countries' REDD+ finance management models are based on some form of dedicated national and/or subnational fund or sub-fund (Karsenty 2012), there is a **great deal of variation in the models that are being proposed (or, in a few cases, already being used) to receive, hold and manage REDD+ funding**. For example, these include the use of existing financial mechanisms 'as is' through to the development of entirely new structures and systems, range from government-run to privately-constituted funds, variously manage funds through public budget channels, via a separate and independent fund structure and/or through commercial bank accounts, and may or may not involve third-party intermediaries to transfer funds to the final recipients.

There however seems to be a **general trend to build on existing systems and processes to transfer or distribute REDD+ finance from the selected finance mechanism to different levels of scale and stakeholder groups**, and to follow the precedents that have already been set for other types of development finance or environmental funding in a country (Pham et al. 2013). This is also often a way of ensuring that REDD+ funding is mainstreamed, prioritised, and aligned with broader environmental and development objectives (Madeira et al. 2013). National or local-level PES schemes are widely advocated and applied as a mechanism to distribute REDD+ payments horizontally between different forest land and resource using and managing groups (see, for example, FONAFIFO et al. 2012, Loft et al. 2014, TFD 2014, Thuy et al. 2013, WWF 2013). Conditional cash transfer experiences are also highlighted as providing a valuable model for the disbursement of REDD+ results- based payments (Peskett 2011a, TFD 2014). Several countries are investigating the possibility of modifying existing government fiscal allocation systems to deal with the vertical transfer of funds between government units at different levels of scale. Ecological-fiscal transfers, in particular) have been suggested to have great relevance for administering sub-national level REDD+ finance (see, for example, Loft et al. 2016, Madeira et al. 2013), especially for linking payment conditionality to performance (Busch 2018).

Most REDD+ funds or finance management mechanisms have a **similar tripartite governance structure**, involving the establishment of some kind of dedicated fund management unit to manage day-to-day operations, working under the guidance and oversight of an apex oversight board and/or steering committee and, usually, some kind of a technical advisory group.

In most cases, **central (and often local) government plays a key role in REDD+ finance management and decision-making.** This is the case even where REDD+ finance mechanisms are set up and run independently. It is hardly surprising, given that national governments are envisaged as the first recipient (and as being ultimately accountable for) a significant proportion of phase 2 investment funds and all of phase 2 results-based payments. The international community and development donors that are funding +REDD activities, too, tend to exert a strong influence over the development of REDD+ finance models.

In almost all cases REDD+ funds and finance management mechanisms **allow for broad stakeholder participation** in their design, governance and implementation. Central and local government, sectoral line ministries, non-governmental and civil-society organisations, universities and research institutions, the private sector and often the international or donor community, are all variously represented at steering committee and technical advisory levels. This is the case even when they are set up to be fully government-run (and, conversely, even independently-constituted structures allow for government to play a lead role in decision-making). There is general consensus that for finance management and distribution systems to function well, their design and operation must be consultative and seen as legitimate those involved in REDD+ activities (Kowler et al. 2014).

4. Shortlist of potential REDD+ financial management options

Summary of key functions and requirements

As described in Chapter 1, this document aims to identify a shortlist of options for managing phase 2 REDD+ investment finance and phase 3 results-based payments. Based on REDD+ financing characteristics and needs (as described in Chapter 1) and drawing on international experiences, best practices and lessons learned (Chapter 3), it is possible to identify seven key functions and requirements that the identified finance management system(s) must be able to fulfil. These are to:

i. Receive, hold and manage **both government and external funding**. While phase 2 investment funds are likely to come from national government, international development donors and the private sector, phase 3 payments are envisaged to be derived from the international community (possibly through a third-party mechanism such as the GCF).

ii. Ensure that funds are managed and used **only for designated REDD+ activities**. REDD+ funding is being provided for specific purposes, and is conditional on agreed targets being met. Phase 2 investment funds will be provided to support the implementation of the National REDD+ Strategy, while phase 3 results-based payments will be tied to the delivery of verifiable emissions reductions.

iii. Retain funds on a **flexible, multi-year basis**. It is very unlikely that REDD+ funds, either investment or results-based, will be provided on an annual disbursement basis. Phase 3 results-based payments also will be unlikely to hold steady, and will not be able to be projected exactly. It will be important for the finance management mechanism to have the capacity to carry funding agreements over beyond the end of the financial year, and to adapt to fluctuations in the level of funding received and disbursed.

iv. **Disburse funding horizontally and vertically, to multiple recipient groups** of different legal status. These may include national-level ministries and government agencies; states, regions and lower level administrative units (districts, townships, village tracts, villages, etc.); land and resource users (including forest user groups and enterprises); the private sector; international, national and local-level civil society and non-governmental organisations (including community groups and ethnic armed organisations). Both the recipients and the distribution mechanisms will of course depend on the REDD+ benefit sharing system that is eventually developed.

v. Handle both **conditional and unconditional payments**. Phase 3 REDD+ payments will be released to the Government of Myanmar against the delivery of agreed results in terms of emissions reductions. It can be assumed that at least some of the recipients of this funding will also be expected to accomplish agreed targets or results. As above, the level of conditionality will depend on the REDD+ benefit sharing system that is eventually developed.

vi. Operate **in compliance with national public financial management regulations and procedures**. This is the case regardless of the terms under which the REDD+ finance management mechanism is constituted and managed. A portion of phase 2 investment funding will be destined for or managed through the public budget, and all phase 3 results-based payments can be assumed to be paid initially to the Government of Myanmar.

vii. Meet **external donors' and investors' financial management and reporting requirements and principles for transparency, accountability and effectiveness**. As mentioned above, REDD+ funds will at different times come from bilateral and multilateral development agencies, non-government organisations, the private sector and possibly international financial mechanisms.

In addition to these ‘must haves’, it is desirable that the REDD+ finance management system should:

viii. Serve to encourage, and if necessary absorb and administer, **additional leveraged finance**. During phase 2, some level of leveraged investment funds can also be expected to be generated via private flows. In principle these will form an important supplement to government and donor funding. During phase 3, other conditional or results-based transfers may be deployed to reward and encourage forest conservation and sustainable use and to supplement emissions-oriented payments for avoided deforestation and forest degradation;

ix. Be designed to operate alongside systems which will provide an **enabling financial environment and incentives** for forest land and resource users.

x. Follow a governance and management system that will offer a **platform for multistakeholder technical support and steering**.

Basic financial management models

In the light of the prevailing public financial management processes and procedures in Myanmar (Chapter 2) as well as best international practice (Chapter 3), and taking account of these ten key functions and requirements, there are four basic alternatives for receiving, holding and administering REDD+ investment funds and results-based payments:

- Provide REDD+ finance as **direct support to the public budget**, and allocated to relevant agencies and organisations through normal public budget procedures;
- Treat REDD+ finance as **externally/internationally-funded project(s) or programme(s)**, at national and/or sectoral, agency, sub-national or site levels;
- Modify or extend **existing (or emerging) fund(s)** to handle REDD+ finance; and
- Create **new fund(s)** to manage and administer REDD+ finance.

As summarised in Figure 6, each model implies particular modalities for financial management and administration and offers certain opportunities and constraints. For example, the use of government budget processes is strongly favoured by the DAP, based on accepted procedures and existing capacities, and permits close coordination and alignment with national priorities, policies and plans. It may however place certain limitations and restrictions on how and to whom funds can be disbursed. It could be a particular problem to find ways of channelling resources outside government, or dealing with the conditionality associated with results-based payments. The creation of an independent, dedicated fund has the clear advantage of being able to be tailored specifically to REDD+ needs, including earmarking, conditionality, disbursement across multiple sectors and multi-stakeholder participation. It may however run the risk of undermining national ownership and accountability, and represents a financial management of which there is as yet little experience in Myanmar.

It should also be noted that these four models are not mutually exclusive. In principle, a combination of financial mechanisms could (and, as described further below, might have to) be used to manage REDD+ funds from different sources, at different times, or for different recipients and purposes. For example, REDD+ phase 2 and 3 funding may be managed and administered separately or through a single, consolidated funding mechanism. Distinct financial management and reporting systems may be required to deal with externally-sourced funding and public budget contributions, with grant and loan finance, or with conditional and unconditional payments. Disbursement at the grass roots level or to the final beneficiaries may be effected through a third party or via intermediary organisations.

Figure 6: Basic REDD+ financial management models

Public budget	Internationally-funded projects & programmes	Existing/emerging fund (government-run)	Existing/emerging fund (independent)	New fund (government-run)	New fund (independent)
Summary of financial management & administration modalities *(based on Myanmar practices, procedures and regulations)*					
REDD+ finance is administered by MOPF, and treated as part of the Union budget. Funds are allocated through normal budgetary channels to be received into and spent from Ministries', states'/ Regions' and SEEs' MEB accounts. REDD+ activities are included in and costed as part of annual government workplans.	REDD+ activities and financing flows are managed as grant and/or loan-based projects or sinking funds, usually facilitated and managed by a third-party organisation, but likely according government a key role in planning and decision-making[6]. International and external funding flows are administered via separate bank account(s), and disbursed in line with the planning and approval process outlined in the DAP. Government support is managed through the public budget as counterpart funding.	REDD+ finance are held, managed and disbursed by government, in a dedicated, earmarked (sub)account that is subject to separate reporting procedures. There are currently only three existing government funds that might have the capacity and mandate to handle REDD+ funds: the EMF, NDMF and MTE other account.	REDD+ finance is administered through a dedicated, earmarked (sub)fund by a third-party organisation or unit which would likely include government in fund planning and decision-making. Existing or emerging independent funds that might have the capacity and mandate to handle REDD+ funds include the MBF and LIFT.	REDD+ finances are held, managed and disbursed by government, in a dedicated, earmarked and firewalled (sub)account or financing facility that is subject to separate reporting procedures. According to existing regulations, this would likely either be enabled by specific legislation and hosted by a ministry or state-owned bank, or opened as an 'other account'.	REDD+ finance is administered through a dedicated, earmarked (sub)fund by a third-party organisation or unit which would likely include government in fund planning and decision-making. This may take various forms, such as a domestic or offshore trust fund, multi-donor sinking fund, non-governmental organisation, foundation, private company, and/or facility in a commercial bank.

