Chapter 2

Achieving stable and sustainable development

This chapter discusses the policies being undertaken by Myanmar which aim to achieve stable and sustainable development and identifies issues for further attention, particularly in relation to building up institutional capital. It focuses on four priority areas: establishing sound frameworks for macroeconomic and financial stability; strengthening the rule of law; achieving environmentally sustainable development; and creating a level playing field for the private sector. The section on macroeconomic stability examines the country's financial sector and frameworks for monetary, exchange rate and fiscal policies. The discussion on the rule of law assesses the reforms and legislative changes underway as well as the progress made in strengthening voice, accountability and transparency. Next, the degradation of Myanmar's natural resources, the sources of pressure on these resources and the country's legal framework and institutions for environmental policy are discussed. The section on private sector initiatives describes the characteristics of Myanmar's business sector before turning to examine the legal and regulatory frameworks governing private initiatives. The chapter ends with an examination of Myanmar's human and physical capital stocks.

Igniting more rapid growth is only the beginning of the development process facing Myanmar. Growth will need to be stable and sustained over the longer term if the country's potential is to be realised. Success in achieving stable and sustainable growth will require continuing and often difficult economic and institutional changes in macroeconomic and structural capabilities and policies. Many countries have experienced rapid growth at early stages of their development only to see growth falter at later stages because of the failure to undertake the appropriate reforms to achieve these necessary changes.

Stable and sustainable development rests on physical, human, institutional and social capital. These last two types of capital, institutional and social, are deeply entwined: better institutions require more accountability and voice, while improved levels of trust will depend on institutional performance. Myanmar particularly needs to accumulate institutional and social capital, the lack of which is a major binding constraint to its development.

The limited amount of institutional and social capital originates in the country's history. Over the past century, none of the systems the country embraced needed a sophisticated institutional basis, let alone one built on the principles of democracy and a market economy. In the colonial era, when institutions and the administrative system were adopted on the basis of the Indian model, many bureaucrats from India were brought into the country. In fact, the then Burma acquired by the British Empire after the third Anglo-Burmese War in 1885 was administered under British India and only the liberation movements in the 1930s turned it into a separately administered colony in 1937. With the declaration of independence in 1948 and after a decade-and-a-half of internal instability, the old system was swiftly replaced by the command-and-control socialist regime followed by a similarly highly centralised but more repressive system of the military junta in 1988.

With the advent of the new regime in 2011 and a democratic political system, the weight of history and tradition in shaping the new institutions is very low. This provides an opportunity to choose institutions that best fit the path of an opening and democratising economy.

This chapter discusses the policies that are being pursued by Myanmar to strengthen the capabilities essential to stable and sustained development and the further problems that need to be overcome. The top priorities are: *i)* the establishment of effective and sound frameworks for macroeconomic and financial stability; *ii)* the strengthening of the rule of law; *iii)* the management of natural resources in a sustainable way; and *iv)* the creation of a level playing field for the private sector. Strengthening and development of institutional capital – in terms of government capacities, laws, and regulations – along with social capital will also be vital to build up the needed human and physical capital. The discussion will also highlight the areas where more needs to be done and provide illustrations of experiences of OECD and regional economies that may be useful reference for Myanmar.

Securing macroeconomic stability

Macroeconomic stability requires solid institutional frameworks. It is essential for the development of Myanmar's economy as it provides the foundation for savings and investment and sustainable long-term growth. Several episodes of macroeconomic instability have set back Myanmar's economic development in the past decade, including a damaging banking crisis and bouts of near-hyper inflation. Hence it is not surprising that the authorities have given high priority to creating a more effective framework for macroeconomic stabilisation that is underpinned by the establishment of a sound financial system.

In doing so, the authorities will have to confront a number of challenges head on. Specifically, the starting point is one where the economy is still largely informal, relevant institutions have to be newly set up and the technical capacity to absorb new arrangements and policy approaches has to be developed. In order to prevent the economy from falling prey to macroeconomic instability while the reform process is proceeding, careful sequencing of the various steps is crucial. The authorities are well aware of this need, and appear very open to guidance from the international community in this endeavour.

Three areas of policy stand out as in urgent need of reform. First, the financial system of the country needs to be reformed and expanded so as to be ready for the opening up of the economy to international financial and investment inflows and to be able to channel these flows to the most productive uses. Second, the frameworks, institutions and technical infrastructure for effective monetary and exchange rate policies need to be set up to sustain macroeconomic stability and to deal with external and internal shocks to the economy. Last but not least, a framework and the capabilities to implement fiscal policy – including budget allocation, tax policy and public debt management – have also to be developed. The overarching requirement for these reforms to succeed is that steady progress is made in returning economic activities to the formal economy so that they can be influenced by the financial system and macroeconomic policies.

A stable and efficient financial system is an essential foundation

Myanmar's economy is still largely cash-based, thus foregoing the possibility of more efficient pooling of saving, risk sharing and maturity transformation through the formal financial system. This has ramifications for the allocation of capital and hence the economic growth potential of Myanmar. Remittances, which are an important source of income for large strands of the population, are overwhelmingly made via informal devices (money carriers, Box 2.1), and exchanged for local currency in the informal exchange market. This situation is now beginning to change owing to a number of recent measures, such as the unification of formal and informal market-based exchange rates, the installation of the SWIFT system and contracts with Visa and Western Union.

Box 2.1. **The *hundi* system or the *hawaladhars***

The *hundi* system is a well-developed network of money carriers - often called *hawaladhars* following the Urdu phrase for middlemen - stretching primarily over West and Southeast Asia as well the Middle East and parts of Africa. It is intensely used by migrant workers to send back their savings to their families. The system's major characteristics are efficiency and a lack of a paper trail. Its widespread use is related to high banking fees and avoidance of income taxation at destination, but in Myanmar also stems from the lack of banking connections with most of the outside world during the economic sanctions (see Box 1.3).

The establishment of banking relations with overseas players following the opening of Myanmar will likely reduce the scale of the *hundi* system (both for international and in-country transactions), but in the medium term, further reigning in of transactions outside the formal system is needed. Some other countries' experiences provide some guidance about how this might be accomplished. Some countries with large outward remittance flows ("source countries") require that records be kept of transfers above a certain level (for example, the UAE requires the recording of people transferring over USD 550). Other countries have sought to directly encourage the use of formal financial facilities: Pakistan, for instance, has implemented a loyalty system, where the use of formal channels is rewarded.

Myanmar's banking system is small. It is also poorly connected (e.g. there is no interbank market to speak of) and segmented by industry. Therefore competition between banks is weak. There are several specialised state-owned banks that emerged from a break-up of the financial system in 1975 after it was nationalised in 1969. For example, the Myanmar Foreign Trade Bank was created to handle foreign exchange dealings and the Myanmar Agricultural Bank was formed to service agriculture. Some state banks used to exercise functions that normally are handled by the central bank, such as managing foreign exchange reserves and distributing currency. Authorities have recently moved to bring these functions back to the central bank, starting with the transfer of foreign exchange reserves, which has largely been completed.

A private banking sector does exist in Myanmar (Annex Table A.2.1), but it is small and segmented. A number of private banks emerged from a partial liberalisation of the banking industry in 1988. These banks are mostly connected to private business conglomerates, such as Kanbawza Bank (KBZ), established in 1994, which belongs to the "Myanmar Billion Group" which has interests in gem trading, mining, distribution and real estate. Entry to the banking market was further liberalised in 2010 for domestic banks and four new private banks were granted a license.[1] So far, foreign financial institutions have not been allowed to enter, although this is about to change as an official committee has been set up to examine how foreign banks can be allowed to establish branches in Myanmar. Representative offices have already been allowed to enter recently and subsidiaries are likely to be so in the near future.

Lending by private banks is heavily constrained. It is very difficult for the banks to determine the credit-worthiness of potential borrowers (other than the business conglomerates to which they are connected) as financial information and auditing is very weak and small enterprises are not required to produce financial statements.[2] As a result, banks' assets consist mostly of treasury bonds (which come in maturities of 2, 3 and 5 years and are held to maturity as there is no secondary bond market). Otherwise, lending takes place outside the formal sector in an unregulated shadow financial system, at interest rates that are high in comparison with the banking sector (2.5-3% per month) but unconstrained by formal collateral requirements. An official (regulated) microfinance sector competes with the informal sector, but has so far not replaced it.[3] The lending rate of microfinance institutions is capped at 30% per annum. This ceiling is close to the interest rates prevailing in the informal market. No usury laws exist in Myanmar and there is protection only under civil law for borrowers in the informal markets. Imposing a ceiling on informal lending rates would make it easier under a civil lawsuit to determine whether there is an unfair business transaction. Many countries set such ceilings either as an absolute number or a multiple of the official rate and protection under civil law applies only if the rate applied is within those limits.

A handicap afflicting the development of Myanmar's financial system is a general lack of confidence in banks by the public – one manifestation of the limited social capital mentioned in the last chapter. There is a general suspicion of cronyism in the banking industry, in part due to the bankers' tight connections to business conglomerates and in part resulting from (alleged) money laundering activities. This is a potential source of instability as rumours spread quickly and bank runs can easily take off, as happened in the 2003 banking crisis (Box 2.2). Therefore, a top priority for the authorities is to adopt and enforce high standards of corporate governance, accounting, disclosure and prudential regulation and supervision within sound financial institutions and a sound financial system infrastructure.

Box 2.2. **Myanmar's banking crisis in 2003**

In early 2003 Myanmar experienced a severe banking crisis.* The trigger was the collapse of several informal finance companies that were little more than Ponzi schemes and that brought about direct losses for some authorised banks. Exacerbating the crisis were rumours of large-scale money laundering, bank losses on investments in China and withdrawals of deposits. As the panic began to spread, even the state-owned banks were affected and banks soon found themselves short of liquidity and, as a consequence, attempts were made to maintain reserves by limiting depositors' access to their funds. A flight to currency ensued, which led to a shortage of kyat supplies. The means of exchange created by banks (cheques, remittance facilities, credit and debit cards, electronic transfers) ceased to function.

The banking crisis led to severe disruptions to production and distribution. Though most people in Myanmar did (and still do) not have bank accounts, many employers and businesses did and large numbers of workers went unpaid for considerable periods, as did suppliers and distributors. Even firms earning foreign exchange were harmed, as they could no longer convert foreign exchange earnings into kyat to meet their local costs. The situation was worsened further when the authorities allowed private banks to recall loans, forcing firms and individuals to meet loan calls by selling assets. A growing secondary market in frozen bank accounts emerged, with a going price of between 60 and 80% of face value. The banks themselves continued their efforts to acquire liquidity by selling their properties.

The key reasons why the crisis got out of hand were the failure of the monetary authorities to provide credible and visible liquidity support to stop the crisis and the lack of depositor protection via a deposit guarantee. As a result, the costs of the crisis ended up with the depositors and borrowers. The associated disruption not only led to temporary losses of employment and financial wealth, but also produced a permanent loss of wealth associated with the destruction of physical capital, knowledge and skills. Perhaps worse of all, the faith in monetary and financial institutions, which is a necessary prerequisite for Myanmar's economic development, was severely damaged.

Note: *Although there is little documentation available on the crisis, an attempt to reconstruct the events can be found in Turnell (2003).

Bank lending is also constrained by very strict liquidity and solvency requirements, which were introduced in the wake of the banking crisis. Such requirements include a 10% reserve requirement ratio, a 10% liquidity ratio, a 20% single borrower limit and a 20% related party borrower limit (the latter two limits are relevant because of the tight connections of banks to business conglomerates). In addition, banks have to hold 50% of their paid-in capital in liquid assets. All lending is collateral-based by law (since 2003) and the value of assets used as collateral is calculated with 40% of their market value as the for sale value, which in turn is used as a basis for the amount of lending. The loan-to-value ratio is not regulated, but the banks follow the practice of a maximum of 60-70% (of the for-sale value).[4] In addition, deposit and lending rates are fixed by the central bank in order to secure sufficient margins for banks to remain profitable. However, this leaves banks with little scope, or incentives, to engage in competition. The Central Bank is wary of boosting competition for fear of seeing the small and medium-sized banks fail.

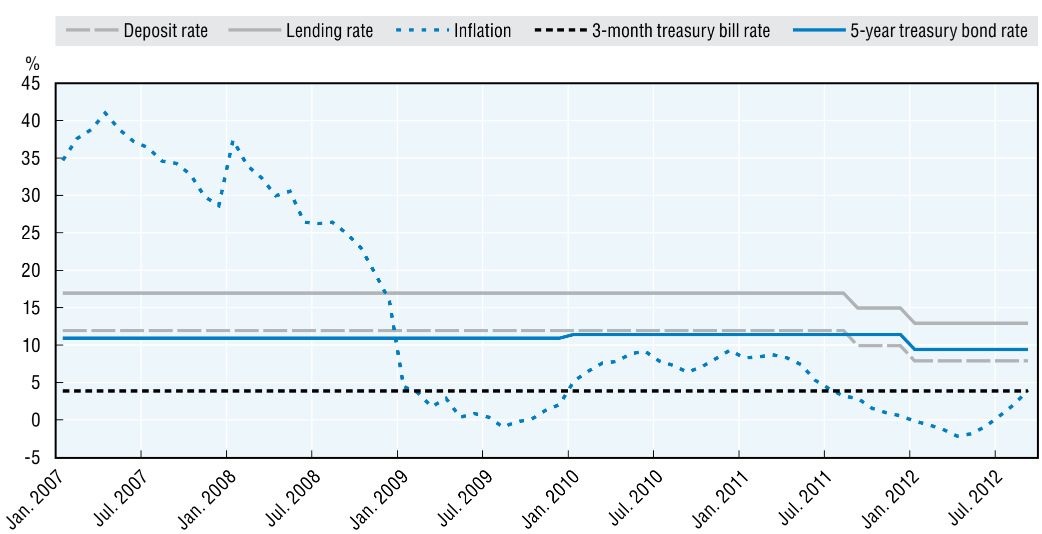
Lending by Myanmar banks is limited to short-term lending and for a few purposes. Long-term lending is envisaged in the near future with an interest rate of 15%. Banks cannot lend for housing purposes except hire purchase lending with a maximum maturity of 36 months. Until recently, they had also been prohibited to lend to the rural sector, thus limiting their scope of activities and increasing their vulnerability to shocks. The rural sector is covered by the Myanma Agricultural Development Bank that has a branch in nearly all townships. Income from non-lending activities such as investment in government bonds and remittance handling constitutes a large share of total income.

As a result of cautious lending policies and significant non-lending activities, the non-performing loan (NPL) rate of private banks is about 2%. State-owned banks have admittedly higher NPL ratios resulting from the lending boom in the 1990s, but the exact size is not disclosed. Those non-performing loans have not been handled as yet, partly because the underlying collateral values are not considered worthy of lawsuits. The Myanma Agricultural Development Bank has a very low NPL ratio currently, but the ratio is expected to rise following the quintupling of the ceiling for loans per acre (from 20 000 kyats to 100 000 kyats).

The authorities aim to modernise the banking industry, and a number of new laws have been or are being drafted to provide a new framework for the sector that will give them more leeway to expand their activities. Moreover, lending and deposit rates have been cut in two steps, along with cuts in the yield on treasury bonds in which banks heavily invest (Figure 2.1). The deposit rate is currently 8% and the lending rate is 13%, securing a 5% margin which has been in place ever since the banking crisis. In order to safeguard the stability of the banking system, the authorities are in the process of strengthening supervision and regulation in conjunction with the IMF and World Bank. As a further safeguard for stability, deposit insurance up to 500 000 kyats (USD 570) per account will be enacted soon, with the ceiling expected to double next year. A credit bureau is to be established soon, paving the way for credit card issuance.

Figure 2.1. **Lending and deposit rates as well as yields on treasury bonds have recently been cut**

Interest rates and inflation



Source: CSO (2012a), *Selected Monthly Economic Indicators*, November 2012, Central Statistical Organization, Ministry of National Planning and Economic Development, Nay Pyi Taw, Myanmar; Datastream (2013), *Datastream* (database); and EIU (2013), *Country Report: Myanmar* (monthly from 2008 to 2013), Economist Intelligence Unit.

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The majority of regulations in banking aim at ensuring stability of institutions and there is little attention paid to efficiency or to consumer protection. Administered interest rates inhibit competition, at least in prices, among private banks, which otherwise could potentially compete and thereby drive efficiency gains. The limited competition is mainly through advertising and providing good customer services. There is no regulation, however, that would require banks to make their products comparable so that customers with low levels of financial literacy could find the product to best fit their needs. Service charges are also administratively set at the same level, although private banks are lobbying for their liberalisation so that they can attract more customers through lower service charges that they achieve by higher efficiency.

The size of the non-bank financial sector is very small in Myanmar, with the insurance sector being a major institution. The monopoly of Myanma Insurance ended in 2013 when 15 new licenses were granted. To avoid brain draining of the best professionals from the state-owned enterprise by the new private entrants, the latter can hire only retired Myanma Insurance employees. While such a measure may be effective in retaining staff, it may induce wrong incentives for those close to retirement and in search of well-paid private jobs.

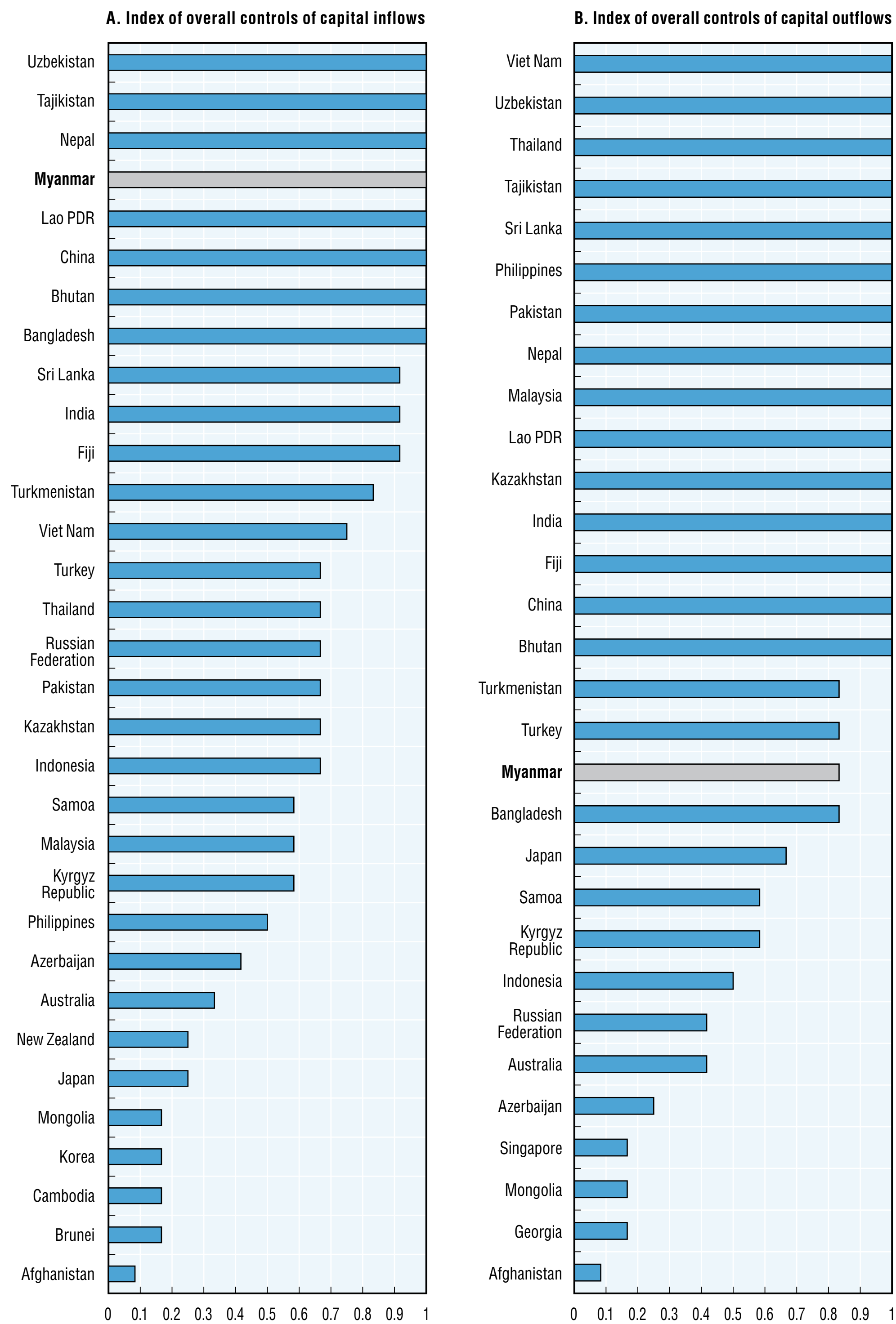
A sound framework for monetary and exchange rate policies is under construction

Moving towards a stable, managed exchange rate regime is expected to underpin Myanmar's growth strategy based on encouraging foreign direct investment (FDI) as a means to import capital, technology and modern production practices, while connecting to the global value chain. Following the examples of other emerging economies in the region, the authorities aim to underpin this strategy by moving towards a stable, managed exchange rate regime. This is part of an overarching strategy to establish a stable macroeconomic environment. While this approach is laudable, it poses challenges for the build-up of a viable domestic industrial base alongside the FDI sector as currency inflows are bound to increase once FDI indeed takes off, possibly giving rise to the so-called Dutch disease.

As it stands, monetary policy in Myanmar pursues the twin goals of price and exchange rate stability. The intermediate targets for monetary policy are monetary aggregates (money in circulation, credit, base money, etc.). Interest rates play a very limited role in monetary policy setting in that these are fixed mostly with the stability of the banking system in mind. This approach is largely in line with the prevailing orthodoxy in low-income countries with weak institutional frameworks, an oligopolistic banking structure and shallow financial markets. The use of extensive central bank intervention in foreign exchange markets to build up foreign exchange reserves to insure against financial instability is also common in such circumstances. Myanmar's international reserves indeed climbed to an estimated USD 6.1 billion, or nine months worth of imports, in 2010/11, sourced mostly by natural gas exports and FDI inflows.

The capital account in Myanmar is still largely closed (Figure 2.2, Panels A and B), and as long as this remains the case, the twin objectives of low inflation and a stable exchange rate are not incompatible.[5] A fundamental prerequisite for monetary policy to be effective in achieving these objectives, however, is to reduce both dollarisation and informality. Dollarisation and informality are strongly intertwined features and stem in part from past experiences that have weakened trust in the national currency and in government policies and impaired the rule of law. Dollarisation fulfils a useful role in that it allows individuals and businesses to avoid risks from high inflation and exchange rate instability. However, the ability of the private sector to switch between local currency and the dollar makes it more difficult for the monetary authorities to control the money supply. Informality, moreover, means that the bulk of money in circulation escapes the official financial system, thus severely limiting the reach of monetary policy as well.

Figure 2.2. **Myanmar implements strict controls on capital flows**



Note: The index of capital control measures takes values between 0 and 1 with higher values indicating higher degree of restrictiveness. It covers the areas of foreign direct investment, portfolio investment and cross-border credit. It is based on the IMF's Annual Report of Exchange Arrangements and Exchange Restrictions and originally constructed by Schindler and extended by the authors until 2010.

Source: Authors' calculations based on IMF (2013), *The Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER)* (database), International Monetary Fund, http://imfareaer.org and Schindler, M. (2009), "Measuring financial integration: A new dataset", *IMF Staff Paper*, Vol. 56, No.1, International Monetary Fund (IMF), www.palgrave-journals.com/imfsp/journal/v56/n1/full/imfsp200828a.html.

StatLink http://dx.doi.org/10.1787/888932857368

Against this backdrop, a host of reforms in the realm of monetary and exchange rate policy are currently being conceived, legislated or implemented, partly in conjunction with international organisations such as the IMF, including:

- A new Central Bank Law to grant the Central Bank of Myanmar (CBM) operational autonomy has been passed. Monetisation of the fiscal deficit, a major source of base money creation and inflation in the past, has already been wound down. First steps are being taken also to set up an interbank market. This market is still incipient, due to a lack of technical capacity and bank technology. The CBM is formally not yet separated from the Ministry of Finance, but is intended to be so once sufficient technical capacity has been built up.

- A new Foreign Exchange Management Law. This law, in effect since April 2012, underpins the unified currency exchange rate, replacing the previous multiple rates that were highly distortive. Previously an official kyat exchange rate of only a fraction of informal market rates was used to subsidise imports by state-owned companies, but heavily penalised exporters. The unified official rate is managed to stay close to a reference rate of 858 kyats per US dollar, based on bids received from the major banks in daily foreign exchange auctions. Foreign exchange controls have been relaxed as part of the currency reform. For current account transactions, permission is no longer needed (profit and salaries can be legally repatriated), and discussions are on-going on opening the capital account. Work on an interbank exchange market is in progress (currently banks can only buy and sell exchange from the CBM). The transfer of foreign exchange reserves, previously managed by two state banks (Myanma Economic Bank and Myanma Foreign Trade Bank) to the CBM has mostly been completed.

- A new Security Exchange Law. The bill has been sent to parliament, with the aim of establishing two stock exchanges before the 2015 elections, in Yangon and Mandalay respectively. However, listing abroad will not be possible and the capital account remains among the most restricted in the region. A secondary market for sovereign debt is also not yet conceived, although there is an incipient primary government bond market. However, investors, which are mainly financial institutions, as noted, hold the securities until maturity given the lack of a secondary market.

- A new Foreign Investment Law. The law, which was first unveiled in March 2012 and is critical to providing the legal foundation for foreign investment in the country, defines the terms on which foreign companies can invest in the country and acquire or form joint ventures with domestic firms. In the longer run, a further opening of the capital account is intended to extend to portfolio investment and cross-border banking once securities markets have been set up and foreign banks are allowed to enter. As discussed in more detail below, such opening of the capital account bears certain risks of instability and makes it all the more important that a framework of sound stabilisation policy is developed. For now, this is not a main concern since a securities market does not exist.

The monetary authorities face several major challenges in the immediate and short run. First, in the absence of secondary sovereign bond and interbank markets and associated price discovery, there is no guarantee that monetary targets and administratively set interest rates are consistent with each other. For instance, if demand for reserves is strong, this is not signalled in interbank markets, and the central bank has no instrument to accommodate demand for reserves via open market policy. Second, in a largely cash-based economy, regulating a small part of reserve money (bank reserves) will not be very effective in steering liquidity in the economy. Third, the large informal economy reduces the role monetary policy can play in influencing cost conditions in financing for economic activities and more generally reduces the scope and reach of monetary policy.

A longer-term challenge Myanmar will have to face is the likelihood of growing currency inflows. Developing countries are usually prone to substantial inflows of foreign currency relative to the size of their economies via a range of channels. Remittances are one possible source, as are exports of natural resources and foreign aid. In the case of Myanmar, the former two are substantial, while the latter is likely to increase in the future with the on-going political transformation and the settlement of its international arrears. Private capital inflows are another potential source of currency inflows that are likely to increase. For now, only foreign direct investment is progressively being promoted. However, other forms of capital imports (such as portfolio investment flows and flows through cross-border banking) may become an issue in the future though they are still small or non-existent given the absence of securities markets and the very limited presence of foreign banks in Myanmar.

Currency inflows pose macroeconomic challenges for the recipient countries. If they stem from foreign portfolio investment or pass through cross border banking they can cause short-run instability as they can be reversed any time. This is not much of an issue in Myanmar at present, as noted. However, even if inflows are relatively stable, they pose longer-term challenges such as the emergence of Dutch disease. This may take the form of an appreciation of the equilibrium real exchange rate, undermining international competitiveness and squeezing domestic production of tradable goods (typically manufacturing) through various channels. Tradable sector profitability will be reduced through higher wages, and skilled labour will be drawn into the non-tradable sector. The higher price of non-traded goods further hurts traded good sector competitiveness if the former serve as input to the latter.

The relevance of the Dutch disease in developing countries is mixed. In an economy where labour is flexible or abundant, small changes in the real exchange rate (i.e. the relative price level of non-traded versus traded goods) will suffice to satisfy whatever additional demand is created for non-traded goods, so the loss in competitiveness will be limited. Even so, activity in tradable industries would be eroded, and the trade balance would deteriorate, making the economy more dependent on external financing. There are possible offsets, depending on the source of the inflow. Specifically, foreign aid or foreign direct investment can raise productivity if it increases the availability of skilled labour or is conducive to the transmission of new technology. The upshot is that policy in the recipient country should aim to ensure that financial inflows, whatever their source, serve the build-up of its productive capacity.

Monetary and exchange rate policy can also help to stem a Dutch disease, provided certain conditions are met. Many emerging and developing economies manage their exchange rate to counter upward pressure on it as part of an export-based growth strategy. This will work only if the liquidity created through exchange intervention, and the associated demand impetus, is sterilised. Otherwise the real (as opposed to the nominal) exchange rate will still appreciate and produce a Dutch disease. Successful sterilisation requires that the central bank has the appropriate instruments at its disposal to carry it out and that foreign currency enters the formal markets initially. It also requires that any upward pressure on yields stemming from sterilisation does not in turn attract further (portfolio) investment inflows from abroad.

At this point, this set of conditions is not met in Myanmar as securities markets are non-existent and bank lending rates are not market-based. Moreover, Myanmar operates tight capital controls. If it keeps those in place while developing markets for securities and foreign exchange – as appears to be the intention – in principle it could successfully run a managed exchange rate regime to underpin an export-based growth strategy. It is important though that whatever foreign exchange does flow in (including through remittances and foreign direct investment) is channelled to productivity enhancing activities, as noted above. It is also essential that occasional bouts of instability in inflows once the capital account is gradually opened can be absorbed. This requires that macro-prudential regulation is up to the mark, a lender-of-last resort function of the central bank well-established, sufficient foreign exchange reserves have been built and are well-managed and sufficient fiscal space is available to deal with major shocks.

A sound fiscal policy framework is crucial for macroeconomic stability as well as development

Sustainable public finances are key to macroeconomic stability as the experience in many countries has shown. A combination of relatively high public indebtedness, (growing) dependence on foreign capital, widespread informality and poverty and an associated limited revenue raising capacity, and a large dependence on resource revenues are a potentially dangerous combination now facing Myanmar. At the same time, there is a structural need for public funding of infrastructure development, poverty relief, education and health care. All this suggests that a thorough fiscal strategy is crucial for the sustainable development of Myanmar's economy.

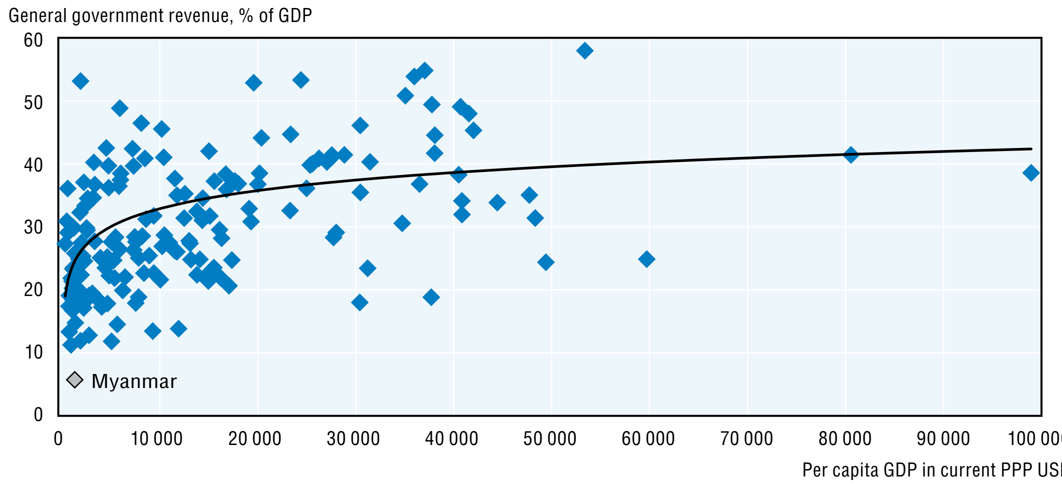
The general government deficit is estimated to have been averaging around 2.5% in the past decades, but it has been on an upward trend recently. The CBM has largely monetised the deficit in the past decade, a practice that is progressively being wound back. The authorities aim to keep the fiscal deficit constant at 5% of GDP, which should normally be sustainable at current levels of public debt and growth. However, Myanmar's public debt level, at around 50% of GDP, is high by international standards for emerging market economies, and therefore a reason for concern. This is not an acute problem as long as the capital account is relatively closed, but sustaining such a high debt level may prove more challenging when the capital account is opened and Myanmar will depend more on (potentially more volatile forms of) capital imports. The country's commitment to settle its arrears with official creditors may further increase the challenge. A potential risk is that tight conditions in international financial markets, once they occur, could spill over to financing conditions in Myanmar and render its public debt unsustainable.