[6] For example, the DAP requires that the Government is represented at a senior level in multi-donor fund governance structures 'and shall ensure substantive engagement in all stages of the programme cycle', and that a MOPF representative is included in the governance structure of sector-specific multi-donor funds established by individual government entities.

Direct budget support	Internationally-funded projects & programmes	Existing/emerging funds		New funds	
		(government-run)	(independent)	(government-run)	(independent)
Main strengths					
• Favoured by DAP • Uses existing national systems, institutions and processes • Promotes national ownership • Enhances coordination and alignment with national priorities, policies and plans • Serves to mainstream actions to address deforestation and forest degradation into core government operations and workplans	• Allow for tailored, while still flexible, planning and reporting structures and operations • Can retain and carryover funding across years • Designed to channel funding to specific activities and purposes • Able to extend grants, loans, conditional and unconditional transfers • Able to disburse funds across multiple sectors, groups and levels of scale • Allow for multi-stakeholder representation and participation • Geared towards meeting international transparency and reporting standards	• Permanent mechanisms • Use existing national systems, legal provisions, institutions and processes • Promote national ownership • Enhance coordination and alignment with national priorities, policies and plans • Follow long-term planning horizon • Function to earmark, retain and carryover funding across years • Designed to channel funding to specific activities and purposes • EMF designed to extend grants, loans, conditional and unconditional transfers • EMF designed to operate earmarked sub-funds or windows • EMF and NDMF able to disburse funds across different sectors and levels of scale • EMF and NDMF designed to meet international transparency and reporting standards	• Permanent mechanisms • Use existing legal provisions, institutions and processes • Multi-donor funds encouraged by DAP • Allow for tailored, while still flexible, planning and reporting structures and operations • Follow long-term planning horizon • Function to earmark, retain and carryover funding across years • Designed to channel funding to specific activities and purposes • Able to extend grants, loans, conditional and unconditional transfers • Able to disburse funds across multiple sectors, groups and levels of scale • Allow for multi-stakeholder representation and participation • Geared towards meeting international transparency and reporting standards	• Set up specifically to deliver REDD+ activities, needs and requirements • Permanent mechanisms • Promote national ownership • Enhance coordination and alignment with national priorities, policies and plans • Follow long-term planning horizon • Function to earmark, retain and carryover funding across years • Can be designed to extend grants, loans, conditional and unconditional transfers • Can be designed to operate earmarked sub-funds or windows • Can be designed to disburse funds across different sectors and levels of scale • Can be designed to meet international transparency and reporting standards	• Set up specifically to deliver REDD+ activities, needs and requirements • Permanent mechanisms • Multi-donor funds encouraged by DAP • Allow for tailored, while still flexible, planning and reporting structures and operations • Follow long-term planning horizon • Function to earmark, retain and carryover funding across years • Can be designed to extend grants, loans, conditional and unconditional transfers • Can be designed to operate earmarked sub-funds or windows • Can be designed to disburse funds across different sectors, groups and levels of scale • Allow for multi-stakeholder representation and participation • Can be designed to meet international transparency and reporting standards

Direct budget support	Internationally-funded project	Existing/emerging fund (government-run)	Existing/emerging fund (independent)	New fund (government-run)	New fund (independent)
Potential weaknesses					
• May be hard to guarantee that funds are earmarked for REDD+ activities • Difficult to administer results-based payments and conditional transfers within public budget system • Limited possibilities for distributing funds outside government • Short and medium-term expenditure frameworks may preclude long-term planning • Limited possibilities for multi-stakeholder representation and participation	• Unlikely to operate on long-term planning horizon: may require periodic renewal and multiple phases • Government counterpart funding might have to be managed via separate (budgetary) financial mechanism • Additional efforts may be required to promote sense of national ownership, accountability and clear government participation	• Limited possibilities for distributing funds outside government • For other accounts additional efforts may be required to meet international transparency and reporting standards • For other accounts, may be difficult to administer results-based payments and conditional transfers • May offer limited possibilities for multi-stakeholder representation and participation	• Government counterpart funding might have to be managed via separate (budgetary) financial mechanism • Additional efforts may be required to promote sense of national ownership, accountability and clear government participation	• Could be perceived to compete with or duplicate the efforts of existing environmental funds • May require MOPF (or Cabinet) approval • May require dedicated legal instrument • May require the development of new institutional setup, staffing, regulations, financial management and reporting procedures • May be costly and time-consuming to set up and manage • Limited possibilities for distributing funds outside government • For other accounts additional efforts may be required to meet international transparency and reporting standards • For other accounts, may be difficult to administer results-based payments and conditional transfers • May offer limited possibilities for multi-stakeholder representation and participation	• Could be perceived to compete with or duplicate the efforts of existing environmental funds • Requires the development of new institutional setup, staffing, regulations, financial management and reporting procedures • May be costly and time-consuming to set up and manage • Government counterpart funding might have to be managed via separate (budgetary) financial mechanism • Additional efforts may be required to promote sense of national ownership, accountability and clear government participation

Shortlist of REDD+ finance management options

The paragraphs below translate these basic models into four possible options for REDD+ finance management (Figure 7), which may be operated singly or in combination. These options are not exhaustive. They do not cover all possible management arrangements, but select a shortlist of those which are the most realistic and viable in the Myanmar context, have the greatest likelihood of promoting efficient, effective and equitable fund administration and delivery, and are most likely to operate in a transparent and accountable manner.

Figure 7: REDD+ finance management options

Each of the options is described, but not elaborated in detail. The aim is to lay out possible REDD+ finance management arrangements that can be shared with key partners and stakeholders via a consultative process, with a view to selecting the preferred model to be taken forward. It will then be possible to further refine the selected option, including specifying its design elements and implementation arrangements.

Option A: Public budget

Under the public budget option, REDD+ finance would be received by MOPF and disbursed to different government entities through the annual Union and State/Region budget allocation process described above in Chapter 2. Funds would cascade down through different budget heads or levels of government (i.e. Ministries, Departments, Divisions, etc. and states/regions, districts, townships, village tracts, villages, etc.). REDD+ activities would be included in and costed as part of each unit's annual workplans, and incorporated into their expenditure and revenue projections for that year.

The main advantage of this option is that it does not require the development of any new financial mechanism or institution. Should it be chosen for further development, it will however be necessary to ensure that mechanisms are in place to ensure that REDD+ finance can be firewalled from other components of the public budget, and that sufficient funds are earmarked for the activities that have been deemed necessary to reduce forest emissions levels. This is particularly the case for phase 3 results-based payments, which will be released to Myanmar only against the delivery of forest emissions reductions. It may also be necessary to formulate budget plans which extend beyond the timeframe of current annual and medium-term expenditure frameworks.

It should also be noted that this option is not well-suited to handling funding destined for groups outside of government, or for making conditional cash transfers or performance-based payments. Although in principle, funds could be disbursed as service contracts, there is little experience (and limited capacity) of administering large volumes of funding or of transferring funds to non-governmental and civil society organisations, community groups, forest land and resource users or the private sector in this way. It would either be necessary to modify public financial management procedures to allow for these kinds of transfers to be made, or to channel funds onwards through financial mechanisms that are not run by government and which can build conditionality into funding agreements (for example via projects, programme assistance or a multi-donor fund). In principle, these funds could be allocated from the Union budget as counterpart funding. This would also allow for a broader stakeholder representation and participation in decision-making than is allowed for in public finance management systems.

Option B: multi-donor programme fund

Under this option, a multi-donor fund would be set up to administer REDD+ finance under a programme-based approach[7] which is focused on delivering the national REDD+ strategy and action plan. This could take various forms (for example a pooled fund, a trust fund or a series of programmes and projects financed by different donors which are aligned, harmonised and coordinated within an overall REDD+ programme framework). It could operate as an endowment fund (where the capital is invested and only the interest income spent), a sinking fund (that is drawn down over time, as funds are expended on specified activities to reduce deforestation and forest degradation), a revolving fund (that receives regular replenishments from REDD+ financing sources), or a combination of these models. A multi-donor programme fund has the advantage that it balances government preferences with a more independent, flexible approach to fund management than might be possible if working wholly through the public budget. As stated in the DAP, programme-based approaches and multi-donor funds have been identified by the government as a preferred approach to delivering development assistance, after direct budget support.

While the multi-donor programme fund would operate as on-budget assistance[8] and in direct support of, and partnership with, the government agency responsible for overseeing REDD+, externally-sourced funds would be managed separately from the public budget (although in a way that is consistent with, and guided by, prevailing financial rules and regulations). All funding would be designated specifically and solely for the purpose of delivering agreed REDD+ PAMs and activities. Fund governance structures could also potentially incorporate a broad range of stakeholders and partners, in addition to the representatives of MOPF and other government agencies that are required to be included under the DAP[9].

The programme-based multi-donor fund would serve to coordinate international development assistance, domestic finance, private sector flows and government counterpart funding in support of REDD+. These funds could be disbursed to a wide range of across sectors, groups and levels of scale, as grants, loans, project funding, conditional and unconditional transfers. Whereas phase 2 investment funds could be transferred directly into the fund by donors, phase 3 results-based payments from the international community would need to be formally allocated to the fund by government (the initial recipient). Government support would likely have to be managed through the public budget as counterpart funding.