Against this backdrop, it is important that the government enhance its revenue-raising capacity, not least also because there is an urgent need to expand government expenditure in a range of areas, most prominently education, health care, poverty relief and infrastructure (roads, ports and energy). Moreover, the spending structure is heavily tilted towards defence, which is estimated to have been reduced to below 15% of total outlays in 2012/13, but which according to some sources may still be as high as 30% if implicit military spending by other ministries is taken into account.[6] In contrast, spending on education and health is a meagre part of the budget (see Box 2.10 on education spending).

The tax-to-GDP ratio stands at 3.6%, among the very lowest in emerging Asia. While the government also has relatively stable sources of revenues from remittances of profits by state-owned enterprises and royalties from offshore gas fields,[7] total general government revenues are only around 6-7% of GDP according to estimates by the IMF – an estimate which is very low by international comparison even when controlling for per capita GDP (Figure 2.3).[8]

Figure 2.3. **Myanmar's government revenue is low for its income level**

Government revenue and per capita GDP, 2011



Note: The y axis is limited to 60% to improve the readability of the figure. The countries that have general government revenue more than 60% of GDP are Brunei Darussalam, Iraq, Kiribati, Kuwait, Solomon Islands, Democratic Republic of Timor-Leste and Tuvalu.

Source: IMF (2012a), *World Economic Outlook* (database), International Monetary Fund.

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An opportunity to increase government revenues is offered by the abolition of the dual exchange rate system, as this increases the (remittance of) profits of certain state-owned enterprises (SOEs) active in international trade, who can now exchange their foreign earnings against a much higher, market-based, dollar exchange rate.[9] Obviously this also means that the government forfeits a profit on foreign exchange dealings with the SOEs, so on balance it is unclear by how much this would affect the fiscal position. But the incentives that may be produced by the new exchange regime will spur SOEs efficiency and profitability, although for now many SOEs are still loss-making. A proper and transparent accounting for natural resource revenues stemming from all types of resources is also expected to boost government revenues.

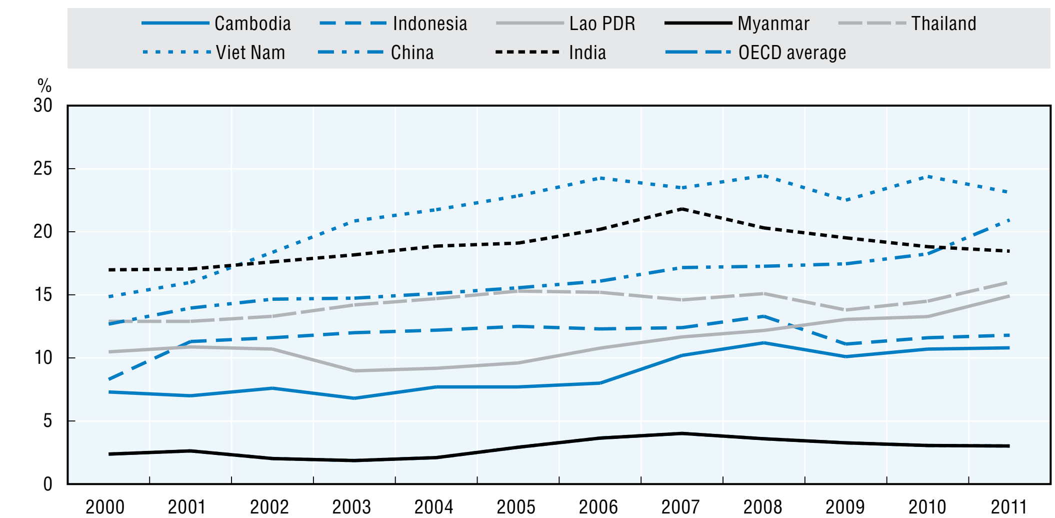
Improving the capacity of Myanmar to raise taxes thus looks essential for funding of sorely needed public expenditures. A strong tax system is also essential to create adequate fiscal space in the pursuit of macroeconomic stability, for instance by allowing tax smoothing and the operation of automatic stabilisers and reducing dependence on natural resource revenues. Myanmar's exceptionally low level of tax revenues compared to other countries in its region (Figure 2.4) is due to a number of salient features of Myanmar's tax system, which it has in common with other South-East Asian economies but are even more prominent in Myanmar.

One of these salient features is that personal income taxes are levied on only a small fraction of the population, those with the highest incomes, since compliance would be too heavy for the poor and too expensive to achieve relative to their potential yield. Similar considerations limit the scope for business taxes. Interviews with the private sector suggest that compliance is extremely weak with even larger companies getting away without paying taxes. Anecdotal evidence shows that collected corporate taxes are even less than collected taxes on car imports. Income/profit taxes and consumption taxes make up the bulk of tax and duties receipts, while the share of excise taxes is negligible (Figure 2.5). The tax collection system in Myanmar is still in its infancy. The use of tax exemptions, preferences and subsidies for poverty reduction or to promote

FDI further limit the tax base (the alternative of levying higher taxes and spending the revenues on infrastructure development may be the better alternative). As a result, tax revenues are always lower than those that would be theoretically collected if legislated tax rates were applied uniformly and fully collected.

Figure 2.4. **The share of tax revenue has been low**

Total tax revenue as percentage of GDP, 2000-11



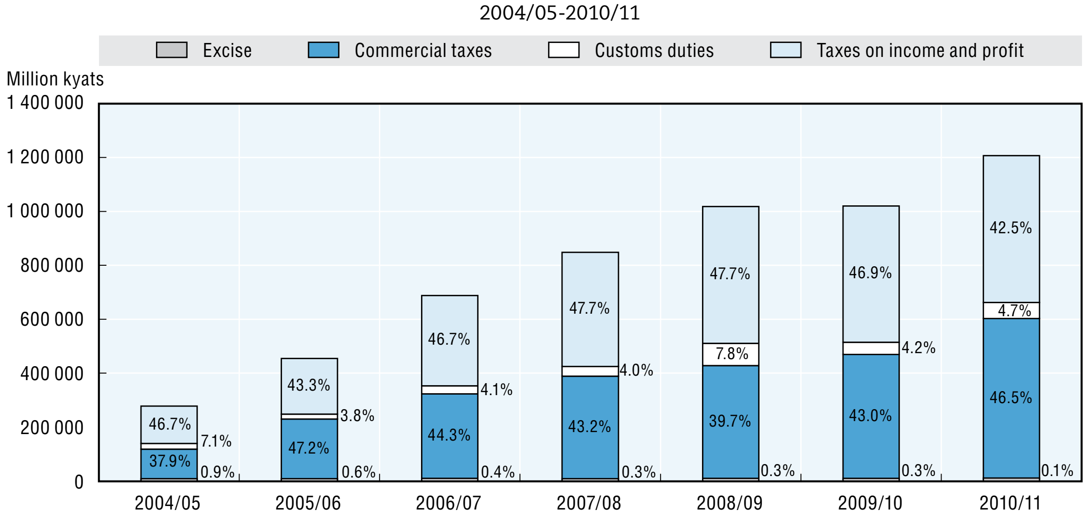
Note: Data refer to revenues of central government, except for China and India, where data refer to general government.

Sources: ADB (2012a), *Key Indicators for Asia and the Pacific 2012*, Asian Development Bank, www.adb.org/publications/key-indicators-asia-and-pacific-2012; CEIC (2013), *CEIC* (database); IMF (2012a), *World Economic Outlook* (database), International Monetary Fund; and OECD (2013a), *OECD Public Sector, Taxation and Market Regulation* (database), http://stats.oecd.org/.

StatLink http://dx.doi.org/10.1787/888932857406

Figure 2.5. **Income, profit and business activities are major sources of government tax revenues**

2004/05-2010/11



Note: The numbers in the bars are percentages of total taxes and duties.

Source: CSO (Central Statistical Organization) (2013), *Myanmar Data: CD-ROM 2011-12*, Central Statistical Organization, Ministry of National Planning and Economic Development, Nay Pyi Taw, Myanmar.

StatLink http://dx.doi.org/10.1787/888932857425

Another salient feature is the absence of a value-added tax. Currently, Myanmar operates a commercial tax with a standard rate of 5% levied on domestically produced goods, imported goods and 14 services. For commercial taxes there is a minimum threshold of 10 million kyats (slightly above USD 11 000 at April 2013 exchange rates), below which there is no need to file taxes. In small towns most businesses fall below this threshold. At present there are no resource taxes, only royalties levied at 12.5% (changed recently from a previous 10%). Although the standard rate of the commercial tax is 5%, rates can be anything between 0% to 200% (on luxury items only) but the average rates on non-luxury items are between 5% to 30%. A property tax exists at the municipal level.

Capital and current budgeting is done at the Ministry of National Planning and Economic Development and the Ministry of Finance, respectively. This division of labour between the planning ministry/agency and the Ministry of Finance is not unique. A number of countries including Bhutan, Brunei Darussalam, China, Mongolia and Turkey follow this pattern. A typical issue that arises in this setting is co-ordination between the two agencies, in particular in the case of projects comprising both capital and current spending elements. In some cases, capital budgets may get approved without the current part of the project or vice versa. In Myanmar, such projects are vetted by a committee comprising the line ministry, the Ministry of Finance and the Ministry of National Planning and Economic Development. It appears that co-ordination among the three concerned ministries is effective.

A reform of the tax administration is underway, with the establishment of new tax offices, training of tax inspectors and collectors, the introduction of a unique tax ID number, and the set-up of a system of self-assessment, all with technical assistance from the IMF and the European Union. A large taxpayer unit is planned to be established by 2015 to monitor about 1000 taxpayers from a few locations in the country. In 2016, a medium taxpayer unit and in 2017 a small taxpayer unit will be established.

The on-going fiscal decentralisation will mean that states and regions can raise their own taxes. The scope of such taxes is determined by the constitution, but the base and the rates are set freely by the state/regional government conditional on the approval by their own parliament. Examples of taxes collected at the sub-central level are excise and property taxes. Much investment, including FDI may go into border areas or areas inhabited by minorities where there are major natural resources (e.g. minerals and hydropower), which raises questions of how to share the benefits. There is neither a tax sharing nor a fiscal transfer system in place.

All in all, the agenda for fiscal reform in Myanmar is vast. The pursuit of this agenda, along with reform of the banking sector and the establishment of a framework for monetary and exchange rate policy, may be expected to yield large benefits in terms of both longer term sustainable growth and near-term stability, two objectives that are tightly intertwined and mutually reinforcing.

Ensuring the rule of law

Another area in which institutional capital is important in Myanmar is the rule of law. In any country, ensuring that both the government and the people are bound by the rule of law is crucial for the country's sustainable development. Accumulation of the institutional and social capital essential to development is severely impaired when the rule of law is weak. Strengthening of the rule of law is even more important in

Myanmar, where during the past decades arbitrary power had often been applied. The importance of addressing this issue is highlighted by the establishment of a Committee on the Rule of Law, Peace and Stability in August 2012 in the Lower House of the parliament chaired by Daw Aung San Suu Kyi. The major mission of the Committee is to review existing legislation from the point of view of substance and necessity as well as conformity with international practices, to inquire into the way tribunals operate and to consider ways to improve legal education. The lack of the rule of law in some parts of the country has impeded the government's efforts to provide major public goods, such as security, justice, and other services and to secure the conditions for economic livelihood. Moreover, the lack of the rule of law has largely contributed to the rapid and very often uncontrolled depletion of the nation's natural wealth and has provided an opportunity for abuse by those in power. This has been made possible due to a lack of supremacy of the law, as well as to a lack of voice, accountability and transparency. In the context of accumulating social capital, improvements in voice, accountability and transparency can also be viewed as elements to develop among people and between people and institutions (see section "Building trust for inclusiveness" in Chapter 3).

Reform efforts to strengthen the rule of law and overhaul key legislation are proceeding

At the core of the conception of the rule of law is the principle of the supremacy of the law, which implies that no one, not even the government, is above the law. To establish the supremacy of the law after decades of resorting to arbitrary power, the separation of powers is needed. The legislative power has been handed over to a parliament with elected deputies that have been active in exercising their power. The separation of the executive and judicial powers has been less effective and the independence of the judiciary is compromised (Box 2.3).

Box 2.3. **The separation of powers in Myanmar**

The effective separation of executive, legislative, and judicial powers is a critical component of good government and an essential part of Myanmar's political development. As a result of its extended period under military rule, Myanmar does not have a history of having strong and independent legislative and judicial branches. Recent trends suggest they are becoming more active under the new constitution, though the executive remains quite powerful and the interdependence of the branches is somewhat unclear, leading to conflict.

History

Following its independence from the United Kingdom in 1948, Burma adopted a Westminster-style bicameral parliament that elected the president, with a constitution providing for an independent judiciary. After the military overthrew the civilian government in 1962 and suspended the constitution, it ruled through the Union Revolutionary Council. There was no meaningful separation of power in the country during this period, as the Council disbanded the legislature and gradually took over control of the judicial system. Indirect military rule formed the basis for the 1974 constitution, through which the legislature was re-established as the one-party unicameral Pyithu Hluttaw, controlled by the Burma Socialist Programme Party, which also controlled the judiciary. After seizing direct control of the state again in the 1988 coup, the military suspended the constitution and ruled through the State Law and Order Restoration Council and the State Peace and Development Council from 1997 onward.

Box 2.3. **The separation of powers in Myanmar** *(cont.)*

Under domestic and international pressure, from 2008 the government followed through with reforms designed to transition the country to "disciplined democracy," which included renewed checks and balances on the power of the executive branch through the legislature and judiciary.

Current situation

The current constitution, drafted by the largely pro-military National Convention and approved by almost 94% of voters in a widely-criticised referendum in 2008, states that the three branches of government are "separated, to the extent possible, and exert reciprocal control, check and balance among themselves." Since the end of January 2011, when the new constitution came into force, it has in practice given the president significant powers over parliament and judges.

The executive powers reside solely with the president, who is elected by parliament for a five-year term that may be renewed once. The president selects the Cabinet, except for the ministers of Border Affairs, Defence, and Home Affairs, which are selected by the military. The president has far-reaching powers of appointment and oversight, rarely constrained by intermediary independent agencies, and a strong role in budget decisions. The president and military can claim expansive powers by declaring a state of emergency.

Both the Pyithu Hluttaw and Amyotha Hluttaw, the two houses of the parliament, are made up of three-quarters elected representatives and one-quarter military appointees. The legislature has been criticised as being a rubber stamp for government bills; parliamentarians lack the staff, committees, and central structures needed to support the drafting of legislation, and so have mostly voted on bills proposed by the government. The judicial system consists of the regular court system, headed by the Supreme Court, and the Constitutional Tribunal, which is responsible for hearing disputes regarding the interpretation of the constitution.

Judicial independence

The justice system is more independent of government influence than it was under military rule and has responsibilities to check the power of the executive and legislature, exercised through Supreme Court orders regarding fundamental rights and the Constitution Tribunal's powers to review legislation. Nevertheless, the work of judges is subject to political interference by the president and parliamentarians. Lower court judges are appointed and could possibly be dismissed by the president, rather than an independent organisation, and judges on the Supreme Court and the Constitutional Tribunal can be impeached by the parliament. Although the Constitutional Tribunal had twice given rulings that limited executive powers, in 2012 it sided with the president and against the legislature in deciding that a number of legislative committees were not entitled to special budgets and legislative powers. In response, the parliament voted to impeach the tribunal, and the nine judges chose to resign.

In addition to the formal constraints on judicial independence, the proper functioning of the system is threatened by the limited legal capacity of judges (International Bar Association, 2012). Some reviewers have expressed concern that the history of government involvement in the courts may have left Myanmar with judges unused to working under legal norms and practices rooted on the rule of law. On the Constitutional Tribunal, these problems are exacerbated by the relatively short five-year terms served by these judges, which could prevent the development of expertise on constitutional matters.