Option C: EMF & MBF hybrid

This option is based on utilising Myanmar's two existing/emerging environmental funds: the EMF and the MBF. The hybrid would utilise both funds at the same time, each for different purposes and targets (as outlined below). This model is proposed due to the complementarities between the two funds, and the inability of either one, alone, to deal with all of the funding sources, recipients and disbursement modalities required for REDD+ finance management. The key difference between the EMF and the MBF is that the former is designed to be managed within the Union budget and as part of MONREC, while the latter will be

[7] As defined by the DAP, a programme-based approach is one which is 'based upon the principles of coordinated support for a Government of Myanmar-owned development strategy, Sector Plan, or similar framework. Programme-based approaches typically share the following features: i) a leadership role enjoyed by a Government Entity; ii) a single comprehensive programme and budgeting framework; iii) a formalised process for PID - coordination and harmonisation of procedures for reporting, budgeting, financial management and procurement; and iv) efforts to increase the use of country systems for programme design and implementation, financial management, monitoring and evaluation'

[8] As defined in the DAP, on-budget assistance is 'development assistance/financing provided by PID that is comprehensively and accurately reported within Myanmar's national budget documentation'. The DAP also emphasizes that 'The GoM wishes to significantly increase the proportion of development assistance recorded 'on budget'.'.

[9] See footnote 6 above.

held, managed and governed independently (albeit in close partnership with government). The main function of the EMF is as a sinking/revolving fund to receive and administer fiscal revenues and funding destined for government, while the MBF is envisaged as a combined endowment, sinking and revolving fund mechanism to attract external funding and private contributions.

In line with these synergies, the EMF could function to administer and disburse REDD+ funding to government, across different agencies, sectors and levels of scale. Meanwhile, the MBF would serve as the main mechanism by which funding is disbursed to the private sector, civil society and non-governmental organisations, forest land and resource users, and communities. In principle, both funds will have the capacity to extend grants, loans, conditional transfers and results-based payments. The most appropriate approach would be to establish discrete REDD+ sub-funds or 'windows' within each fund.

Phase 2 REDD+ investment funds could be channelled directly to EMF and MBF. As is the case with option B (programme-based multi-donor fund), phase 3 results-based payments from the international community would however need to be formally allocated to the two funds by MOPF. Under this option, the government would therefore continue to function as the main decision-maker on the allocation and utilisation of REDD+ finance, while EMF and MBF would operate as the mechanisms by which funding is held, administered and disbursed.

It should be noted that neither of these funds has yet been finalised or formally approved. In the event that the EMF allows for funds to be transferred outside government and as grants, loans and conditional payments, it may be possible to envisage EMF as the sole mechanism for REDD+ finance management.

Option D: National REDD+ fund

Probably the greatest advantage of setting up a new, dedicated REDD+ fund is that it can be tailored to the exact demands of REDD+ finance and the specific Myanmar situation. At a minimum, it should be designed to attract, administer and earmark international and domestic, private and public financial resources for REDD+ policies, measures and activities. The fund should have the capacity and mandate to disburse funds as grants, loans and conditional transfers across the different sectors, groups and levels of scale that have the potential to impact on deforestation and forest degradation, and thus on emissions levels. Ideally, its organisational base and governance structure would allow for multi-stakeholder representation and participation in planning and decision-making.

As is the case with options B and C, phase 2 REDD+ investment funds could be channelled directly to a REDD+ fund, while the government would need to designate it as the management and administrative mechanism for phase 3 results-based payments. Other potential challenges include the possibility of a new REDD+ fund being perceived to be competing with or duplicating the efforts of existing environmental funds such as the EMF and MBF. The necessity of developing new institutions, regulations, financial management and reporting procedures may also mean that the fund is costly and time-consuming to set up and manage.

A variety of alternative financial management arrangements and organisational models could potentially be applied to a new national REDD+ fund, including:

- D1. Government fund located within MONREC, another relevant ministry (e.g. MOPF), or outside of the ministerial structure (e.g. under the President's Office);
- D2. Financing facility created in and managed through a state-owned bank (e.g. MEB or MADB); or
- D3. An independent foundation, foundation or company holding funds in domestic and/or offshore commercial bank(s).

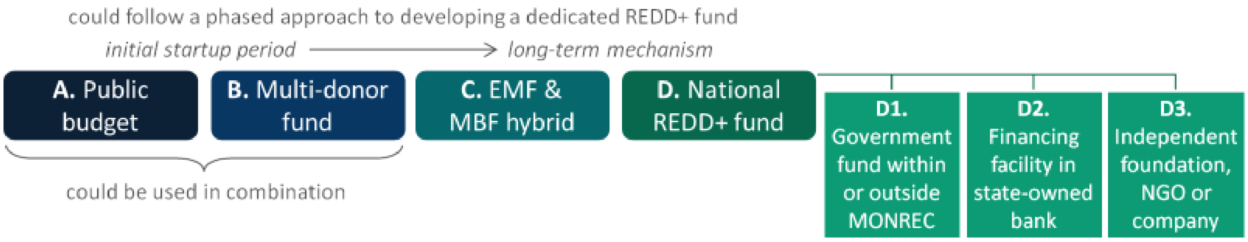
Needs and options for a modular and/or phased approach

Only two of the four basic financial management systems that have been outlined above are currently fully operational in Myanmar: public budget (option A) and multi-donor programme funds (option B). Other forms of extra-budgetary and independent funds (options C and D) are only just beginning to emerge as mechanisms for managing either public or private/donor funding sources. These new fund models typically take some time to set up, as they must undergo (sometimes lengthy) design and approval processes, and involve the establishment of new institutions, regulations, financial management and reporting procedures. Even the EMF and MBF are still at a relatively early stage of development. At the same time, REDD+ funding will take some time to come on track, and to shift from initial investment finance to long-term results-based payments.

For these reasons, it may be prudent to consider a modular and/or phased approach to REDD+ financial management (Figure 8). Public budget (option A) and multi-donor programme funds (option B) are sufficient to meet the immediate needs of managing phase 2 REDD+ investment finance and, if required, the initial phases of phase 3 results-based payments. They could be used to manage startup REDD+ financing and test out modalities for its management and disbursement, while allowing more permanent, dedicated REDD+ funds (options C or D) to emerge over time. This transition would likely take place over the course of several years.

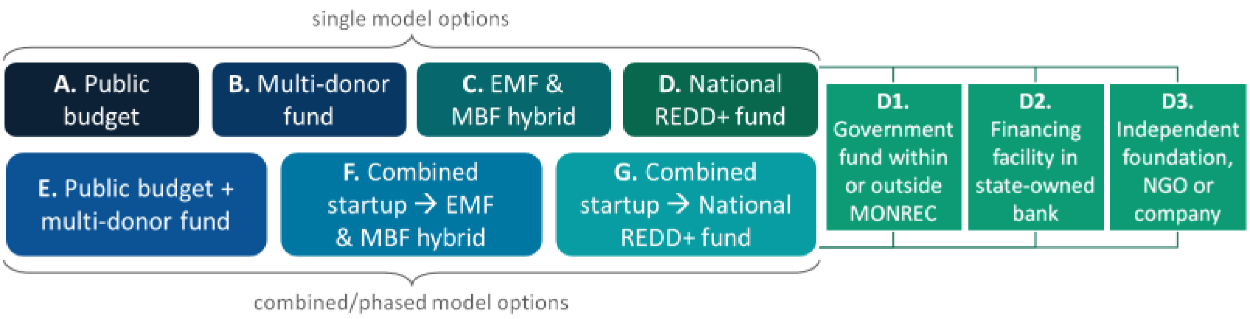
Over this initial startup period, there may also be advantages in considering a modular approach to REDD+ financial management model. As described above, while public budget has certain limitations on disbursing funds outside government and making results-based payments, a multi-donor programme fund would likely still require that funds provided by or destined for government are managed through the public budget. This may require a model which combines the public budget (option A) and an external fund (option B).

Figure 8: Possibilities for combining and/or phasing REDD+ finance management options



Taking these possibilities for a combined and/or phased approach into account adds three potential options for REDD+ financial management to the four single model options identified above (Figure 9). Option E comprises a combined model of public budget and a multi-donor programme fund, while options F and G are phased models which then add in either the EMF/MBF hybrid (option G) or the new National REDD+ fund (option H) as permanent mechanisms to be developed over time.

Figure 9: Shortlist of REDD+ finance management options

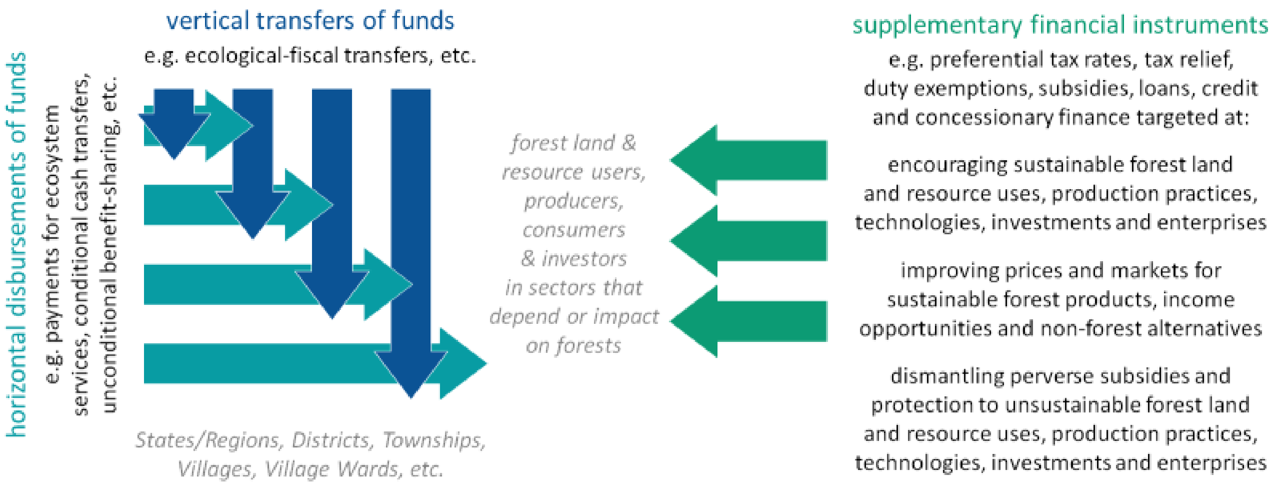


5. Enabling financial conditions & supplementary incentives

Systems for REDD+ finance management need to be designed to enable and facilitate the transfer and sharing of resources across two main axes: a vertical axis of transfers across scales from national to local, and a horizontal axis of disbursements within scales, including within and across communities, households, the private sector and other local stakeholders (Pham et al. 2013). In addition, any financial structure for a REDD+ program should help align incentives for emissions reductions and sustainable forest management across different groups and levels of scale (Madeira et al. 2013). As outlined in Chapter 1, it is also important to ensure that forest land and resource users, as well as the producers, consumers and investors in the sectors that depend or impact on forest cover and quality, are financially able, willing and motivated to support the delivery of REDD+ activities and targets.

The paragraphs below suggest a number of principles, approaches and instruments that could be used to ensure the provision of financial incentives and the fair and equitable sharing of benefits across both horizontal and vertical levels (Figure 10). In principle, the approaches and instruments described below could be applied to any of the REDD+ finance management options suggested above. They are not specific to a particular type of funding model, but rather relate to the different beneficiaries and recipients of REDD+ funding.

Figure 10: Instruments to provide financial incentives and encourage fair and equitable benefit sharing



As already explained in Chapter 1, it lies outside the scope of this assignment to identify the specific channels or mechanisms by which funds will be distributed or benefits shared at the sub-national and stakeholder level. These are separate tasks. The paragraphs below do not relate so much to the choice of REDD+ finance options, but to the future development of benefit sharing mechanisms.

Transfer of funds between administrative levels of scale

It is important to identify the right combination of funding and budgets to facilitate the flow of financial resources to key activities across different spatial scales (Madeira et al. 2013). All of the finance management options identified above require that mechanisms are in place to transfer REDD+ funds from the national level to regions, states, and beyond. It is these decentralised levels of government that will be responsible for implementing many of the on-the-ground activities that are required to reduce forest emissions levels.

Ecological-fiscal transfers are one mechanism which could be used to promote the fair, equitable and transparent sharing of benefits at the sub-national level, as they facilitate fund allocation based on environmental performance (in this case, avoided deforestation and forest degradation, and reduced emissions levels). They also allow for 'horizontal equalisation' between units at the same level to account for differences (and changes) in forest cover and emissions levels. In principle they should also serve as incentives for states, regions and lower-level administrative units to maintain and improve forest cover and to deliver on agreed REDD+ activities, in order to maintain budget funding.

Ecological-fiscal transfer mechanisms can be used in two ways in relation to REDD+. One is to provide a clear and transparent formula for calculating the level of REDD+ funding to be shared, and for varying these payments according to whether (or to what level) forest emissions reduction targets are achieved. The second is to introduce forest-related criteria into the formula used to determine fund transfers from the Union Fund to state/region budgets, additional to the existing development needs and fiscal constraint indicators[10].

The use of ecological-fiscal transfers has the advantage that it builds on the existing 'rule-based' financing model that is already used by MOPF to determine the amount of budget transfers made from national to sub-national levels in Myanmar. It also reflects current practices of the sharing of certain revenues[11] collected in states/regions at a decentralised level via transfers from the Union Fund to state/region budgets, based on the area of collection.

Disbursement of funds across stakeholder groups

In order for REDD+ finance to be effective in reducing forest emissions it must be able to reach the groups that are directly engaged in using and managing forest lands and resources. Systems for REDD+ finance management need to be designed to enable and facilitate fair and equitable benefit-sharing within scales, especially within and across communities, households and other local stakeholders (Pham et al. 2013). This is particularly a concern in relation to phase 3 results-based payments.

At least three types of local-level direct payments to are planned or already being used in Myanmar, and have potential application to REDD+ finance. A system which is based on PES-type principles and approaches lends itself well to providing appropriate (and performance-related) levels of reward or compensation for the delivery of REDD+ activities and targets. This would also support the calls for the development of forest PES found in the 2014 Summary on Nature and Biodiversity Conservation and 2018 Conservation of Biodiversity and Protected Areas Law. The conditional cash transfer mechanisms that are already being used in health, education and disaster risk reduction sectors also offer clear possibilities for distributing REDD+ results-based payments. Thirdly, experience of unconditional transfers also demonstrate the ways in which cash and in-kind benefits can be shared at the grassroots level, across many different groups, even though they are not contingent on delivering particular activities or targets.

While these horizontal fund transfer mechanisms offer opportunities to distribute funds to the grassroots level, in a form and at levels that can serve to fairly and adequately encourage and remunerate activities to reduce forest emissions levels, they are not necessarily equitable. Elite capture, unequal distribution and the

[10] Currently population, poverty index, per capita GDP, land area, ratio of urban: total population and per capita tax collection (see Chapter 2 above).

[11] Currently involving sharing 15 per cent of (non-import) commercial and special goods tax revenues with states and regions, as well as 5 per cent of (non-corporate) income tax, and 2 per cent of stamp duties are shared with DAOs (see Chapter 2 above).

exclusion of already marginal groups frequently remain a problem in relation to REDD+ (Peskett 2011a, TFD 2014), and has also been noted in relation to Myanmar cash transfer programmes (Stokkel 2015, Villarroel 2015). There is also a need to look carefully at the eligibility criteria and targeting, so as to ensure broad socio-economic inclusion (Madeira et al. 2013).

Financial instruments to encourage sustainable forest management and use

As mentioned in Chapter 1, the provision of funding, alone, is unlikely to be sufficient to stimulate wide-scale behaviour change among forest land and resource users, or to influence production, consumption and investment patterns in the sectors that depend or impact on forest cover and quality. The implication is that other financial measures and incentives will also be required, and will need to be rolled out in parallel with the development of any model for REDD+ finance management (Streck 2013, Wong et al. 2016). The aim is to create the financial conditions under which people are encouraged, enabled and possibly even demanded to use and manage forest resources sustainably, and to invest in activities which support (rather than undermine) the achievement REDD+ goals and targets.

A wide range of supplementary instruments can potentially be used to reinforce and supplement REDD+ investment finance and results-based payments, and to encourage a more fair and equitable sharing of benefits (FAO 2018, Karsenty et al. 2012, Madeira et al. 2013). These include measures to make REDD+ more financially attractive, viable and sustainable to forest land and resource users – for example through the use of preferential tax rates, tax relief, duty exemptions, subsidies, loans, credit and concessionary finance. Importantly, they also those relating to the financial conditions that serve to encourage forest conversion, degradation and unsustainable management (Kissinger 2017, MacFarland et al. 2015, Peskett 2011a).

Three main targets for these supplementary instruments can be identified, each is oriented towards addressing a different set of financial drivers and constraints, including:

- Encouraging sustainable forest land and resource uses, production practices, technologies, investments and enterprises;
- Improving prices and markets for sustainable forest products, income opportunities and non-forest alternatives; and
- Dismantling perverse subsidies and protection to unsustainable forest land and resource uses, production practices, technologies, investments and enterprises.

On the one hand, few attempts have as yet been made to mainstream environmental goals into economic policy and planning in Myanmar or to harmonise and align the markets, prices, fiscal, and financial policy instruments that are used to manage and guide activity in ‘development’ and ‘conservation’ sectors (see Emerton et al. 2015, Green Lotus 2015). It has also been noted that other environmental financing mechanisms that might serve to supplement and reinforce REDD+ PAMs are also only in the early stages of development (Emerton 2017). However, as described in Chapter 2, a variety of environmental financing instruments and measures are beginning to be mentioned in national and sectoral policies and plans and to be piloted selectively at the site level (GGGI 2017, Green Lotus 2015). The development of a REDD+ finance provides a valuable opportunities to further develop these.

6. Next steps in developing a REDD+ finance management system

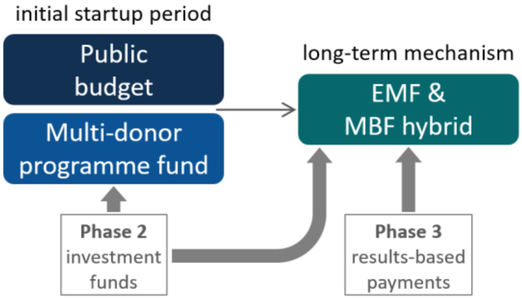
The selected REDD+ finance management option

Chapter 4 laid out a shortlist of seven possible models for REDD+ finance management in Myanmar, comprising four single and three combined/phased models based around the public budget, a multi-donor programme fund, the emerging Environment Management Fund (EMF) and Myanmar Biodiversity Foundation (MBF), and a new national REDD+ fund. All of these options A-G have potential strengths and weaknesses, and each has particular requirements and conditions for successful implementation.

A consultative process was undertaken to review and discuss these options, involving stakeholders from both within and outside government. Following instructions given at the 6th meeting of the National REDD+ Taskforce on January 31, the REDD+ Technical Working Group then convened on 25 February to select and elaborate the model to be taken forward. Various considerations were weighed up, including needs to allow for central and decentralised operations, budgetary and extra-budgetary fund types, public and private finance, domestic and international funding, direct payments and supporting financial instruments, use of existing mechanisms and development of new instruments. The finance management options A to G were assessed against the seven 'must have' and three 'desirable' functions and requirements laid out in Chapter 4. The sum of these weighted criteria was then used to select and recommend the preferred model.

It was determined that a combined and phased approach (option F) would be the most feasible option (Figure 11). Initially, the public budget and a multi-donor programme fund would be used to manage inflows of phase 2 investment funds (options A and B). These mechanisms are already widely-used in Myanmar to manage funding flows to various levels of government, NGOS and CSOs, communities and the private sector. Specific channels for administering and disbursing REDD+ funds can be established and operationalised relatively quickly and easily, without any need for new procedures, institutions or regulations.