Box 2.4. **The on-going legislative overhaul**

Several dozen new laws and amendments have been passed by the Pyidaungsu Hluttaw since the legislature was convened in January 2011. Below are some examples of the new laws:

- Labour Organization Law (2011)

  Grants workers the right to join and resign from labour organisations, and outlines the rights and responsibilities of these groups during normal operations and during lock-outs and strikes.[a]

- Settlement of Labour Disputes Law (2012)

  Outlines the roles of arbitration bodies and the responsibilities of workers and employers in labour disputes.[b]

- Environmental Conservation Law (2012)

  Calls for the establishment of an environmental conservation committee, which will advise the government on environmental matters. The committee is also made responsible for making rules for industry and for setting various environmental quality standards.[c]

- Administration of Vacant, Fallow and Virgin Lands Law (2012)

  Calls for the establishment of a central committee that will manage the commercial use of unused lands, and sets limits on the amount of land the committee can grant applicants the use of. It also outlines the responsibilities of the recipients of these lands and the conditions under which the government can reclaim it.[d]

- Foreign Investment Law (2012)

  Provides a list of the business activities in which foreigners will be allowed to engage, specifying: *i)* restricted activities for foreigners; *ii)* activities only allowed in the form of a joint venture with Myanmar nationals, with indication of the maximum foreign shareholding permitted; *iii)* activities allowed under certain prescribed circumstances and conditions; and *iv)* activities allowed only following an Environmental Impact Assessment and minimum investment levels, and requires increased use of local staff for skilled positions.[e]

- Import-Export Law (2012)

  Tasks the Ministry of Commerce with defining regulations on trade, issuing permits, and banning trade in particular items.

- Ward or Village Tract Administration Act (2012)

  Includes a specific definition of forced labour and provisions relating to its prohibition and to the punishment of perpetrators of forced labour under the Penal Code. This act replaces the repealed Village Act and Towns Act of 1907.

Notes:

a. English text: The Labour Organisation Law, 11 October 2011, Online Burma/Myanmar Library (2011), www.burmalibrary.org/docs12/Labour_Organization_Law%20No.7-2011-ocr-red(en).pdf (accessed March 2013).

b. English text: The Settlement of Labour Dispute Law, 28 March 2012, Online Burma/Myanmar Library (2012), www.burmalibrary.org/docs13/Labour_Disputes_Settlement_Act-2012-en.pdf (accessed March 2013).

c. English text: The Environmental Conservation Law, 30 March 2012, Asian Environmental Compliance and Enforcement Network (202), www.aecen.org/sites/default/files/environmental_conservation_law-english_.pdf (accessed March 2013).

d. The Administration of Vacant, Fallow and Virgin Lands Law allows for vacant, fallow, and virgin lands to be leased for up to 30 years (renewable) and the Foreign Investment Law broadly allows foreigners to lease land from the government or private owners for up to 50 years (extendable for two additional ten-year periods). The Administration of Vacant, Fallow and Virgin Lands Law requires that foreigners leasing these lands must have been permitted to do so in accordance with the Foreign Investment Law, but otherwise does not address this discrepancy. English text: The Administration of Vacant, Fallow and Virgin Lands Law, 30 March 2012, Online Burma/Myanmar Library (2012), www.burmalibrary.org/docs13/VFVLM_Law-en.pdf (accessed March 2013).

e. Summary: Global Legal Monitor (2012), "Burma: Amended foreign investment law published," www.loc.gov/lawweb/servlet/lloc_news?disp3_l205403415_text (accessed March 2013).

The observation of the principle of the supremacy of law presupposes a consistent and comprehensive system of laws. The foundations of a modern legal infrastructure are being laid and this process is advancing at a breath-taking speed (Box 2.4). The most fundamental legal document is the Constitution, the latest approved in 2008. The Constitution grants the President broad powers including budgetary decisions and the nomination of senior legal officials and members of the Electoral Commission. The reformist government has been adopting new laws at an overwhelming speed. Dozens of domestic and foreign lawyers and policy makers have been providing advice and inputs into the new legislation. The speed at which new laws are passed often makes it difficult to ensure consistency among the different laws, which may result in conflicts. For example, the terms of land rights defined in the Farm Land Law and the Foreign Investment Law are not consistent.

Steps have been taken in providing support for voice, transparency and accountability

The reformist government that came into power in 2011 has made significant progress in establishing the major principles reinforcing the rule of law such as voice, accountability and transparency. Citizens have been enjoying more freedom to express their views either directly or through participation in elections, or the civil society. In the area of participation, a major change is the introduction of elections at the village level in December 2012 following the passing of the *Ward or Village Tract Administration Law*. With this change, village administrators are now elected throughout about 30% of the country. By-elections in 2012 also allowed citizens to express their choice for their deputies and their choice was respected. Other major achievements in the area of participation of citizens are a still nascent but rapidly expanding civil society and emerging fora for citizens' voice. For example, recently, the government has been encouraging people to report bribery cases and offering protection for those who speak up. There is still ample room for improvement, however, in the areas of rights such as the right to own property and be compensated at a reasonable level for land acquired by the government, the right to establish and register associations or lobby groups and the right for farmers to grow crops of their choice. The government is also making progress in addressing the issue of forced labour, putting in the necessary legislative base through the *Ward or Village Tract Administration Law* (2012). By accumulating institutional capital supporting associations, property rights and other institutions and empowering the people to speak up against unlawfulness or abuse, the government can also build trust and strengthen its legitimacy.

Measures have also been adopted to increase transparency by capturing the momentum from the transition from a military to a civilian administration. Live debates at the parliament are the most obvious manifestations of increased transparency. The press and the media are increasingly active in presenting views of different interest groups and in uncovering issues that used to be taboo for public discussion in the former regime. These include reports of graft and money laundering as well as of human trafficking and forced labour. In an important step, Myanmar ratified the UN Convention against Corruption. A further needed step to increase transparency is to increase involvement of the general public in the discussions related to new laws or regulations as well as in the uncovering of unlawful business activities. A more active audit office, an independent competition authority and independent scrutiny of budgetary issues are necessary ingredients of transparent governance systems.

Continuous commitment towards increased transparency is a precondition to accountability. Myanmar has begun the process of joining the Extractive Industries

Transparency Initiative. Genuine election processes at both the Union and sub-national levels strengthen government accountability as the representatives may not be re-elected if they do not represent the interests of their electorate. Answerability, alongside enforceability, is a crucial pillar of government accountability. The government has become responsive to people's voice and has introduced measures to enhance its accountability to the electorate. An important milestone is the fight against corruption. A nine-member anti-corruption committee was formed with the leadership of the Vice President, showing the importance of the issue as well as the determination of the government to address it. The press and the media, together with the civil society, have been used as tools to hold the government accountable.

Enforceability has also seen improvements in the recent years. People can increasingly get their voice heard and the government is responsive to cases such as those involving the abuses of labour standards and land rights. Even more importantly, it can effectively be held accountable for its wrongdoings through stronger enforceability. The resignation of top government officials on corruption charges is a sign of enhanced enforceability and a commitment to clean government. Thus, the social contract between the government and the populace connoting the rights and responsibilities of each appears to be beginning to function. An additional aspect is accountability between the privileged and the poor, which needs strengthening to increase the perception of social justice and thus enhance the legitimacy of the government. This would include, for instance, the revisiting of uncompensated or insufficiently compensated land appropriations, not only by the government but also by business conglomerates and tycoons.

Voice and accountability can potentially be strengthened by the devolution of powers to sub-central government units. The preconditions for federalism to enhance voice and accountability are effective local institutions and well-trained local officials, as without those it is difficult to execute local-level plans and to implement policies. In addition, the extent of devolution of powers, including revenue-raising powers, is an important determinant of the impact of decentralisation on participation, voice and accountability.

Effective federal relations will be key to reconciling ethnic tensions

Myanmar is a federation of seven states and seven regions (with some further special administrative rights of varying degrees for some lower level administrative units). The continued insurgencies over the history of independence and historical promises to ethnic groups suggest that equitable treatment of all ethnic groups is the only viable option for a unified and multi-ethnic country. Ethnic groups' dissatisfaction with the administrative structure of the country and with the effective division of power between the centre and the ethnic states has been often expressed as armed rebellion since the country's formation in 1948. The 1947 Constitution provided ethnic states with some autonomy, but the system was not a federal one in the classic sense as the government of Burma, the major part of the country, was simultaneously also the government of the Union of Burma, encompassing all ethnic territories. The first Constitution also included a secession clause (Article 10) that allowed the states to access a secession process beginning ten years after Myanmar achieved independence.

Subsequent legal changes made no further progress with regards to the distribution of powers between the central government and sub-central entities. Not only was the secession clause abolished, but demands put forward by ceasefire groups in the mid-2000s concerning federal style division of powers were ignored. Some ethnic organisations that signed ceasefires with the regime (notably the Kachin Independence Organisation and the New Mon State Party) had been invited to join the National Convention, whose task was to prepare a new Constitution. Having seen their demands dismissed, ethnic organisations did not see the military government as a supporter of their efforts to strengthen their self-determination. The National League for Democracy, the major opposition party (not invited to join the National Convention) was not more supportive of ethnic autonomy, either. Its stance has been to resolve ethnic matters by mutual agreement, on the basis of the ability of each group to participate. The views of exile groups both from the opposition fighting for democracy and ethnic groups demanding genuine federalism, appeared more shared. In such circles, democracy and federalism were seen as mutually reinforcing processes to pursue.

While it is a broad consensus that there is only a narrow range of constitutional arrangements that would satisfy ethnic demands, the ideal form of federalism is hard to define. History has proved that any kind of notional federalism that lacks effective devolution of powers will not work. Although the first Constitution offered some degree of autonomy, it provided for no more than a quasi-federal system, with few effective rights for minorities for self-determination. That is how the Supreme Council of the United Hills Peoples (SCOUHP), aimed at establishing a genuine federal system, emerged shortly after independence. Minorities demanded the right to establish their own legislative, judiciary and administrative powers within their national states and the right of self-determination and secession. At present, Myanmar states and regions can establish their own parliaments and Constitutions. Legislatures at the state level that were brought into life by the 2008 Constitution are new elements appearing for the first time in the Myanmar federal system. Expectations for federalism to contain ethnic conflicts are high, but it may take time to find the appropriate type of federalism for Myanmar.

The complexity of ethnic issues related to the multiplicity of ethnic groups combined with the autonomy aspirations of several of those groups suggests that existing federal practices in other countries (Box 2.5) may not provide a model to follow for Myanmar. Some kind of a federal structure seems inevitable but the feasibility of either a purely multi-national or a strictly territorial federal structure appears low. Basing self-determination on nationality is complicated owing to the multiplicity of nationalities in the country (in Myanmar ethnic groups are referred to as nationalities), while organising autonomous regions strictly based on geographical principles and promising equal rights to all citizens would not sound credible to nationalities that have felt oppression over the past decades. Also, a territorial system works well where there are no national identity issues, which is not the case in Myanmar. Furthermore, at the current stage of devolution of powers to states and regions, hybrid federalism, which is an essentially unitary system, does not appear an attractive choice, either. A possible direction is multi-national federalism starting with the nationalities that have the aspiration and the capacity to determine their own affairs and leaving room for late-comers to join the league of autonomous states and regions. A two-pronged approach based on the present practice of granting autonomy at multiple-levels of administration (at the state/region, at the division and at the district level) would allow tailoring powers and responsibilities to the size and capacity of the particular ethnic group demanding autonomy.

A "genuine" federalist system for Myanmar would involve the effective devolution of powers to the states and regions, both for self-determination and revenue collection. Self-determination involves setting legal rules and administering economic and social affairs according to the needs of the population in the state or the region. This would allow for building of ethnic groups' identities, preserving and developing their national languages and cultures and organising the employment of available resources in a sustainable way. To finance such needs, an effective devolution of revenue raising powers will be needed, involving tax sharing arrangements negotiated in a transparent and fair way between the centre and sub-central regions and states; as well as the freedom to establish the regions' own revenue sources and to collect taxes and fees in a way that is considered most appropriate and efficient given the state's or region's particular conditions.

Box 2.5. **Multi-national, territorial or hybrid federalism?**

Federalist systems across the globe are organised on the basis of nationality (multi-national federalism) or geographical region (regional or territorial federalism). In the former case, territorial autonomy is typically granted for a nationality with the right to self-determination and to preserving of national identity. Examples of multi-national federalism include Spain and Canada. Regional federalism grants equal rights to all citizens and autonomy is based on regions, which are formed irrespective of the boundaries of ethnic groups. Examples are Australia and the United States.

In Asia, hybrid federalism is often seen as most appropriate to deal with minority issues and national identity questions (He, Galligan and Inoguchi, 2007). This may be because of failed attempts to impose a federated union upon former British colonies in the era of nation building as well as unsuccessful attempts to build homogenised nation states in the following decades. Following decolonisation, most Asian countries first sought to build unitary and homogenising nation states. Countries facing national identity questions, resistance amongst ethnic or religious minorities or even civil wars, in contrast, had more been in favour of federalism. Early attempts at federalism failed in some countries like Myanmar or Sri Lanka, while federalism has been functioning well in India and has been emerging in Indonesia and the Philippines. In particular, the latter two countries have implemented a more hybrid type of federalism, where federal elements are introduced to some parts of the country but the centre and the main body of polity remains a unitary system (He, Galligan and Inoguchi, 2007). In Indonesia, the 2005 peace agreement resulted in religious self-governance of the Acehnese as well as an attractive revenue-sharing agreement of oil and gas revenues with the central government. In the Philippines, the 1987 Constitution granted autonomy to regions in Mindanao over a number of affairs including revenue raising powers, economic and social affairs and education policies.

Hybrid federalism emerges where a unitary system is not sustainable owing to autonomy aspirations of one or a few nationalities or ethnic groups. It allows the preservation of the unity of the nation-state while solving ethnic conflicts. It has been credited as capable of effectively dealing with secessionism and ethnic division. Stability and peace, however, are often achieved at the expense of inter-ethnic equality. In the case of multiple ethnic groups, the granting of autonomy to one may encourage others to follow suit and demand similar privileges.

The distribution of powers between the federal government and the regions, which is the essence of federalism, is safeguarded by the Constitution. Bicameral legislatures are typical features of federalist countries, where the second house can represent regional interests in federal politics. In Myanmar, there are two houses of parliament with equal power. An independent constitutional court is an indispensable ingredient of a functioning federal system, as it is the authority that deals with any conflict between the federal government and any state/regional government. In Myanmar, the separation of powers between the legislative, the executive and the judiciary does not have a long history. Thus the independence as well as the capacity of the constitutional court will need to be strengthened to ensure a functioning and credible federal system.

More important than the formal institutional setting is how federalism functions in practice. Practice matters because constitutional provisions may be ignored, or the state/region may not have the capacity to fully exploit the rights for self-determination that is guaranteed by the constitution or, conversely, federal practices may go beyond constitutional provisions. Since its existence as a unified country, Myanmar has not had a genuine federal system. Although the first Constitution granted some degree of autonomy to the initial states/regions, the autarchic rule from 1962 prevented the shaping of federal relations. Also, the next Constitution of 1974 only granted notional autonomy to the newly added states. The 2008 Constitution has in principle enabled regions to determine a large amount of their internal affairs, but so far there has been little progress in this area. Many of the regions may face capacity constraints in designing their internal governance structures. Moreover, to satisfy demands of ethnic groups, more autonomy in self-determination is desirable. This could be done through parliamentary debates and the changing of the relevant clauses of the Constitution, which would likely be a lengthy process. Another alternative would be to focus on putting in place federal institutions and experimenting with available structures before finding the most appropriate one and subsequently incorporating that structure into the Constitution. Given the lack of experience with a functioning federal system, it would be easier to try some potential alternatives before institutionalising any one type of federal relations.

Federalism can only work if the delicate balance between the demand for regional autonomy and the choice to maintain unity is well struck. In contrast, if unity is achieved at the expense of regional autonomy, by the suppression of local autonomy, then secessionist movements may emerge over time and put an end to the unity of the country. By the same token, if the demand for regional autonomy is so high that it does not leave room for national unity, federalism cannot work, either.

Building the institutions for environmentally sustainable development

Setting up the institutional framework for effective conservation and sustainable exploitation of Myanmar's natural resources will be key to the country's development goal of becoming a middle-income country over the next two decades. Myanmar's exceptionally diverse and rich forest, land, water, and mineral resources have been the main support to the domestic economy and will continue to be of major importance as the economy diversifies. However, Myanmar's natural resource endowment presents challenges and risks as well as opportunities. Avoiding costly mistakes in resource exploitation and ensuring that resources are used efficiently and sustainably will depend critically upon skilful development of the organisational, legal, and regulatory institutions for sustainable development, which are now in a very early stage of development.