Figure 11: The selected REDD+ finance management option



However, over the longer-term, it was considered that more targeted and autonomous mechanisms would be required for managing phase 3 results-based payments. The EMF and MBF, once set up, were seen as an appropriate and cost-effective way of doing this (option C). This arrangement has the great advantage that it serves to support and strengthen planned and existing environmental funds, without duplicating efforts or requiring the creation of new structures and systems. The EMF and MBF will be operating under legal, governance, accounting and reporting procedures that are already designed to meet the needs and requirements of both the Government of Myanmar and external/international donors.

The National REDD+ Taskforce endorsed this recommendation at their 7th meeting, held on 9 April. A roundtable of technical experts drawn from MONREC, MOPF and international organisations was convened immediately afterwards, on 10 April, to further investigate and advise on the selected option. The following sections of this chapter are guided by these deliberations. They lay out the next steps in developing and implementing REDD+ financial management arrangements, including roles, responsibilities, timeline, needs for consultation, capacity-building and recommended actions for risk mitigation. The focus is on what needs to be done over the next 1.5 years, to the end of the current phase of UN-REDD programme funding support to Myanmar.

Additional enabling conditions

The process of scoping out finance management options also led to discussions about legal and policy frameworks, as well as the long-term institutional setup and governance arrangements for REDD+ in Myanmar. The further development and implementation of REDD+ finance management arrangements requires that these issues are addressed. In the absence of an agreed long-term organisational structure for REDD+, the following paragraphs assume the development of an institutional mechanism in line with that suggested during the REDD+ Taskforce meeting and technical expert roundtable. This anticipates a REDD+ Coordination Unit (RCU) that is located in MONREC as a separate unit under the Minister's Office, supported by a REDD+ Technical Working Group, and under the overall guidance and direction of the NE5C.

It should also be noted that, although the topics of fund distribution and benefit-sharing arrangements lie beyond the scope of the current study, members of the REDD+ Taskforce and technical expert roundtable expressed particular interest in two instruments. One was to develop ecological-fiscal transfers as a possible mechanism for the vertical distribution of Phase 3 REDD+ funding. The other was to support the use of payment for ecosystem services (PES) and other forms of conditional and unconditional cash payments as a means of delivering results-based payments to forest land and resource users. The need to set in place other financial, fiscal and economic incentives in support of avoided deforestation and forest degradation was also recognised, and recommended as an area that should be followed up by MOPF in consultation with MONREC.

Developing a phase 2 REDD+ investment programme

As described in Chapter 1, calculating financing needs, negotiating payments and mobilising resources are all critical stages in the REDD+ financing chain. Although the topic of sourcing funds is beyond the ambit of the current assignment, it is a vital prerequisite to operationalising any REDD+ finance management system. A very first next step is therefore to determine what Myanmar's REDD+ funding needs and financing requirements are, and to communicate this to concerned stakeholders and potential donors. Unless this is done, it will be difficult to secure sufficient funding to enable the delivery of REDD+ activities and outcomes: as outlined in Chapter 1, a wide range of cash and in-kind support is required to finance REDD+ PAMs. In addition to looking at needs and opportunities for generating funds, it will be important to address the other financial constraints to reducing forest degradation and deforestation. In brief, this requires that a 'REDD+ investment programme' is developed to supplement the REDD+ Strategy (Figure 12).

Figure 12: Next steps in developing the Phase 2 investment programme

It is important to distinguish between the REDD+ Strategy and investment plan. Although the overall goal and content of the two documents will be the same, their purpose and target audience (and thus structure and presentation style) differ. The strategy serves as a technical and programmatic document, and is phrased in these terms. In contrast, the investment programme should seek to translate the stated REDD+ PAMs into a consolidated, costed portfolio of bankable proposals which can be marketed to potential donors and investors within the Myanmar government, international community and private sector. It should be relatively short and succinct, presented clearly, attractively and in an easy-to-read format. The focus is on laying out priority investments, elaborating their rationale, scope and intended outcomes, and identifying the budget and other resources that are required to operationalise and implement them.

There are four iterative steps involved in developing a REDD+ investment programme, which can be accomplished within 6 months, once the REDD+ strategy is finalised. It is important to note that these are not only concerned with generating 'products' (i.e. the investment portfolio and documentation), but also with facilitating the 'process' aspects that are necessary to secure buy-in and support for the investment programme, to build capacity and awareness among REDD+ managers and partners, and communicate the REDD+ programme and its financing needs effectively. Process-oriented elements such as participation, consultation, dialogue and joint planning therefore form a key part. These steps include:

1. **Cost the REDD+ strategy**
   This requires calculating the costs of delivering the PAMs laid out in the REDD+ strategy, as well as establishing and operating the RCU and associated structures. In addition, it will be necessary to build up a clear idea of the different agencies, sectors and groups that will be responsible for delivering REDD+ activities and outcomes, so as to be able to ascertain who will incur these costs, and thus where funds will need to be targeted and directed. This exercise should be led by UN-REDD. While it can be undertaken largely as a desk exercise, it is desirable that – at the least – core members of the REDD+ Taskforce and/or Technical Working Group are involved. Not only will this improve the quality and accuracy of budgeting, but it will also serve the important purpose of building understanding, ownership and support for the REDD+ investment planning process.

2. **Identify REDD+ financing availability and gaps**
   Having established the costs of implementing the REDD+ strategy and RCU, it is now possible to work out whether additional resources will be required. At a minimum, this involves conducting a simple REDD+ expenditure review. This would scrutinise donor programmes, NGO/CSO projects and sectoral work programmes in order to identify where REDD+ activities are already budgeted for, where budgets and workplans could be aligned or reoriented to deliver them, or where future budgets and funding could be used or transferred to support them. It should be possible to develop a matrix of PAMs and RCU costs, map these against different organisations' and agencies' programmes and budgets, and pinpoint where, for what or whom there are funding gaps. Ideally this would also involve a review of financial, fiscal and economic policy instruments, in order to identify how these lend financial support to (or act against) deforestation and forest degradation. This would show where there may be needs for policy reform to overcome REDD+ financing constraints. As with the costing process, the expenditure review and funding gap analysis would benefit from being carried out as a consultative exercise, with the direct involvement of MONREC, other sectoral agencies, NGOs/CSOs and donors.

3. **Develop costed investment programme and portfolio of bankable proposals**
   This involves organising the unfunded REDD+ activities into a investment programme, with a unified rationale, goal and intended results. This will be composed of a portfolio of bankable projects of varying sizes, dealing with different themes and topics. Each will have a clear scope, focus, activities and outcomes, and lead implementing partners. While these will mirror what is laid out in the REDD+ strategy, they will be organised and presented somewhat differently. It is unlikely that each project

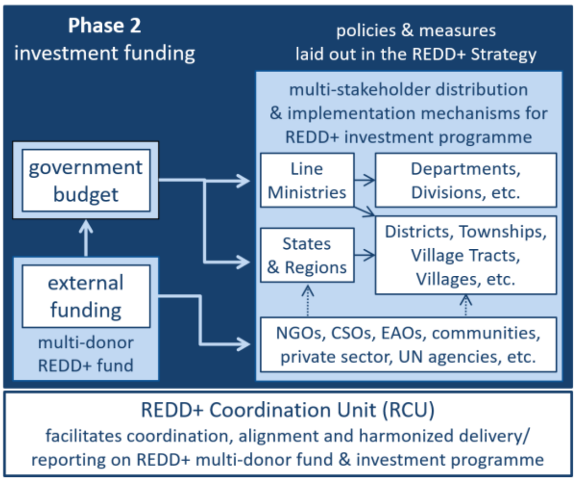
will correspond neatly to a single PAM – rather they will be developed as 'marketable' proposals that are likely to have the greatest appeal to potential funders and donors. The aim is to present a consolidated portfolio of potential investments that can serve to mobilise financial support for REDD+. Experience in other sectors and countries shows that this is best initiated through a short (1-2 day) multi-stakeholder planning meeting, where key agencies are brought together to brainstorm on how the investment programme and portfolio should be structured and prioritised. In this context, it is appropriate that UN-REDD should convene the workshop, and that the main participants should be drawn from the REDD+ Taskforce and Technical Working Group. As above, this serves a number of purposes – enhancing the quality and credibility of the output, strengthening support and buy-in, and building capacity and awareness. Additional work is then required to take the results of this joint planning exercise forward, refine and develop it into a coherent investment programme, and then ensure that the necessary review, validation and approval is secured.

4. **Compile targeted communications materials, fundraising proposals & engagement strategy**
This will involve compiling the REDD+ investment programme document and associated communications materials, including fundraising proposals. Before doing this, careful thought will need to be given to the most effective strategy for engaging with government, external donors and potential investors, and for convincing them to integrate REDD+ into their programmes and budgets. Some kind of decision-making analysis or institutional context analysis will be required to identify strategic opportunities to leverage decision-making change and mobilise financial resources. While at the present time it is appropriate that UN-REDD take a lead in delivering these analyses and materials, it is worth noting that they should also seek to build approaches and systems that can later be taken up as a core function of the RCU (see below).

Managing phase 2 investment funding: broad architecture & next steps

The selected finance management option for phase 2 funding combines the public budget with a multi-donor REDD+ programme fund. While each deals with different sources and targets (public funding/government spending and external funding/spending outside government, respectively), they are envisaged to fit together within a multi-stakeholder distribution and implementation framework for delivering the REDD+ investment programme (Figure 13). The RCU would facilitate this coordination, alignment, harmonised delivery and reporting, as well as taking a lead on fundraising efforts (initially, until the RCU is established, the UN-REDD programme working together with the REDD+ Taskforce will fulfil this role).