Environmental resources have been degraded by population pressure and commercial demands. Myanmar's early stage of economic development has helped to limit the damage to its environment and natural resources in certain areas. Industrial pollution is less severe than in most other developing countries in Asia, but mainly because of the comparatively limited development of industry and low income levels.

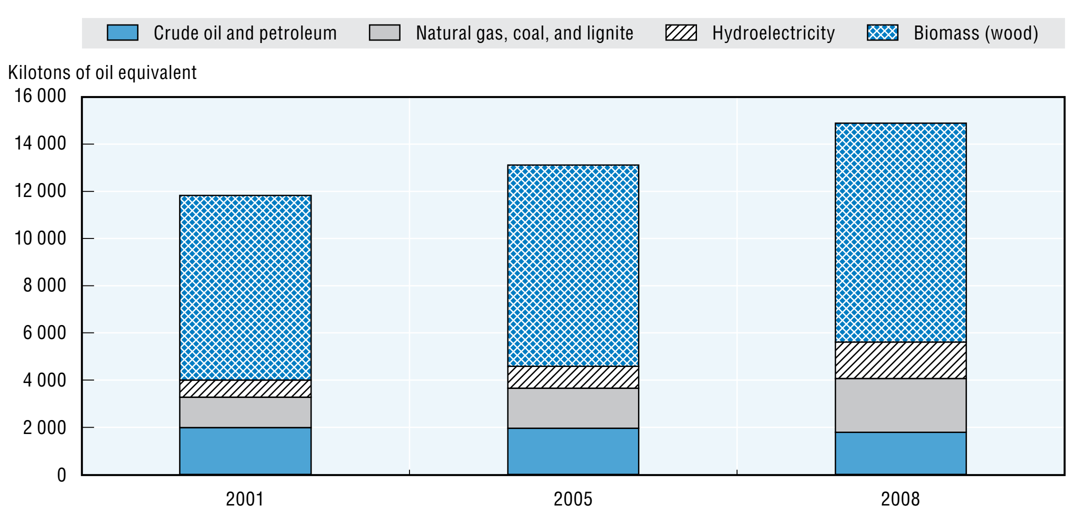
However there has been substantial degradation of forest, land, and other key resources on which the country's development will continue to depend.[10]

Myanmar's forests have shrunk noticeably since the economic reforms beginning in 1988. The total forest area fell from 39.2 million hectares in 1990, or about 58% of the country's total land area, to 31.8 million hectares, or 47% of total land, in 2010. This amounts to a decline of nearly 1 percentage point annually over the twenty year period. Deforestation was most rapid from 1990 to 2000 (about 1.17% annually) but has dropped only modestly since 2000 and accelerated slightly during 2005-10. Deforestation has been greatest in regions with relatively high population density and high economic growth and where the forests have comparatively high commercial potential. The portion of land covered by forests fell by nearly 40% to 50% in the Yangon, Mandalay, and Ayeyarwady divisions between 1989 and 1998, a decline of 5% or more per annum (ADB, 2008). The rate of deforestation in less densely populated (mainly) northern regions, notably Bago, Kachin and Rakhine states, and the Sagaing division, has been slower overall but damage to commercially viable species has often been severe.

Severe poverty and the growing population together with over-exploitation for commercial purposes have been the main factors behind the shrinkage of Myanmar's forests (Sovacool, 2012). The relentless need to meet the subsistence needs of the growing rural population has led to progressive encroachment on forests from agricultural activities and growing demands for forest products by rural households, including firewood, which is the main source of heating and cooking fuel for both rural and urban households (Figure 2.6). These pressures have been reinforced by the comparatively simple and often inefficient techniques used for cultivation, which have often led to deterioration of the productivity of the land. Similar forces have also led to degradation of water and other environmental resources in Myanmar's coastal and river regions. Mangrove forests have been degraded by the growth of the shrimp industry and rice cultivation. The need to provide livelihoods for the growing population has led to over-fishing and threats to the viability of key marine species.

Figure 2.6. **Biomass accounts for most energy consumption in Myanmar**

Primary energy consumption



Source: Ministry of Energy, Myanmar.

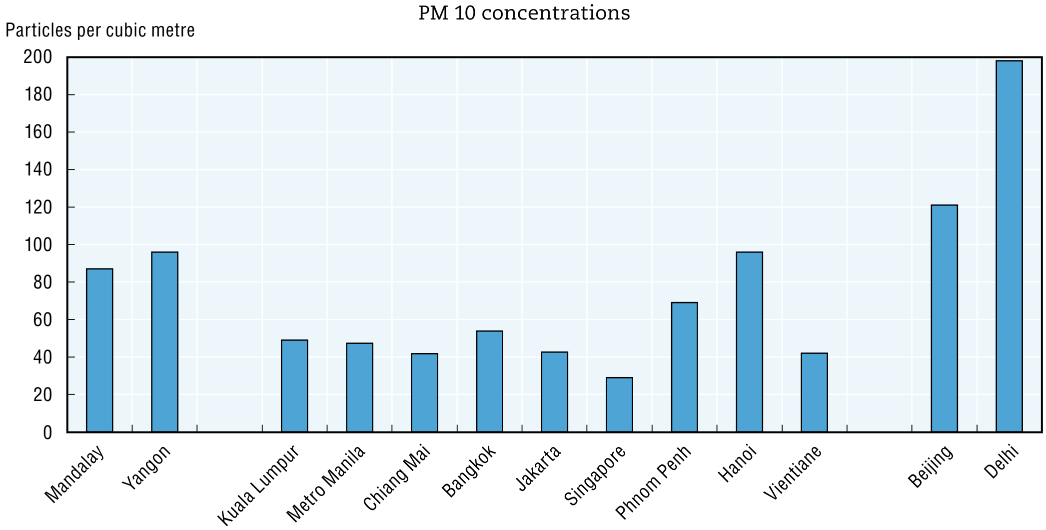
StatLink *http://dx.doi.org/10.1787/888932857444*

Pressures from the growing population have also contributed to significant degradation in land resources, especially in some regions. Nearly 10% of cultivated land is estimated to be at elevated risk from soil erosion (ADB, 2008). Most of this land is in the hilly and mountainous regions (mainly) in the North, where 42% of the population lives. Vulnerability to erosion has been aggravated by over-use of the land beyond its sustainable capacity driven in large part by population pressure. Population pressures along with natural factors have also degraded soils in other parts of the country. Land classified as "problem soils" amounts to about 5% of total cultivated land according to official estimates (ADB, 2008). Soil quality is undermined by salinity in delta and coastal regions, alkalinity and acidity in dry and laterite soil areas, respectively, and seasonal flooding in low-lying areas.

Illegal exploitation and trade have further contributed to environmental degradation. The strong commercial incentives to exploit forest resources, both from within and outside the country, have led to extensive legal and illegal over-cutting and over-logging. Mining operations, whose scale has increased greatly over the past two decades, have caused extensive damage to land and water resources, especially in northern mountainous regions, from the use of hazardous materials, cutting of forests, and use of techniques such as open pit mining (Burma Environmental Working Group, 2012). Mining and the extraction and transport of oil and natural gas have also led to displacement of local villages to make room for their operations. Commercial exploitation of mineral resources at the expense of environmental conservation has sometimes been encouraged by government policies emphasising resource development.

Figure 2.7. **Air pollution is severe in large cities**

PM 10 concentrations



Source: Pandey, K. D. et al. (2006), "Ambient particulate matter concentrations in residential and pollution hotspot areas of world cities: New estimates based on the Global Model of Ambient Particulates (GMAPS)", *The World Bank Development Economics Research Group and the Environment Department Working Paper*; and WHO (2013), *Database on outdoor air pollution*, World Health Organization, http://www.who.int/gho/phe/outdoor_air_pollution/exposure/en/index.html (accessed 19 March 2013).

StatLink http://dx.doi.org/10.1787/888932857463

Myanmar's cities have been facing challenges of solid waste management (SWM) and dealing with air pollution. There have been significant improvements in SWM in the two major cities, notably in the portion of waste collected, but SWM in other cities has improved very little and remains poor overall (ADB, 2008). Air pollution in Myanmar's two major cities is among the highest for major cities in developing Southeast Asia (Figure 2.7). The comparatively high level of air pollution reflects both the increase in the number of motor vehicles as well as the predominant use of low octane fuels suitable for the motorcycles and other lower power vehicles.

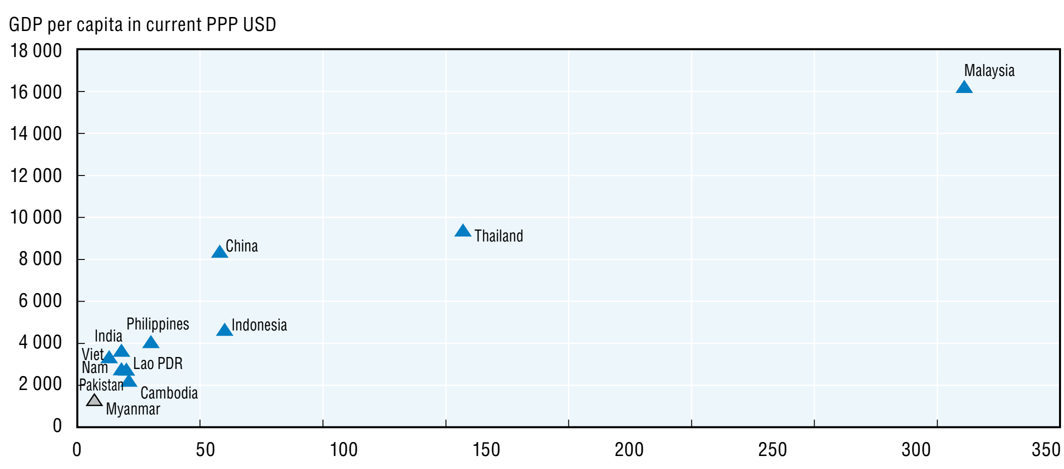
Pressures on natural resources will increase and new challenges are likely to emerge

Overall, the deterioration in Myanmar's environment is a reflection of the intense and rising competitive pressures engendered by the needs of the growing population, demands from domestic and foreign business, and internal development policies of the government – pressures that have overwhelmed the government's limited capacities to manage. These pressures will almost certainly increase and new challenges will emerge as its development accelerates.

The growth of industrial activities, which now accounts for slightly less than 20% of GDP (2010/11), along with the further development of agriculture, will both increase the amount of waste and pollution that needs to be managed and broaden their sources. Water and land pollution from industrial sources has been relatively limited in Myanmar but experience in other developing countries indicates that it can easily become a major problem. Use of chemical fertilisers and pesticides, which has until now been fairly limited, is likely to increase greatly as the agricultural sector develops, posing potentially severe risks of pollution to water resources and bio-diversity.

The experiences of other developing countries, notably China, highlight the risks that rapid development will lead to severe urban air pollution from the use of coal for power generation, industrial activities, and motor vehicles. Myanmar's hydropower and natural gas reserves will help to reduce the first of these risks. However, motor vehicle use in Myanmar accelerated sharply in the first decade of this century and the pattern of other developing countries indicates that it is likely to accelerate further as per-capita incomes rise (Figure 2.8).

Figure 2.8. **Motor vehicle density is likely to increase with income rising**



Source: IMF (2012a), *World Economic Outlook* (database), International Monetary Fund and World Bank(2013a), *World Development Indicators* (database), http://databank.worldbank.org.

StatLink http://dx.doi.org/10.1787/888932857482

The opening of the country to FDI and to the domestic private sector will pose major challenges of balancing the need to develop the resource and industrial sectors with the requirements of sustainable development. The challenges are likely to become acute nearly immediately: FDI into the energy and other key resource sectors is expected to surge over the medium term and will be essential to their development. However, the institutional capacity to ensure that natural resource exploitation is sustainable and consistent with environmental goals is currently very under-developed.

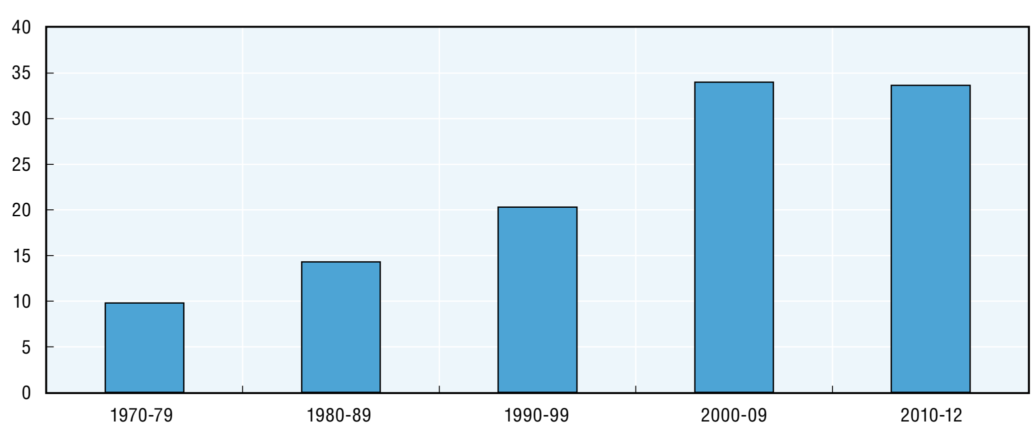
Development of dams and other water control infrastructure also poses significant challenges of balancing economic development with sustainability objectives – as the fierce controversy over the construction of the Ayeyarwady Dam has highlighted. Dams and related infrastructure are essential to meeting increasing water needs, the development of Myanmar's hydropower potential, and to dealing with the risks from natural disasters and climate change. However, as other major projects in Southeast Asia and elsewhere have illustrated, large-scale dam projects pose potentially serious environmental risks that can be difficult to assess and that require sophisticated planning and evaluation capabilities from government authorities if they are to be effectively managed.

Climate change poses further challenges

Long coastlines and heavy concentration of population near the coasts along with high dependence on agricultural and natural resources have made Southeast Asian countries especially vulnerable to the effects of climate change (IFAD, 2009; Zhuang, Suphachalasi and Samson, 2010). The effects of climate change are already becoming manifest, notably in a significant increase in the number of major storms and floods to hit the region over 2000-08 compared to the numbers experienced in each of the prior four decades (Figure 2.9).[11] Climate simulations suggest that the region as a whole could experience as much as a 4.8°C average temperature increase by 2100 as compared with 1990 and be subject to a 70 cm rise in sea level. Overall precipitation is expected to increase by 2100 but its pattern is likely to shift, with Thailand, Viet Nam and Indonesia likely to experience drier conditions over the next two to three decades (Zhuang, Suphachalasi and Samson, 2010). Melting of snow and ice in mountainous regions could reduce water flow in major Southeast Asian river systems, increasing stress on water supplies.

Figure 2.9. **Extreme storms and floods are increasing in the region**

Yearly average number of extreme storms and floods in Southeast Asia



Note: Totals for Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, and Viet Nam.

Source: Centre for Research on the Epidemiology of Disasters (2013), *International Disaster Database*, www.emdat.be/disaster-list (accessed 13 March 2013).

StatLink http://dx.doi.org/10.1787/888932857501

These changes will have widespread and substantial effects on the region's economies and ecosystems (Zhuang, Suphachalasi and Samson, 2010).

- Access to safe and secure water supplies is likely to become more difficult. By one estimate, 3.9 million people in Thailand and 8.4 million in Viet Nam are expected to experience water stress by 2050.
- Rice yields are likely to fall substantially, by as much as 50% in Thailand and Viet Nam and even more in the Philippines, in the absence of technological innovations and adaptation.
- Adaptation to higher temperatures is likely to significantly alter the composition of the region's forests toward species with lower carbon absorbing capacity than at present.

Myanmar's coastal and delta regions are likely to be particularly affected by the increase in tidal variations in sea level and in the frequency and intensity of tropical cyclones accompanying global warming. These changes, together with the increase in rainfall, increase the risk of flooding as well as coastal erosion and heightened water salinity in upstream rivers and streams. Within the Southeast Asian region, the delta regions of Myanmar, Thailand, and Viet Nam are particularly at risk as are low-lying areas of Indonesia, the Philippines, and Malaysia (IFAD, 2009). Increases in sea levels could also degrade access to water in regions adjacent to coasts through salt-water intrusion into freshwater supplies.

Capabilities for adaptation and resilience to disruptions will need to be incorporated into sustainable development strategies and plans if the adverse effects of climate change are to be adequately managed and mitigated. Failure to develop these capabilities is likely to reduce real growth and set back progress toward reducing poverty.

International experiences show that environmental and broader development policies need to be integrated

Up until about the 1970s, issues of environmental conservation and resource management in most countries were either neglected or treated in a piece-meal fashion and, particularly in developing countries, were subordinated to the imperatives of achieving rapid growth and industrial development ("grow first, clean-up later"). The costly environmental problems arising from this approach, and the growing realisation of the implications of global warming, have led to progressively increasing emphasis on the integration of environmental objectives and policies in the formulation and implementation of broader economic policies and development plans.

The ultimate goal of this process is to 'mainstream' environmental objectives in order to achieve the "*…informed inclusion of relevant environmental concerns into the decisions of institutions that drive national, local and sectoral development policy, rules, plans, investment and actions*" (OECD, 2012a). The need for mainstreaming reflects the fact that environmental objectives are particularly interdependent with other key social and development objectives. For example, policies for sustainable development of forests in Myanmar and other Southeast Asian countries have a direct impact on the outcomes of policies to reduce rural poverty and the development of mineral and other natural resources. Policy formulation and implementation needs to be integrated to balance the objectives in these areas and to avoid unnecessary conflicts among them.

Achievement of mainstreaming is an on-going process that is far from complete in even the most advanced economies. The ways in which environmental objectives are 'mainstreamed' into overall development policies and decisions in any particular country need to be shaped by its institutional and governance capacities and to adapt as these capacities change. Efforts to achieve effective integration of environmental and broader development policies have had to struggle with several key challenges.

- Creating an effective legal framework and government organisations for mainstreaming. Effective co-ordination of policy decisions and their implementation across government agencies and other organs at both the national and local level is key.
- Designing effective instruments to achieve environmental objectives most efficiently.
- Involving non-government actors – the business sector, households, and civil society – in the formulation and implementation of environmental policies in order to improve their design and to strengthen incentives for environmentally beneficial behaviour.

Effective co-ordination across government organs is essential to environmental policy

Nearly all developing countries, including those in Southeast Asia, have progressively upgraded the importance given to environmental issues and have sought to improve the organisational structures for achieving environmental objectives and for co-ordinating them with broader economic goals and policies. In a number of Asian countries, the government's obligation to protect the environment is stated in the constitution. Most Southeast Asian countries have drafted Agenda 21 strategies for sustainable development. These mandates have at the least helped to upgrade the visibility of environmental issues in government policy and to provide an overarching "vision" for environmental conservation strategies and the mandate for their integration into development policy-making.

First line responsibility for environmental policies is now usually vested in a separate ministerial level agency primarily focused on environmental issues, such as the Ministry for Natural Resources and the Environment in Thailand and Viet Nam, the Ministry of the Environment in Cambodia, and the State Environmental Protection Agency in China. This represents a significant upgrading of the priority given to environmental issues compared to several decades ago when those issues were often assigned to sub-offices of ministries with much broader mandates. Environmental objectives and policies to achieve them are incorporated, to varying degrees, in national development plans.

Despite these improvements, there is widespread agreement that the effectiveness of the organisational structures in integrating environmental with other development policies has been less than needed, for several reasons (Dalal-Clayton and Bass, 2009; Habito and Antonio, 2007; OECD, 2012a; UNESCAP, 2003). Ministries responsible for key sectors, such as energy or transport, along with major "policy" government organs, such as the planning ministry (or board) and the finance ministry traditionally have had the major influence over national policy-making and in the formulation of national development plans. Environmental considerations are generally of lower priority to these major agencies than economic development and the key sector priorities specified by national development plans (e.g. to improve and extend the national power grid).

This tendency is reinforced by the fact that many of the basic laws and instruments are largely sector-specific in nature. Moreover, the technical abilities of these ministries to take account of environmental considerations are often limited (UNESCAP, 2003). The environment ministries, although they have the technical expertise to formulate specific environmental policies, generally have insufficient expertise about other areas to perform an effective co-ordinating function.

A number of mechanisms are used to try to deal with the co-ordination problem. Several Southeast Asian countries have inter-agency committees to oversee preparation of the national development plan along with, in some cases, a separate inter-agency committee on environmental issues or sustainable development (UNESCAP, 2003). For example, the Committee for Planning and Development in Lao PDR, and the Technical Working Group on Planning and Poverty Reduction in Cambodia are responsible for co-ordination of national planning in their respective countries. The National Environment Board (NEB) in Thailand recommends policies and plans for environmental enhancement and prescribes environmental standards. However the co-ordination between the two organs tends to be limited. The national planning agency often is not represented on the inter-agency environment committee or board and planning agencies and inter-agency committees often rely on environment sub-units within the sector ministries for inputs on environmental issues.

Links between the inter-agency planning and environment co-ordinating organs are stronger in the Philippines, where the Secretary of the Department of Natural Resources and the Environment is a member of the Board of the National Economic and Development Authority, which chairs the Philippine Council on Sustainable Development. In general, such inter-agency organs are most effective when led by one of the highest level officials, as in Thailand where the Prime Minister chairs the NEB. The National Councils on Sustainable Development (NCSD) that have been established in a number of Southeast Asian countries also have been used in part to improve co-ordination and integration of environmental objectives and policies (see the discussion later in this section).

Environmental Impact Assessments (EIA) and *Strategic Environmental Assessments* (SEA) have been extensively used in OECD countries and increasingly in developing countries as a means of incorporating environmental considerations in economic policies. EIAs are typically used to assess the environmental implications of specific projects or plans, for example the construction of a dam. EIAs have tended to be applied after a plan is formulated and focus on identifying their direct environmental impacts (for example, the impact of construction of a dam on local water supply).

SEAs comprise a set of analytical tools and participatory approaches to integrate environmental concerns into government plans, policies and programmes and to assess their interrelations with broader social and economic development goals. For example, SEAs can be used to assess the implications for environmental objectives of regional development strategies; or of a proposed reform of energy subsidies and the risks that the reform will have unintended consequences (OECD, 2012a). SEAs include EIAs as a tool but typically are applied at an earlier stage of the planning process and with a broader and longer perspective.

An increasing number of developing countries have been constructing SEA frameworks to improve their mainstreaming of environmental objectives (Box 2.6). SEA programs in Asian developing countries are most advanced in China and Viet Nam but are at various stages of development in the majority of other Southeast Asian countries, including several of the lowest income countries (Lao PDR and Cambodia) (Dusik and Xie, 2009). SEAs are significantly more demanding in terms of strategic capabilities, technical expertise, and information than EIAs (which are demanding enough) and need to be developed over time and adapted to country capacities.

Box 2.6. **Strategic Environmental Assessments (SEAs) in China and Viet Nam**

China began to develop a framework for the implementation of SEAs in the mid-1990s as a means to broaden the scope of its EIAs beyond consideration of direct environmental impacts. The revised Environmental Impact Assessment Law that took effect in 2003 mandated inclusion of SEA elements in environmental assessments. The Law requires that environmental assessments be prepared as part of plan formulation (rather than after the plan has been formulated as is often the case with traditional EIAs) and (in the case of sector plans) that the assessment be carried out by outside experts. The Law also requires consultation with other concerned institutions and actors, including the public. SEAs have been applied to a wide range of areas, including regional and urban development plans, industrial sector plans, and land use plans.

In Viet Nam, the revised Law on Environment Protection (LEP) that took effect in 2006 mandates the application of SEAs to national socio-economic development strategies and plans; regional development plans; plans for land use, forest protection and development; and plans concerning the exploitation of inter-provincial water and other natural resources. Although at an earlier stage of development than in China, SEA pilot projects are being applied to a growing number of sector and regional development plans. The major government agencies involved in development have been working since 2008 on means to implement and evaluate SEAs, as well as to improve inter-agency co-ordination in their preparation and implementation.

Viet Nam has used SEA tools to assess the environmental, economic, and social implications of the Quang Nam Hydropower Plan (2006-2015) incorporating nearly 60 separate large-scale projects (Dalal-Clayton and Bass, 2009). The SEA involved both local and national stake-holders and focused on four strategic concerns: integrity of eco-systems; water supply; impacts on ethnic minorities; and economic development in Quang Nam and Da Nang provinces. The SEA identified a number of adverse implications of the plan that threatened its overall sustainability; and made a number of recommendations for improvement, some of which were subsequently adopted by the government.

Effective and efficient instruments are key to attaining environmental objectives

The implementation of environmental policies requires effective instruments to affect the actions of economic actors whose activities may have adverse environmental impacts. These instruments are of two basic types: *command* instruments (CIs) that directly prescribe standards or prohibit harmful actions; and *market-based* instruments (MBIs) that use market signals or other economic incentives to affect behaviour which has an impact on the environment.

Examples of CIs are limits on pollution emissions by industrial factories or by motor vehicles; minimum water quality standards that must be sustained by water authorities; or limits on the amount of timber that can be cut from forests. MBIs include environmental taxes and equivalent (ETIs, i.e. taxes and subsidies on environmental emissions, user or other fees, and tradable permit schemes – see OECD, 2011). They also include: license, concessions and quota schemes used to manage exploitation of natural resources; payments for environmental services; and certification or labelling systems for environmentally friendly products or services.

CIs are the most widely used environment instruments in OECD and developing countries. They have the advantage being relatively easily understood and applied and of achieving (if enforced) a specific environmental goal, such as the maximum of air pollution in a city. However their effectiveness depends on mechanisms for enforcement, for monitoring of compliance, and on systems to produce the information needed to assess the global effects on the environment and to set standards. Command instruments can require considerable technical expertise to set appropriate standards and may need to be changed frequently to adapt to changing circumstances (UNESCAP, 2003). A major drawback of command instruments is that they tend to achieve their environmental goals inefficiently. This is because they generally require all actors to meet the same standards without taking account of the fact that some actors can do so at lower cost than others (OECD, 2011).[12]

MBIs place all or part of the cost of the environmental damage onto the source of that damage or allow those who engage in environmentally beneficial behaviour to share in the benefits. For this reason, MBIs tend to improve the efficiency of achieving a given environmental objective compared to command instruments. For example, with a tax on factory pollution, producers that face lower costs of abatement will reduce their emissions more than those facing a higher cost; and the total costs of attaining a given global amount of pollution reduction will be lower than with a command instrument. MBIs also are better at encouraging investment in innovations to more efficiently reduce pollution or to use natural resources. ETIs have the further benefit of raising revenues that can be used for other socially beneficial purposes.

Skilfully designed MBIs can be very effective

MBIs, especially ETIs, often require more developed institutional capacities than command instruments to be effective. For example, successful imposition of a tax on factory pollution requires a reasonably well developed and efficient system for business taxation and means to enforce compliance. Because they operate less directly than command instruments, the effects of MBIs on their objectives are less certain and for that reason their design can be more demanding in terms of information and technical expertise. Some environmental taxes, such as those on fuel, can impose unacceptable burdens on poorer households unless alleviated by reduced income or other taxes, which can be difficult to implement when tax systems are in an earlier stage of development.

These reasons largely explain why MBIs, especially ETIs, have been little used in most developing countries. Environmental taxes are mostly confined to excise or other taxes on automobiles, and Singapore and Thailand are the only countries in the region that presently tax gasoline (OECD, 2011). A number of countries in the region subsidise rather than tax home fuel use (mainly) in order to support poorer households. However, the use of ETIs has been growing and is likely to increase further as institutional capacities improve. Notably, Viet Nam instituted a general environmental tax in 2011 that applies to a wide range of fuels and lubricants, as well as certain herbicides, pesticides, disinfectants and preservatives, and plastic bags.

Experiences within the region also illustrate that MBIs and other policies that rely on economic incentives can be both beneficial and feasible if they are carefully adapted to the situations to which they are applied and to a country's institutional capacities. Instruments that combine environmental conservation with income generation for households are likely to be particularly effective (Sovacool, 2012).

Payments for eco-system services (PES) have been used in a number of developing countries to promote sustainable management of forests, marine, water and other natural resources. These involve payments to landowners, businesses, or individuals for providing environmental "goods" such as clean water, control of soil erosion, or the sustainable exploitation of forests. Some PES schemes involve direct, contracted payments to owners or custodians of environmental resources by those deriving benefits from them. Such arrangements require reasonably well defined property rights and identification of the beneficiaries. More often, the payments under PES schemes are made by governments through NGOS on behalf of the beneficiaries. China has used PES extensively to protect its watersheds and to reduce erosion. In 2008, Viet Nam began a pilot project to promote protection and conservation of forests whose results so far have been fairly encouraging.

Certification and labelling (CAL) can also be used to provide a positive return to compliance with environmental standards. Products that are certified as free of environmental contaminants or produced by environmentally friendly processes can sell at a premium and in some cases have wider access to export markets (where importing countries give preferences to goods that meet environmental standards) than those that are less environmentally friendly. Certification schemes have been applied in a number of developing countries, including Myanmar, to agricultural areas or forests that adhere to specified standards for environment-preserving practices. Effective CAL schemes require standards for compliance, means to verify that the standards are complied with, and labelling or certification of that compliance – all of which can be costly to producers if not effectively designed (OECD, 2012a).

Finally, governments can also harness economic incentives to promote environmental goals by allowing commercially oriented businesses to provide certain environmental services, by incorporating environmental considerations in public procurement decisions, and by encouraging "green" social enterprises (OECD, 2012a). For example, using private companies or private-public partnerships in water treatment, allowing them to charge for their services, can improve efficiency and encourage users to reduce their use of polluting substances. Experiences in India, Brazil, and other developing countries have demonstrated the potential benefits of "social" enterprises that, with the right enabling conditions, can be commercially successful while pursuing environmental objectives (e.g. the provision of alternative energy sources).[13]

Involvement of non-state stakeholders and local communities is essential

Effective environmental policies and their integration cannot simply be a top down process whereby the government initiates and other actors simply react. Businesses, households, and civil society organisations involved in environmental conservation make most of the concrete decisions that affect the environment and they need to understand the objectives and rationale of environmental policies. Involvement of these non-state actors in policy-making and implementation can increase their perceived stake in the policies' outcome. Government policy makers must understand the conditions and needs of these actors to design policies that have the intended effects. Households and businesses that are involved in environmental policy decisions are likely to be more aware of their rationale and of their own stake in the decisions' outcomes. However the role of non-state actors needs to be well defined and supported by an enabling environment that allows and encourages their participation if they are to be effectively involved in environmental policy-making.

Most developing countries have created National Councils on Sustainable Development (NCSD) to involve non-state actors in the planning, formulation, and implementation of environmental policies and their integration with broader development policies (UNESCAP, 2003).[14] The Councils bring together officials from government ministries and agencies and representatives from the business sector, labour organisations, NGOs, and other non-government stakeholders. In most cases, including those in Southeast Asia, the Councils have an advisory rather than direct decision-making role.

The Philippines NCSD illustrates the important contributions the Councils can make as well as some of their limitations (Box 2.7). As with inter-government co-ordinating bodies, the Councils tend to be most effective when there is active participation by very high government officials, where they have high visibility so that non-state actors participate at a high level, and where the division of authority with other government co-ordinating organs is clearly defined (OECD, 2011).

Box 2.7. **The Philippine Council for Sustainable Development**

The Philippine Council for Sustainable Development (PCSD) was established by Presidential decree in 1992 as a mechanism for realising the country's goals for sustainable development and their integration into national development plans, policies, and programmes, in accordance with the Philippines "Agenda 21" (PA21) strategy. The Council serves as an advisory body to the National Economic Development Agency (NEDA), the country's main planning agency, on the integration of environmental concerns into broader economic policies. The mandates of the PCSD include: the formulation of the PA21; the incorporation of the Agenda's objectives into major government plans, including the medium-term plan; and formulation of the national strategies for bio-diversity conservation.

The Council is chaired by the Director General of the NEDA with the representative from the Department of Environment and Natural Resources serving as vice-chair. The council includes representatives from government ministries and from NGOs, business, and trade unions. The Council meets quarterly with the Philippines President to discuss issues and concerns relating to environmental policies. The Council's mandate is to advise on environmental issues and policies but the responsibility for policy decisions rests with the government ministries, the legislature, and the executive branch.