Figure 13: Next steps in developing the Phase 2 finance management system



Next steps in developing the Phase 2 finance management system:

1. Develop REDD+ investment programme
2. Design and agree RCU functions, governance structure, organizational set-up, staffing, etc.
3. Elaborate RCU role and responsibilities in multi-donor REDD+ fund coordination and fundraising
4. Secure cabinet approval for REDD+ strategy, RCU and associated budget allocation
5. Facilitate integration of REDD+ PAMs into sectoral budgets and work programmes
6. Convene external donor roundtable to market REDD+ investment programme
7. Prepare and follow-up on REDD+ funding proposals
8. Undertake capacity and awareness-raising on sustainable financing options and needs among RCU, REDD+ taskforce and sectoral line agencies

A multi-donor REDD+ fund could take various forms. This needs to be determined, based on further scoping of funding needs, opportunities and donor/investor preferences. It is most likely that it will evolve as a mechanism or facility within the RCU which encourages and coordinates donors to direct resources to the REDD+ investment programme, while still allowing for projects to be funded directly and implemented separately by different organisations. These arrangements may include REDD+ projects or programmes that are funded and coordinated through the RCU. Another option is to set up a dedicated REDD+ pooled fund or trust fund through which donors would channel funding in support of REDD+, managed in partnership with the RCU. This is considered less likely in Myanmar's current funding climate, although remains a possibility.

Most of the steps involved in planning for phase 2 implementation should be carried out over the next year, so as to prepare for investment funds to be received from 2020 onwards. They include:

1. **Develop REDD+ investment programme**
   This is described in the section above, and is suggested to take place over the next 6 months. An additional 3 month period should be allowed for the investment programme to be approved.

2. **Design and agree RCU functions, governance structure, organizational set-up, staffing, etc.**
   As explained above, this is a prerequisite to developing the Phase 2 finance management system, and to fundraising for the REDD+ investment programme. It needs to be carried out as a matter of priority, as a separate exercise led by UN-REDD and the REDD+ Taskforce. Ideally, a basic model for the RCU will be drafted in the next 3 months. This will lead into an official approval process.

3. **Elaborate RCU role and responsibilities in multi-donor REDD+ fund coordination and fundraising**
   Having developed a REDD+ investment programme and agreed the broad structure, functions and set-up of the RCU, it will be possible to think in more detail about the RCU's role and responsibilities in coordinating REDD+ funding and fundraising. Further scoping of the setup of the multi-donor REDD+ fund can also take place at the same time. As discussed above, possible alternatives range from a broad coordination and fundraising facility through to a dedicated pooled fund or trust fund. UN-REDD, working with the REDD+ Taskforce, should facilitate this process as soon as a RCU model has been defined. Until the RCU is established, UN-REDD will also likely take on the functions that are identified.

4. **Secure cabinet approval for REDD+ strategy, RCU and associated budget allocation**
   It is important to emphasise that high-level approval for the REDD+ strategy is required before phase 2 REDD+ financing can be implemented at any significant scale. This is also a precondition for requesting government budget for REDD+ activities and the RCU. Once Cabinet has issued an approval letter, MONREC will be in a position to prepare a budget proposal and negotiate with MOPF to obtain funding. This process is largely the responsibility of MONREC, in consultation with MOPF and with support from UN-REDD. Ideally, this process should be completed before the end of March next year, so as to allow REDD+ and the RCU to be included in MONREC's 2020/21 budget request.

5. **Facilitate integration of REDD+ PAMs into sectoral budgets and work programmes**
   The government budget is anticipated to form a core part of Phase 2 investment funding. While some of these funds are expected to come from new allocations to the REDD+ investment programme and RCU, there is also considerable potential (and need) to mainstream REDD+ activities and outcomes into the existing budgets and workplans of MONREC and other line ministries, as well as regional and state agencies. Continuing the work initiated under the investment planning process to identify REDD+ financing availability, gaps and opportunities (see above), there will be a need to liaise with different government agencies to demonstrate the opportunities associated with aligning and tailoring their spending towards REDD+ goals. This requires efforts to 'make the case' for REDD+ in terms of its ability to contribute towards other sectoral goals and priorities, to generate value-added, cost savings and damages avoided. Although this will ultimately be a responsibility of the RCU, it is something that

should be led by UN-REDD (working through the REDD+ Taskforce) in the interim. It should commence as soon as the REDD+ investment programme has been drafted, and involve a combination of formal representations and negotiations, face-to-face dialogues and joint planning.

6. **Convene external donor roundtable to market REDD+ investment programme**
   In addition to the efforts made to promote sectoral mainstreaming and increase public budget allocations, it will be necessary to work to generate new funding for REDD+ from external sources. Once the REDD+ investment programme has been drafted, an engagement strategy defined and communications materials developed, a donor roundtable should be convened. This could possibly be combined with the launch of the REDD+ investment programme. It would have the goal of securing commitments from the international community to contribute phase 2 investment funding. It should be led by UN-REDD, working through the UNDP country office and in collaboration with MONREC and MOPF to organise a high-level event for bilateral, multilateral and other international funding agencies. Considerable (and strategic) efforts will also likely need to be made by UN-REDD to prepare the ground for this event by meeting with individual donors, engaging their interest and negotiating possible areas of support. It will also be important for the Government of Myanmar to have publicly identified the REDD+ Strategy and investment plan as a high priority for the country.

7. **Prepare and follow-up on REDD+ funding proposals**
   Efforts will be required to follow-up on any interest shown at the donor roundtable and elsewhere by potential REDD+ funders and investors. Concrete proposals will need to be prepared, discussed and negotiated. As well as performing a coordinating and communications role, it is likely that UN-REDD may also need to take responsibility for working with implementing agencies to prepare these proposals and act as a link to potential donors. This will be a continuing activity, and so initial efforts should also be seen as an opportunity to build capacity among REDD+ partners. Over the longer-term, fundraising and donor liaison are envisaged as core functions that will be taken on by the RCU.

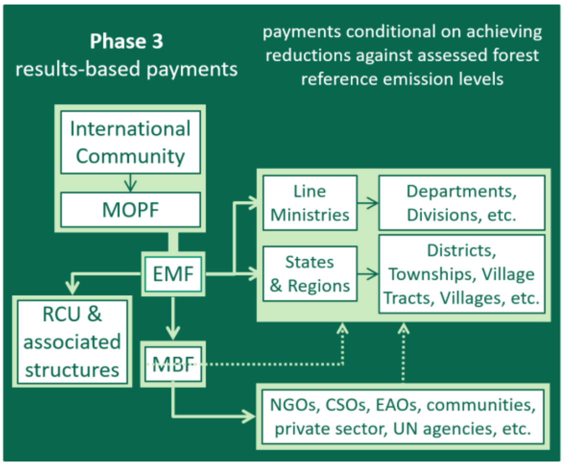
8. **Undertake capacity and awareness-raising on sustainable financing options and needs among RCU, REDD+ taskforce and sectoral line agencies**
   At present, understanding of REDD+ funding, other environmental finance mechanisms and targeted, sector-based investment planning is relatively weak among the individuals and institutions that are involved in developing REDD+ finance management systems in Myanmar, or will ultimately be responsible for implementing them. There is a need to build this capacity and awareness, particularly among members the National REDD+ Taskforce and Technical Working Group (MONREC, MOPF, MOALI, MEB, etc.). While this can to some extent be accomplished alongside and in support of the processes that are ongoing to develop the phase 2 and phase 3 finance management systems (for example, the investment planning exercise and preparation of funding proposals), there will likely be a need to provide more targeted training and learning opportunities over the next year and a half.

Managing phase 3 results-based payments: broad architecture & next steps

For now, the exact scope, amount or timing of phase 3 results-based payments remains fairly uncertain and relatively far in the future. The EMF and MBF (the basis of the selected long-term REDD+ finance management mechanism) are also still under development. For these reasons, the focus of phase 3 finance planning over the next 1.5 years should remain on ensuring that the EMF and MBF are designed in such a way as to be able to receive and administer REDD+ results-based payments. It is however desirable that the key steps outlined below are taken as early as possible, as the REDD+ finance model may also shift to these long-term arrangements during phase 2, meaning that the EMF and MBF are also used to manage REDD+ investment funding.

The exact mechanics of the phase 3 finance management model will of course depend on how and from where results-based payments are provided to Myanmar. For now it is assumed that funds will most likely come in from the international community via the United Nations Framework Convention on Climate Change (UNFCCC). This means that on first entry into the country they will be received and administered by MOPF, on behalf of the Government of Myanmar (Figure 14). All of some of the payments[12] would then be transferred to the EMF through the normal public budget mechanism[13]. REDD+ funds would be horizontally and vertically transferred from the EMF to other government agencies (including the RCU). Funds would be channelled to the MBF to be further distributed on to groups and organisations outside government.

Figure 14: Next steps in developing the Phase 3 finance management system



Next steps in developing the Phase 3 finance management system:

1. Determine needs and options for establishing EMF and MBF as designated REDD+ finance management structures
2. Consult further with EMF on integration of REDD+ fund management
3. Consult further with MBF on integration of REDD+ fund management
4. Develop a viable contingency plan for the management of phase 3 results-based payments

Various steps are involved in planning for phase 3 (and possibly latter stages of phase 2) implementation, the timing of which will largely be determined by ongoing EMF and MBF development processes[14]. They include:

1. **Determine needs and options for establishing EMF and MBF as designated REDD+ finance management structures**
   Although the Government of Myanmar receives a variety of international funds which are earmarked for certain institutions or purposes, using the EMF and MBF as channels for administering and distributing (likely *ex-post*) REDD+ results-based payments introduces a model for which there is as yet no precedent. Although, as a government-run fund, the EMF would be eligible to receive funds directly from MOPF, it may be necessary to create a separate financial regulation for REDD+ results-based payments. This would explicitly mention (and enable) EMF as a fund administrator and RCU as the investment programme coordinator. The onward movement of funds to the MBF might also require a new type of transfer mechanism or additional regulations. Currently, as explained in Chapter 2, there is only very limited provision for public funds to be transferred outside government (the main mechanism is to issue procurement or service contracts). It will be necessary for UN-REDD and the REDD+ Taskforce to consult further with MONREC, MOPF and the Attorney-General's Office about the best way forward. This should be undertaken as soon as possible.

2. **Consult further with EMF on integration of REDD+ fund management**
   The EMF design is currently being finalised and is due to soon be submitted for approval to Cabinet. Draft rules are also under preparation to govern its operation and mandate. These need to enable the use of the EMF and MBF as designated mechanisms for administering REDD+ funding – including, for

[12] It is possible that MOPF may decide to retain a portion of the results-based payments as a 'management fee', to be used as direct budget support to key line agencies or sub-national authorities, or to finance a system of national-level fiscal incentives and policy instruments in support of avoided deforestation and forest degradation.

[13] EMF will also be the recipient of various other (non-REDD+) streams of environment-related earmarked funds and fiscal revenues from MOPF.

[14] MONREC plans that the EMF would be operational by the end of 2019, while it is anticipated that the MBF will be in place some time in 2020.

example, the specification of REDD+ funding as an allowable funding source, the creation of a REDD+ sub-fund or window, and the clarification of appropriate governance and decision-making arrangements for REDD+ fund allocation. In addition, it will be necessary to ensure that the MBF is recognised as an eligible recipient and/or service provider for the EMF in relation to managing REDD+ funding flows outside government[15]. As above, UN-REDD and the REDD+ Taskforce should commence these discussions as soon as possible, before the EMF structure and rules are finalised.

3. **Consult further with MBF on integration of REDD+ fund management**
   Similarly, there is a need to ensure that the design of the MBF allows for REDD+ funding. This includes specifying REDD+ as an allowable funding source and target, building results-based payments into the fund design structure, and clarifying REDD+ governance and decision-making arrangements. Again, this should be initiated immediately, before the MBF structure and rules are finalised.

4. **Develop a viable contingency plan for the management of phase 3 results-based payments**
   Although there are a number of risks to developing the identified REDD+ finance management system (not least of which is the possibility that results-based payments will not be forthcoming at any substantive level), one important area of uncertainty concerns the emergence of the EMF and MBF. Neither fund is yet operational, even though both are in the final stages of design and development. It is necessary to decide how best to mitigate (and, if necessary, respond to) this risk – in other words to come up with a contingency plan for managing phase 3 payments, in case the EMF and/or MBF do not materialise. The development of a national REDD+ fund (option D) has already been identified as a viable alternative. It would be prudent for the REDD+ Taskforce to formally agree on a 'second-best' option and contingency plan, in case the EMF and MBF do not prove to be viable mechanisms.

Timeline for further actions

Figure 15: Checklist & timeline of next steps in developing a REDD+ finance management system

	2019			2020			
	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Next steps in developing the Phase 2 finance management system							
1. Develop REDD+ investment programme							
2. Design and agree RCU functions, structure, organisation, staffing, etc.							
3. Elaborate RCU role & responsibilities in multi-donor REDD+ fund							
4. Secure cabinet approval for REDD+ strategy, RCU and budget						*establish RCU*	
5. Facilitate integration of REDD+ PAMs into sectoral budgets							
6. Convene external donor roundtable							
7. Prepare and follow-up on REDD+ funding proposals							
8. Undertake capacity and awareness-raising on sustainable financing							
Next steps in developing the Phase 3 finance management system							
1. Determine designation of EMF & MBF as REDD+ finance structures		*develop REDD+ finance regulation/procedure*					
2. Consult further with EMF on integration of REDD+ fund management							
3. Consult further with MBF on integration of REDD+ fund management							
4. Develop a contingency plan for the management of phase 3 payments							

[15] The EMF is currently seen primarily as a mechanism to retain, administer and distribute funds within government. Although it is also planned to serve as a funding mechanism for NGOs, CSOs and the private sector, this was not originally envisaged to be part of its initial establishment phase.

References

Addison, D., Rab, H., Boothe, R., Sondergaard, L., Chawla, M. and K. Nthara (2015) Realigning the union budget to Myanmar's development priorities: public expenditure review. World Bank, Washington DC.

Alianza MéxicoREDD+ (undated) Elements and Recommendations for the Design of a Benefit Distribution Mechanism for REDD+ in Mexico. Policy Brief, The Nature Conservancy, México City.

Amazon Fund (2018) Activity report 2017. Amazon Fund, Brasilia.

Anon (undated) Study on benefit sharing of REDD+ in Myanmar. UN-REDD Programme, UNDP Myanmar Country Office and Ministry of Natural Resources and Environmental Conservation, Nay Pyi Taw.

Aquino, A. and B. Guay (2013) Implementing REDD+ in the Democratic Republic of Congo: An analysis of the emerging national REDD+ governance structure. Forest Policy and Economics 36: 71-79.

Asia Foundation (2014) Public Financial Management in Myanmar. The Asia Foundation, Yangon.

Bann, C. and May Nwe Soe (2018) Agricultural Financial Flows Assessment, Myanmar: A Scoping Study. UN-REDD Programme, UNDP Myanmar Country Office and Ministry of Natural Resources and Environmental Conservation, Nay Pyi Taw.

Bann, C. and Myo Aung (2018) Forest Financial Flows Assessment, Myanmar: A Scoping Study. UN-REDD Programme, UNDP Myanmar Country Office and Ministry of Natural Resources and Environmental Conservation, Nay Pyi Taw.

Bauer, A., Hein, A., Htay, K., Hamilton, M. and P. Shortell (2018) State-Owned Economic Enterprise Reform in Myanmar: The Case of Natural Resource Enterprises. Renaissance Institute and Natural Resource Governance Institute, Yangon.

Bauer, A., Shortell, P., and L. Delesgues (2016) Sharing the Wealth: A Roadmap for Distributing Myanmar's Natural Resource Revenues. Natural Resource Governance Institute (NRGI), Yangon.

Busch, J. (2015) Incentivising states to conserve forests. http://www.ideasforindia.in/topics/human-development/incentivising-states-to-conserve-forests.html accessed 20 November 2018.

Busch, J. (2018) Monitoring and evaluating the payment-for-performance premise of REDD+: the case of India's ecological fiscal transfers. Ecosystem Health and Sustainability 4(7): 169-175.

Chokkalingam, U. and E. Maguigad (2016) Draft Concept for a Philippine REDD-plus Financing and Benefit sharing Scheme. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Manila.

Climate Focus (2015) Results-based Finance for REDD+: Emerging approaches. REDD+ Expert Dialogue 7. Prepared by Climate Focus for KfW Bankengruppe. Frankfurt.

Dickenson-Jones, G., De, S. and A. Smurra (2015) State and Region Public Finances in Myanmar. Subnational Governance in Myanmar Discussion Paper No. 8, MDRI, IGC and The Asia Foundation, Yangon.

DRC (2015) REDD+ Investment Plan (2015-2020). Government of the Democratic Republic of Congo, Kinshasa.

Echavarria, M., Vogel, J., Albán, M., and F. Meneses (2003) The Impacts of Payments for Watershed Services in Ecuador. Emerging Lessons from Pimampiro and Cuenca. International Institute for Environment and Development (IIED), London.

EITI (2018) EITI Report for the period April 2015 - March 2016 (Draft). EITI Myanmar – Forestry Sector. Report prepared for the Myanmar EITI Multi-Stakeholder Group by Moore Stephens LLP.

Emerton, L. (2017) Ecosystem service-based financing mechanisms: a review of experiences, lessons learned & options for the Myanmar Environmental Management Fund. WWF Myanmar, Yangon.

Emerton, L. (2017a) Ecosystem service-based financing mechanisms: a review of experiences, lessons learned & options for the Myanmar Environmental Management Fund. WWF Myanmar, Yangon.

Emerton, L. (2017b) National environmental fund structure, operation & management design elements: a review of experiences, lessons learned & options for the Myanmar Environmental Management Fund. WWF Myanmar, Yangon.

Emerton, L. and Aung Kyin (2017) Myanmar environmental financing status and trends: update of expenditures, income & funding sources as of FY 2017/18. WWF and Wildlife Conservation Society, Yangon.

Emerton, L. Phạm Xuân Phương and Hà Thị Mừng (2011) PA Financing Mechanisms In Viet Nam: Lessons Learned and Future Directions. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and Ministry of Agriculture and Rural Development, Hanoi.

Emerton, L., Aung Kyin and R. Tizard (2015) Sustainable Financing of Protected Areas in Myanmar. Wildlife Conservation Society, Yangon.

Enters, T. (2017) Drivers of deforestation and forest degradation in Myanmar. UN-REDD Programme, UNDP Myanmar Country Office and Ministry of Natural Resources and Environmental Conservation, Nay Pyi Taw.

Espinosa, C., 2005, Payment for Water-Based Environmental Services: Ecuador's Experiences, Lessons Learned and Ways Forward. IUCN Water, Nature and Economics Technical Paper No. 2, IUCN — The World Conservation Union, Ecosystems and Livelihoods Group Asia, Colombo.

FAO (2018) REDD+ finance and investments. Food and Agriculture Organisation of the United Nations (FAO), Rome.

FONAFIFO, CONAFOR and Ministry of Environment (2012) Lessons Learned for REDD+ from PES and Conservation Incentive Programs. Examples from Costa Rica, Mexico, and Ecuador. World Bank, Washington DC.

GGI (2017) Green Growth Potential Assessment: Myanmar Country Report. Global Green Growth Institute, Seoul.

GIZ (2005) Environmental Fiscal Reform and National Forest Policies: An overview of forest fiscal revenue systems in 18 countries. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Eschborn.

GIZ (2016) Towards a Philippine REDD+ financing and benefit sharing scheme: Options and operationalization. Policy Paper, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Manila.

GIZ and KfW (2015) Rewarding REDD+ Action and Supporting Low-deforestation Development in the Colombian Amazon. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Eschborn and KfW Development Bank, Frankfurt.

GIZ and TERI (2011) Environmental Fiscal Reforms in India: Where and How? The Energy and Resources Institute (TERI). Delhi.

Green Lotus (2015) Myanmar Action Plan for Green Growth. Myanmar Platform for Dialogue on Green Growth, Green Lotus, Yangon.