The main strengths of the Council are first that it provides a high visibility forum for identification and discussion of environmental issues in the context of broader economic and social policies; and second, that it brings together government officials and representatives from private-sector groups with stakes in environmental policies and their outcomes. The Council's effectiveness is constrained by the fact that it can only recommend policies to officials and agencies that still tend (if less than in the past) to view environment matters as of subordinate importance to their central missions. Agencies often designate relatively lower ranking officials to serve on the sub-committees of the Council that carry out its main substantive work.

A variety of arrangements at grass-roots level to involve local farmers, villagers, and other actors in the formulation and implementation of environmental policies have been found to significantly enhance environmental conservation efforts and promote their integration with other economic imperatives (Sovacool, 2012; OECD, 2012a). These arrangements typically involve participation of local stakeholders in the management of local forests, agricultural lands and other resources together with government experts and NGOs, who provide training and other support (see next section for some examples). Community involvement draws on the expertise of local stakeholders about the detailed conditions of the eco-resources they depend on, while increasing their knowledge and capabilities to sustainably exploit those resources. Such arrangements often offer local actors the prospect of increasing their income as they improve their management of the resources, which makes the government policies better understood and more acceptable. However, effective community engagement arrangements depend on a number of requirements: identification and selection for participation of those local actors best placed and motivated to manage the resources; well-trained government staff to provide the training and technical advice; and co-ordination with NGOs and other actors involved in local environmental issues.

Myanmar's legal framework and institutions for environmental policy are at an early stage

Myanmar's recent opening gives it the opportunity to construct institutions for environmental conservation and its integration with broader development policies somewhat ahead of the emergence of the severe environmental problems that have accompanied rapid industrialisation in other countries. The decisions of the new government to suspend several major infrastructure projects (in part) to allow more time to consider their impacts on the environment and local residents have provided a promising indication of the government's commitment to sustainable development. However, there are also serious risks that the currently weak institutional setup will, if not rapidly strengthened, be overwhelmed by the expected take-off in development and resulting intensifying competition for access to the country's resources among the population, local and foreign businesses, and government policies.

Myanmar has laws addressing key environmental domains and policies, including laws on forestry, mining, the protection of wildlife and natural habitats, and the conservation of water resources and rivers. It adopted an overall National Environmental Policy Law (NEPL) in 1994. The country is also a signatory to a number of international conventions on environmental protection and has adopted an "Agenda 21" strategy for sustainable development.

However, the legal framework that has governed environmental policy is dated and reflective of the predominant emphasis until recently on state domination of the economy and the priority on agricultural development and natural resource exploitation. The laws, including the NEPL, mainly spell out aspirations and broad goals but provide limited specific direction as to how they are to be achieved (Sovacool, 2012). There are important gaps in the laws coverage: for example they do not cover pollution, provide for formulation of environmental standards in some key domains, or for EIAs (BEWG, 2011).

The authorities have recognised the need to modernise the legal framework for environmental conservation and its integration with broader development goals and have taken a number of important steps toward these goals over the past five years. The new constitution adopted in 2008 specifically mandates that the government shall "….protect and conserve the natural environment…" and empowers the national legislature to enact laws to achieve that objective; local governing bodies are empowered to enact environmental laws for their jurisdictions, subject to their consistency with national law.

The new Environmental Conservation Law (LEC) first proposed in 2011 and enacted in 2012 represents a very important step toward establishing a firmer legal foundation for more effective environmental policies and their harmonisation with broader development objectives (Box 2.8). The final Law represents a revision of the 2011 draft in response to suggestions from international NGOs and other groups.

Box 2.8. **The New Law on Environmental Conservation (LEC)**

The LEC represents a significant strengthening of the original version proposed in 2011 in response to critical comments from NGOs and other outside observers (Thein, 2012; BEWG, 2012). Under the LEC, the Ministry for Environmental Conservation and Forestry (MOECAF, formerly the Ministry for Forestry) is given broad responsibilities for formulating, promulgating, and implementing policies in a full range of environmental domains. Specific responsibilities include: implementation of environment conservation policies and development of national and local environment management plans; formulating environment quality standards for water, air, solid waste and other environmental domains; and specification of hazardous wastes and promotion of development of facilities for their treatment. MOECAF is also tasked with the development and implementation of systems for monitoring pollution; for EIAs and Social Impact Assessments (i.e. SEAs); for advising other relevant government organs on urban land use and other policies affecting the urban environment; and with formulating policies and recommendations for "economic incentive instruments" and other means to charge polluters for environmental damage and other actors who benefit from environmental services.

MOECAF is given responsibility for designating what types of industrial operations will require prior approval before setting up operations (i.e. to assure that they conform to environmental and other regulations). It is also given the power to recommend (in most cases) that other government departments cease from taking actions or implementing policies that would cause harm to the environment.

The LEC mandates the establishment of the Environment Conservation Committee (NECC, presumably as successor to the earlier NCCE), to develop overall strategies for environmental conservation and enhancement and to co-ordinate those policies across the government. The NCEE is chaired by a Minister designated by the government with "suitable members", presumably from other government agencies (although these are not specified by the LEC itself). The NCEE is given the power to identify policies by government agencies that harm the environment and to recommend (in most cases) to the government that they be stopped.

The new Law addresses the full range of environmental domains. It gives the Ministry of Environmental Conservation and Forestry (MOECAF) extensive authority to formulate policies for environmental conservation, including environmental standards and development of systems for monitoring pollution and other environmental hazards. The Law addresses most of the key gaps in previous legislation and provides authority to develop more market-based environmental instruments and lays the basis for the use of EIAs. It also provides for a mandate for co-ordination and integration of environmental policies with policies pursued by other government agencies (see below).

Overall, the LEC provides a good legal foundation and basic framework for improving the effectiveness of Myanmar's environmental policies. However other key laws on the environment will need to be amended (or replaced) and some new laws enacted if the framework is to be effectively implemented. In particular, a law on EIAs and SEAs will be needed to actualise the LEC provisions on these policies. A number of the authorities specified in the Law, such as the regulation of private industry and charges and sanctions for pollution are likely to require further elaboration through legislation.

Mechanisms to co-ordinate environmental and other policies are limited

Government organisation of environmental policies in Myanmar reflects the strong sector focus typical of most developing countries. The key sector ministries formulate and implement specific environmental policies directly affecting their areas of responsibilities. For example, the Ministry of Livestock, Breeding and Fisheries is responsible for marine and freshwater fisheries management; the Ministry of Agriculture deals with environmental issues in the agricultural sector; while the Ministry for Road Transport regulates vehicular emissions. Responsibility for certain issues is shared among several government agencies; for example, urban and rural water development policy responsibility is divided among the Ministry for Irrigation, water resource utilisation departments at the local level, the Yangon and Mandalay city development committees, and a number of other agencies (ADB, 2008).

Unlike most other countries in Southeast Asia, Myanmar does not have a dedicated Ministry or separate high-level agency to formulate economy wide environmental policies and to co-ordinate their integration with other policies (ADB, 2008). The National Commission on Environmental Affairs (NCEA), created in 1994, and now (since 2005) lodged with and chaired by the Ministry of Forestry, serves as the lead body on environmental conservation. The Commission includes member-representatives from other government ministries and agencies. The NCEA is responsible for formulating overall environmental policies (including environmental standards, standards for natural resource exploitation, and for pollution control) and has a co-ordinating mandate to promote environmental policies that balance environmental needs with other development objectives. It has responsibility for the formulation and implementation of Myanmar's Agenda 21 strategy for sustainable development.

The ability of the NCEA to carry out its assigned roles, particularly for co-ordination, has been severely limited by its comparatively low status among government agencies, its lack of direct authority to intervene or participate in environmental policy formulation by sector Ministries, and by limited technical and staff capacities due in part to its very limited budget (Habito and Antonio, 2007; Sovacool, 2012). For much of its life, the Commission seems to have been focused on relations with international donors and agencies rather than domestic policy, as indicated by the fact that until 2005 it was lodged in the Ministry of Foreign Affairs and chaired by the Foreign Affairs Minister. Participation in the NCEA is often of limited priority for sector ministries, who not infrequently designate lower ranking officials as members of the key NCEA sub-committees responsible for specific policies. Co-ordination of the NCEA with the Ministry for National Planning and Economic Development (MNPED) also has been limited, with NCEA providing little input into the formulation of the National Plans while the MNPED had little involvement in the formulation of the country's Agenda 21 plan (Habito and Antonio, 2007).

The fragmented and weakly co-ordinated division of responsibilities for environmental policies has led to conflicting priorities, duplication, and gaps that have limited their overall effectiveness. In some areas, there have been too many actors working at cross-purposes. For example, the Forestry Ministry's authority to manage and protect mangrove forests is sometimes in conflict with the Fisheries authority's mandate to regulate shrimp farming (ADB, 2008). In other areas, there has been no clear responsibility for other important issues, notably air and water quality standards. The overall result has been a subordination of environmental conservation to sector priorities that has aggravated environmental problems in forestry, agricultural, and water resource domains.

In an effort to improve co-ordination and integration of environmental policies, the Government established the National Coordinating Commission for the Environment (NCCE) in 2004, with representatives from central government ministries, as well as from local authorities.[15] There are also several other national commissions that have co-ordinating responsibilities in specific environmental domains, notably the National Commission for Water and the National Commission for Combating Land Degradation. The division of responsibility among these co-ordinating bodies is not clear.

The new LEC does not seem to fundamentally change the formal allocation of responsibilities for environmental policy co-ordination and integration. Promotion of co-operation among government organs and with international organisations, NGOs, and individuals is an explicit objective of the Law, which directs the government to form a National Environmental Conservation Committee (NECC) to be chaired by a Minister designated by the government. The overall mandate of the NECC is to mobilise environmental conservation activities in accordance with the overall objectives specified in the LEC. The NECC is given an explicit mandate to work with other government organs on environmental issues and in principle to restrict or prohibit activities or policies carried out by those other organs if they would be harmful to the environment.[16] However the LEC is not clear as to whether the NECC has the power on its own to force compliance by other Ministries or only to recommend to the government that they be restrained.

Formally, the NECC appears quite similar to the NECA (which it presumably replaces) and whether its role will be mainly advisory or become something stronger remains to be determined. The increased visibility and priority given to environmental conservation and its integration into economic development policy, along with the mandate given to the NECC, could potentially lead to a more effective co-ordinating function. As indicated earlier, such bodies tend to be more effective when chaired by a very high level government official, such as a vice-premier or the head of the national planning agency. This possibility is left open by the LEC since it does not specify that the NECC be chaired by the Ministry of Environmental Conservation and Forestry, as has been the case with the NECA (Thein, 2012).

EIAs, SEAs and other instruments need to be further developed and their use expanded

The lack of tools to assess environmental impacts of development policies poses a serious risk that the proliferation of infrastructure projects, development of special economic zones and other development policies over the medium term will interfere with the achievement of Myanmar's sustainable development objectives. Unlike its regional neighbours, Myanmar's present laws do not require the use of EIAs for major projects nor provide a framework and standards for their use. The relatively few EIAs that have been carried out have not always met international best-practice standards (BEWG, 2011).

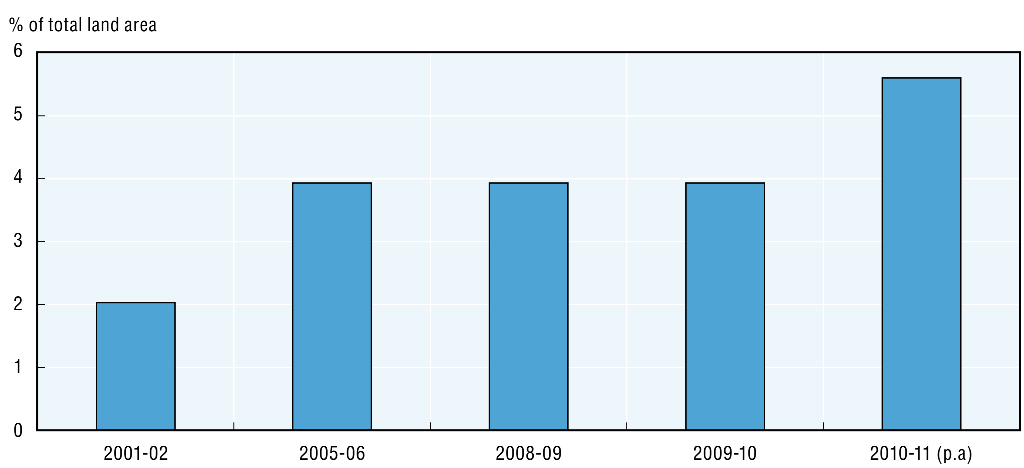
Completion and passage of the EIA law now under consideration needs to be given high priority, especially since development of the technical, information, and other capacities to conduct good EIAs will take some time. Procedures and standards for the conduct of EIAs need to be specified in line with international standards, including the circumstances under which EIAs must be undertaken, the factors they must include, provision for public participation in the EIA process, along with effective means for enforcement. Preferably, the EIA process should be designed to provide a foundation for the use of more broadly focused SEAs as soon as possible. Myanmar should be able to benefit from the experiences of other countries in the GMS, who have been improving their EIA and SEA tools for a number of years (Habito and Antonio, 2007).

Direct controls are the overwhelmingly dominant environmental policy instruments now used in Myanmar. Much of the regulation of forests and other areas is applied through the protected forest reserves and other protected areas. The country's forests are largely protected through limits on timber cutting, prohibition in most cases of the shifting of cultivation into the protected reserves, and other regulations. Shifting of cultivation into non-protected forests also requires permission from local authorities. Motor vehicle pollution and solid waste are regulated through direct limits.

A number of factors have limited the effectiveness of the instruments. Enforcement is at best mixed, due in part to limited enforcement staff and their limited training (Sovacool, 2012). As noted earlier, illegal logging and mineral exploitation as well as encroachment of agricultural cultivation into the protected forest reserves is rampant. The potential economic gains from these illicit activities often outweigh the fines imposed for violations (Sovacool, 2012).

The protected areas may be too small for effective forest conservation, at least so long as they serve as the primary means to achieve that end. Until very recently, forests under the Protected Area System (PAS) accounted for about 4% of the land area in Myanmar (Figure 2.10). In contrast, Thailand has adopted a target of placing 25% of the country's land area under protected forests by 2006. The area in Myanmar under the PAS was increased significantly in 2010-11 to 5.6% of the total land area. This is just within the long-standing target of the National Wildlife Conservation Department to place 5% to 10% of the land area under protection within ten years (Sovacool, 2012). Consideration might be given to increasing the protected area further toward the mid-point or upper bound of that range.

Figure 2.10. **Protected forests are still small but increasing**



Source: CSO (2012b), *Myanmar Forestry Statistics (2001-02 to 2010-11)*, Central Statistical Organization, Ministry of National Planning and Economic Development in collaboration with Ministry of Environment Conservation and Forestry, Nay Pyi Taw, Myanmar.

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There are very few MBIs or related economic incentive instruments presently being applied in Myanmar. The government does provide preferential loans for conversion of motor vehicles to combustible natural gas (CNG) (ADB, 2008). A system of forestry certification has been under development since the late 1990s, based on criteria for sustainable forestry management, although it has not yet been introduced.

The limited use of incentive instruments is not surprising given the limited industrialisation and private sector development, the early stage of development of the tax system, and weaknesses in institutions supporting the effective functioning of markets. The scope for the use of such instruments should increase as the country develops. In fact, the new LEC includes mandates for establishing mechanisms to ensure that polluters pay for environmental damage from their activities and that beneficiaries from environmental resources pay for those benefits.

There are some areas even under present circumstances where the use of economic incentives could be usefully expanded. A number of countries in the Southeast Asian region, including Singapore and Thailand, have turned over waste collection responsibilities to licensed companies in order to attain greater efficiency.[17] Given that solid waste management often consumes a large fraction of municipal budgets in Asian developing countries, most of which is attributable to collection, such efficiency gains can be a significant boost to municipal finances (Asia Productivity Organization, 2007). The solid waste management arrangements in the two major cities in Myanmar seem sufficiently well developed to allow the phased devolution of waste collection to private entities, as well as greater use of fees on waste disposal and other incentives to limit waste accumulation and encourage recycling. Experiences in other countries cited earlier also suggest that payment for ecological services arrangements could be feasible and beneficial in conservation of forests and management of water eco-systems in Myanmar.