Heller, P. and L. Delesgues (2016) Gilded Gatekeepers: Myanmar's State-Owned Oil, Gas and Mining Enterprises. Natural Resource Governance Institute (NRGI), Yangon.

Indufor (2017) Benefit sharing arrangements for Uganda's National REDD+ Strategy: Executive Summary to BSA options assessment. Report to Ministry of Water and Environment, Kampala by Indufor Oy, Helsinki.

Joelene, C. (2016) Myanmar Attempts to Fiscal Decentralization Reform. in GIZ (ed) Collection of Papers on Myanmar's Financial Sector. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Yangon.

Karsenty A. (2012) Financing options to support REDD+ activities, based on a review of the literature. Report for the European Commission DG Climate Action by Centre de coopération internationale en recherche agronomique pour le développement (CIRAD), Paris.

Kissinger, G. (2017) Background report for identifying the drivers of deforestation and forest degradation in Myanmar. UN-REDD Programme, UNDP Myanmar Country Office and Ministry of Natural Resources and Environmental Conservation, Nay Pyi Taw.

Kissinger, G. (2017)Fiscal incentives for agricultural commodity production: Options to forge compatibility with REDD+. UN-REDD Programme Policy Brief No. 7, UN-REDD Programme Secretariat, Geneva.

Kowler. L., Tovar, J., Ravikumar, A. and A. Larson (2014) The legitimacy of multilevel governance structures for benefit sharing: REDD+ and other low emissions options in Peru. Infobrief No. 101, Center for International Forestry Research (CIFOR), Bogor.

Loft, L., Gebara, M. and G. Wong (2016) The experience of ecological fiscal transfers: Lessons for REDD+ benefit sharing. Occasional Paper 154, Center for International Forestry Research (CIFOR), Bogor.

Loft, L., Pham, T. and C. Luttrell (2014) Lessons from Payments for Ecosystem Services for REDD+ Benefit sharing Mechanisms. Infobrief No. 68, Center for International Forestry Research (CIFOR), Bogor.

Lofts, J. (2015) REDD+ Benefit Distribution in Viet Nam. Working Paper No. 1/2015, Centre for International Governance Innovation (CIGI), Waterloo and Centre for International Sustainable Development Law (CISDL), Montreal.

Lynn, T. and M. Oye (2014) Natural Resources and Subnational Governments in Myanmar: Key considerations for wealth sharing. Subnational Governance in Myanmar Discussion Paper No. 4, Myanmar Development Resource Institute Centre for Economic and Social Development (MDRI-CESD) and Asia Foundation, Yangon.

Madeira, E., Kelley, L., Blockhus, J., Ganz, D., Cortex, R. and G. Fishbein (2013) Sharing the Benefits of REDD+, lessons from the field. The Nature Conservancy (TNC), Arlington.

May. P., Veiga Neto, F., Denardin, V. and Loureiro, W. (2002) Using Fiscal Instruments to Encourage Conservation: Municipal Responses to the 'Ecological' Value-added Tax in Paraná and Minais Gerais, Brazil. In Pagola, S., Bishop, J. and N. Landell-Mills (eds) Selling Forest Environmental Services: Market-Based Mechanisms for Conservation and Development. Earthscan Press, London.

McFarland, W., Whitley, S. and G. Kissinger (2015) Subsidies To Key Commodities Driving Forest Loss. Overseas Development Institute (ODI), London.

MONREC (2018) Forest Reference Emission Level (FREL) of Myanmar. Ministry of Natural Resources and Environmental Conservation, Nay Pyi Taw.

MOPF (2017) 2017-2018 Fiscal Year Budget Information (Citizen's Budget). Ministry of Planning and Finance, Nay Pyi Taw.

Mumbunan, S., Ring, I. and Lenk, T. (2012) Ecological fiscal transfers at the provincial level in Indonesia. UFZ Discussion Paper No. 06/2012. Helmholtz Centre for Environmental Research – UFZ, Leipzig.

NRGI (2016) Who gets Myanmar's oil and gas revenues? Understanding MOGE's 'other accounts'. Natural Resource Governance Institute (NRGI), Yangon.

Oo, Z., Joelene, C., Minoletti, P., Phyu, P., Saw, K., Win, N., Oye, M. and A. Smurra (2015) Fiscal Management in Myanmar. ADB Economics Working Paper Series No. 434, Asian Development Bank, Manila.

Pagiola, S. (2005) Payments for Environmental Services in Costa Rica. Paper prepared for ZEF-CIFOR workshop on Payments for Environmental Services in Developed and Developing Countries, Titisee.

Peskett, L. (2011a) Benefit sharing in REDD+: Exploring the implications for poor and vulnerable people. World Bank and REDD-net, Washington DC.

Peskett, L. (2011b) REDD+ Benefit Sharing in Indonesia. The World Bank, Washington DC.

Pham, T., Bennet, K., Vu, T., Brunner, J., Le, N. and D. Nguyen (2013) Payments for forest environmental services in Vietnam: From policy to practice. Occasional Paper 93. Center for International Forestry Research (CIFOR), Bogor.

Pham, T., Brockhaus, M., Wong, G., Le, N., Tjajadi, J., Loft, L., Luttrell, C. and A. Assembe Mvondo (2013) Approaches to benefit sharing: A preliminary comparative analysis of 13 REDD+ countries. Working Paper No. 108, Center for International Forestry Research (CIFOR), Bogor.

Podvin, K., Sandoval, M., Gutiérrez, C. and C. Schneider (2017) Final project report: Facilitating REDD+ benefit sharing in Peru. International Union for the Conservation of Nature (IUCN), Quito.

Ring, I., May, P., Loureiro, W., Santos, R., Antunes, P. and P. Clemente (2011) Assessing Fiscal Transfers for Conservation Policies and their Role in a Policy Mix. Paper presented at 9th International Conference of the European Society for Ecological Economics, Istanbul.

Shotton, R., Yee, Z and K. Oo (2016) State and Region Financing, Planning and Budgeting in Myanmar: What are the Procedures and What are the Outcomes? Renaissance Institute and Asia Foundation, Yangon.

Stokkel, I. (2015) Developing scalable and transparent benefit payment systems in Myanmar. Note 12, Myanmar Social Protection Notes Series, World Bank Office Yangon.

Streck, C. (2013) The financial aspects of REDD+. In Lyster, R., MAcKenzie, C. and C. McDermott (2013) Law, Tropical Forests and Carbon: The Case of REDD+. Cambridge University Press.

TFD (2014) Country Options for REDD+ Benefit- Sharing: Insights from TFD's Multi-Stakeholder Dialogue Initiative. TFD Publication No. 8, The Forests Dialogue, Yale School of Forestry and Environmental Studies, New Haven.

Thet Aung Lynn and Oye, M. (2014) Natural Resources and Subnational Governments in Myanmar: Key considerations for wealth sharing. Subnational Governance in Myanmar Discussion Paper Series No. 4, International Growth Centre, Centre for Economic and Social Development, Myanmar Development Resource Institute and The Asia Foundation, Yangon.

UN-REDD (2013) Myanmar REDD+ Readiness Roadmap. UN-REDD Programme, UNDP Myanmar Country Office and Ministry of Natural Resources and Environmental Conservation, Nay Pyi Taw.

UN-REDD (2015a) Development of a National Forest Monitoring System for Myanmar. UN-REDD Programme, UNDP Myanmar Country Office and Ministry of Natural Resources and Environmental Conservation, Nay Pyi Taw.

UN-REDD (2015b) Development of a National Forest Monitoring System for Myanmar: Extended Summary. UN-REDD Programme, UNDP Myanmar Country Office and Ministry of Natural Resources and Environmental Conservation, Nay Pyi Taw.

UN-REDD (2015c) Forest (Emissions) Reference Level action plan for Myanmar. UN-REDD Programme, UNDP Myanmar Country Office and Ministry of Natural Resources and Environmental Conservation, Nay Pyi Taw.

UN-REDD (2016) Guidelines for Stakeholder Engagement. UN-REDD Programme, UNDP Myanmar Country Office and Ministry of Natural Resources and Environmental Conservation, Nay Pyi Taw.

UN-REDD (2017) Myanmar REDD+ Safeguards Roadmap. UN-REDD Programme, UNDP Myanmar Country Office and Ministry of Natural Resources and Environmental Conservation, Nay Pyi Taw.

Verma, M., Nsgandhi, D., Mehra, S., Singh, R., Kumar, A. and R. Kumar (2014) High Conservation Value Forests: An Instrument for Effective Forest Fiscal Federalism in India. Prepared for the Fourteenth Finance Commission of India by the Indian Institute of Forest Management (IIFM), Bhopal.

Villarroel, M. (2015) Developing scalable and transparent benefit payment systems in Myanmar. Note 5, Myanmar Social Protection Notes Series, World Bank Office Yangon.

Wong, G., Angelsen, Q., Brockhaus, M., Carmenta, R., Duchelle, A., Leonard, S., Luttrell, C., Martius C. and S. Wunder (2016) Results-based payments for REDD+: Lessons on finance, performance, and non-carbon benefits. Infobrief No. 138, Center for International Forestry Research (CIFOR), Bogor.

World Bank (2013) Myanmar Public Financial Management Performance Report. World Bank, Washington DC.

World Bank (2013) Results-based finance for REDD-plus: Lessons learned from the Forest Carbon Partnership Facility and the BioCarbon Fund. Carbon Finance Unit, World Bank, Washington DC.

World Bank (2017) Myanmar Public Expenditure Review 2017: Fiscal Space for Economic Growth. World Bank, Yangon.

WWF (2013) WWF Guide to Building REDD+ Strategies: a toolkit for REDD+ practitioners around the globe. Forest and Climate Initiative, WWF International, Gland.

WWF (2018) Myanmar Environmental Management Fund: proposed design option. WWF Myanmar, Yangon.

WWF and UNDP (2018) Scoping study: needs, considerations & options for the design of Myanmar's Environmental Management Fund. WWF Myanmar and UNDP Myanmar, Yangon.