Stronger mechanisms for participation by non-government actors could bring substantial benefits

Non-government actors – local communities, NGOs and businesses – are a major resource that if effectively mobilised can greatly increase the chances that Myanmar's sustainable development objectives will be achieved. As discussed below, participation by local communities in the management of local resources has already yielded significant benefits in Myanmar. NGOs have played a major role in supplying resources and technical support for many environmental and poverty-reduction initiatives and are likely to continue to be important in the future. Consultation with the business sector will be necessary to ensure that environmental policies are efficiently designed so that they do not place unnecessary burdens on businesses' ability to compete.

Effective involvement of these non-government actors is likely to require support from the government to strengthen the institutional and social capital necessary to such involvement. Creation of a NCSD to bring together government officials and representatives from the local NGOs, businesses, and community organisations would be a useful step toward improving mutual awareness among the actors of environmental needs and concerns. Local community groups need to be empowered through respect for their legal rights to advocate and advise policy makers on environmental issues.

The predominance of the rural sector in Myanmar's economy and its dependence on forest, land and water resources, makes extensive participation by local communities in environmental conservation essential. A number of experiences with community participation in Myanmar indicate that the benefits can be substantial. A good example is a programme involving coastal villagers in the sustainable exploitation of the dugong, a marine mammal endangered by over-exploitation and pollution, and training in its ecological needs (Sovacool, 2012). The programme greatly improved the villagers' awareness of the need and means to exploit the dugong in a sustainable fashion and helped to significantly improve the dugong's survival prospects relative to other countries in Asia.

Myanmar's programme of community co-management of forest resources under the Community Forest Instructions, further illustrates the potential benefits as well as some obstacles that need to be overcome. The programme, which began in 1995, has been a key element in the government's forestry management and conservation efforts (ADB, 2008). Under the Instructions, local groups can form Forestry User Groups (FUGs) to work with local authorities and NGOs to supply basic needs for firewood and other forest products from designated local forest areas while carrying out reforestation and other conservation activities.

The experience with the programme has shown that community participation can help to slow deforestation and improve forest management (Sovacool, 2012). The government has set a target of placing 1.5 million acres of forest under the programme by 2030, but is far behind this goal, with only about 100 000 acres of community forests having been established by 2010. In fact, the rate of additions to the community forest (CF) area has slowed to a near stand-still since 2001 (Tint, Springate-Baginski and Ko Ko Gyi, 2011).

The factors behind the slow growth of the community forests illustrate both the requirements for successful community involvement in environmental conservation and the potential obstacles and pitfalls. There has been increasing competition between local communities and business and other foreign interests for access to local forest resources. The higher priority often given by sector government ministries to the latter may have been a factor in the slow rate of approval of applications to set up CFs. Competition for access with outsiders in the absence of legally sanctioned ownership rights by local communities in their forests also seems to have created an incentive in some cases to establish FUGs even when their immediate benefits to the local population are limited. This situation can create unintended problems, for example by creating incentives to encroach on forest outside the CFs or other environmentally damaging behaviour in order to continue to meet subsistence needs. Effectiveness of the programmes has also been compromised in some instances by a tendency to award the property rights in CFs to groups with greater influence with authorities but which may not be as effective as poorer, less influential local groups with closer connections to the forest area.

Laying the foundations for an enabling environment for private initiatives

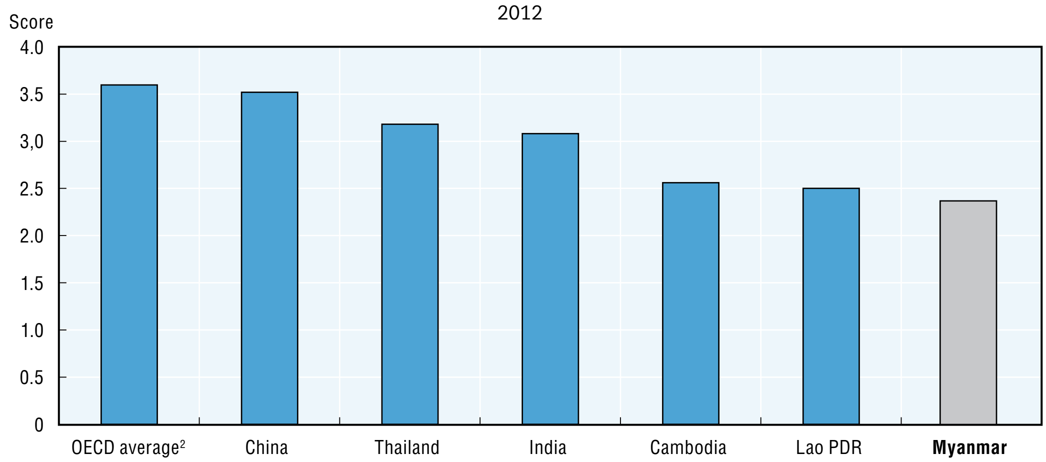
The business sector could potentially become a driving force of Myanmar's economic development, provided the right institutional framework conducive to entrepreneurship and private initiatives is put in place. While foreign direct investment is needed to acquire technology, domestic private initiatives are equally important in paving the way of industrialisation. Business produces and supplies value-added through goods and services to society while developing technology, creating jobs and generating incomes. Although Myanmar is rich in natural resources and has abundant low cost labour,[18] it has not successfully managed to realise its full potential as a result of its centrally-planned economy, bureaucratic mismanagement and the economic sanctions imposed by a number of developed countries (UNESCAP, 1996; ADB, 2012b).

Business surveys conducted in Myanmar so far (Kudo, 2002 and 2005; JETRO, 2009 and 2012; Oo, 2013) have identified significant impediments to business, including common problems with: access to capital and credit; poor trade facilitation and high customs related fees; cumbersome business and trade licensing and permits; shortages of electricity; and weak telecommunications and inefficient transportations systems. Other identified challenges include a shortage of spare parts and raw materials, a low level of advanced technology utilisation, machinery and equipment deficiencies, and shortages of foreign currency. According to the World Bank's Logistic Performance Index (2012), Myanmar ranked 129 out of 155 countries in the world in terms of logistical efficiency (Figure 2.11). Similarly, Transparency International (2012) ranks Myanmar near the bottom of the Corruption Perceptions Index at 172 out of 176 countries, and the last among the ASEAN countries.[19]

The infant stage of the business sector and the large number of impediments to its development can, at least to some extent, be explained by Myanmar's past economic systems. Since its independence from the United Kingdom in 1948, Myanmar has followed a socialist economic model. In 1962, the government nationalised major businesses throughout the country and expropriated agricultural land. Markets were dismantled and many commodity and product prices were fixed by the government, which extended direct control over the allocation and distribution of commodities and products (UNESCAP, 1996). However, a reversal transpired beginning in 1987. The government worked to re-open markets and expand the role of private businesses while reducing the degree of state interventions, to promote integration into regional and global economies and to attract FDI (UNESCAP, 1996). Since the middle of the 1990s, the government has also adopted corporatisation and privatisation strategies for the reform of state-owned enterprises (Than, 2007). During this period, a number of business laws were introduced to encourage reform, notably the FDI Law (1988), the State-owned Economic Enterprises Law (1989), the Private Industrial Enterprise Law (1990), the Promotion of Cottage Industries Law (1991), the Cooperative Society Law (1992), the Hotels and Tourism Law (1993) and the Myanmar Citizens Investment Law (1994). In contrast to these wide-ranging efforts, the Myanmar Companies Act (1914) and associated rules (1940) and regulations (1957) remained in their original forms, providing the basic legal and regulatory framework for business.

Figure 2.11. **Logistics performance lags behind peers**[1]

2012



Notes: 1. This index is based on six criteria, namely customs clearance process (i.e. speed, simplicity and predictability of formalities); trade and transport related infrastructure (e.g. ports, railroads, roads and information technology); international shipment cost; logistics services (e.g. transport operators and customs brokers); tracking and tracing; and timeliness. 2. No data for Israel.

Source: World Bank (2012), *Logistics Performance Index: Connecting to Compete 2012*, http://lpisurvey.worldbank.org/domestic/performance, (accessed 27 April 2013).

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The business sector is dominated by small and informal enterprises

Comprehensive and consistent data describing private firms are not readily available in Myanmar. Although the Ministry of National Planning and Economic Development has served as the focal point office for business investments and enterprise registration throughout the country, its statistics are limited mainly to enterprises registered under the Myanmar Companies Act (1914) and the Myanmar Citizens Investment Law (1994). The Ministry also maintains information regarding foreign enterprises which are registered under the Foreign Direct Investment Laws (1988; 2012) (DICA, 2013a).

Data released by the Office of the President in January 2013 show that Myanmar has approximately 127 000 registered enterprises, and 99.4% of them are small and medium-sized enterprises (SMEs) (Table 2.1). The share of SMEs as a percentage of all businesses is in line with international baselines (UNESCAP, 2012a), although the working definition of SMEs provided by the government remains ambiguous (note that Myanmar has yet to formally define SMEs on a sector-wide basis).[20] The President's Office estimates that over 620 000 business entities, constituting over 83% of all Myanmar businesses, are in the informal sector; the majority of these are family-based establishments and self-employed workers (Nay Pyi Taw News, 2013).

Table 2.1. **Most businesses are small or informal**

	Number	Percentage
Formal sector		
Large enterprises	721	0.6%
Small and medium enterprises	126 237	99.4%
Total	126 958	100.0%
Informal sector	620 000	~ 83% of businesses

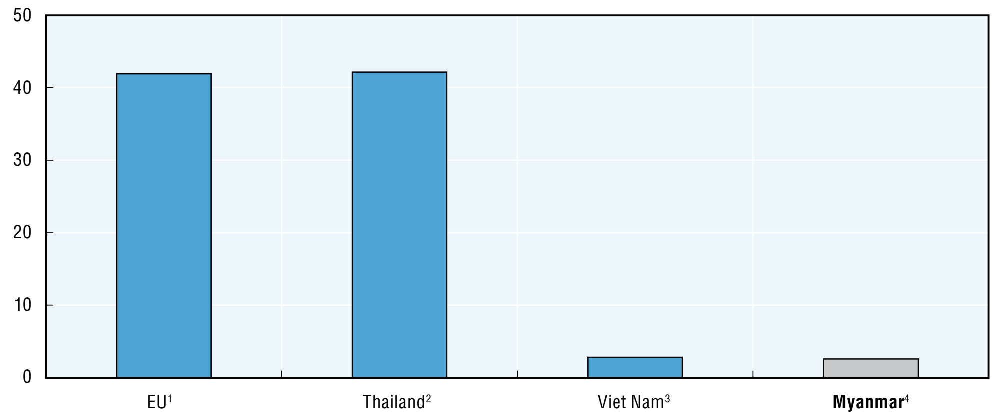
Source: Nay Pyi Taw News (2013), U Thein Sein delivers an address at Small and Medium Enterprises Development Central Committee meeting at Presidential Palace, 14 January 2013.

It is estimated that Myanmar has 2.6 SMEs per 1 000 people.[21] This number is far lower than that of EU countries or Thailand and slightly lower than that of Viet Nam (Figure 2.12). The comparatively small number of SMEs and the large size of the informal sector could be explained by a variety of reasons, including: *i)* a weak entrepreneurship culture; *ii)* a lack of incentives to enter the formal sector; *iii)* a remaining influence of the centrally planned economic system; and *iv)* the important role of state-owned enterprises in the market.

Further determination of the structure of Myanmar's business sector remains challenging because of a paucity of information. The majority of enterprises have not been captured by the data, in part because of the large number of micro or small-sized firms operating in the informal sector. While there is little reliable data available on employment in, or the output of, Myanmar's informal economy, it is a large and diverse sector, ranging in size from small family businesses to large enterprises. Informal work tends to be important in countries with high rates of poverty and institutional barriers in taxation, regulation, and the protection of property rights, all of which are significant challenges in Myanmar. Small informal businesses often have low levels of investment and productivity, while larger informal firms that avoid tax and regulation may result in a significant loss of potential government revenue and pose unfair competition to formal businesses. The transition of labour and other assets into formal work will therefore be an important part of Myanmar's development.

Figure 2.12. **SME density is low in Myanmar**

Number of SMEs per 1 000 people



Notes: 1. EU data not available for Greece and Malta. Data are for the year 2010. Employees <= 249 persons. Sectors include mining and quarrying; manufacturing; electricity, gas, stream and air conditioning supply; water supply, sewerage, waste management and remediation activities; construction; wholesale and retail trade, repair of motor vehicles and motorcycles; transportation and storage. 2. Thailand data are for the year 2010. Employees <= 200 persons. 3. Viet Nam data are for the year 2009. Employees < 300 persons. 4. Myanmar's totals are based on the data contained in Table 2.1.

Source: Authors' calculations based on Eurostat (2013), *Eurostat small and medium-sized enterprises (SMEs)* (database), European Commission, http://epp.eurostat.ec.europa.eu/portal/page/portal/european_business/special_sbs_topics/small_medium_sized_enterprises_SMEs, (accessed 13 May 2013); Office of Small and Medium Enterprises Promotion (2012), *Report on SMEs situation* (in Thai), Office of Small and Medium Enterprises Promotion, Thailand, www.sme.go.th/Pages/whitePaper/art_17.aspx; Ministry of Planning and Investment (2011), *White paper on small and medium sized enterprises in Viet Nam 2011*, Ministry of Planning and Investment, Viet Nam, www.economica.vn/Publications/tabid/113/topic/T18H16161015108716/Default; and Nay Pyi Taw News (2013), "U Thein Sein delivers an address at Small and Medium Enterprises Development Central Committee meeting at Presidential Palace", 14 January 2013.

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Fundamentally, the problems of describing the state of the business sector in Myanmar come from the country's regulatory and policy frameworks, as well as its fragmented institutional structure. There are a number of parallel line ministries which regulate the business sector in Myanmar, but there is insufficient co-ordination between these entities.

Myanmar categorises business establishments into various types and segments. This classification system uses the following criteria: *i)* ownership and nationality (e.g. state-owned, owned by a citizen, foreigner-owned, or a joint venture); *ii)* industry and the respective ministries which handle business registration or licensing for that industry (e.g. hotels and tourism); *iii)* the laws and regulations governing various types of businesses (e.g. manufacturers under the Private Industrial Enterprise Law [1990]); and *iv)* the size of the business (e.g. the "cottage industry" under the Ministry of Cooperatives). The detailed structure of the business sector in Myanmar is shown in Table 2.2 using the best available data. Due to incomplete information, only 106 000 enterprises – less than the totals presented in Table 2.1 – are captured. Nevertheless, data available on Myanmar's businesses include: *i)* state-owned enterprises;[22] *ii)* Myanmar enterprises; *iii)* foreign enterprises; *iv)* partnerships; *v)* joint ventures; *vi)* business associations; *vii)* manufacturers, classified by size (i.e. large, medium and small); *viii)* micro-sized enterprises; *ix)* business co-operatives; and *x)* hotels and tourism business establishments, including tour guides.

Table 2.2. **The regulation of the business sector is fragmented**

Type of business organisation	Number of organisations	Percentage	Description	Registration office	Licensing office	Legal framework
State-owned enterprises	639	0.6%	Only those in the industrial sector; various industries from light manufacturing to heavy industry[1]	Various governmental offices including the Ministry of Industry and other ministries	Various governmental offices including the Ministry of Industry and other ministries	State-owned Economic Enterprises Law (1989)
Myanmar enterprises	30 135	28.5%	Wholly owned and controlled by Myanmar citizens; possibly overlapping with manufacturing enterprises.	Ministry of National Planning and Economic Development	Ministry of National Planning and Economic Development and other related ministries; local municipal authorities	Myanmar Companies Act (1914) (and Companies Rules [1940]; Companies Regulations [1957]); Myanmar Citizens Investment Law (1994); Shops and Establishments Act (1951)
Foreign enterprises	1 686	1.6%	Wholly or partially owned or controlled by foreigners or braches of foreign enterprises; possibly overlapping with manufacturing enterprises.[2]	Ministry of National Planning and Economic Development	Ministry of National Planning and Economic Development and other related ministries; local municipal authorities	Myanmar Companies Act (1914) (and Companies Rules [1940]; Companies Regulations [1957]); Foreign Investment Law (2012)
Partnerships[2]	1 072	1.0%	No more than 20 partners; registration is not compulsory.[2]	Ministry of National Planning and Economic Development	Ministry of National Planning and Economic Development and other related ministries; local municipal authorities	Partnership Act (1932)
Joint ventures between state-owned enterprises and local enterprises	54	0.1%	Joint ventures with state-owned enterprises under the Special Company Act (1950) are exempted from obtaining a company registration; possibly overlapping with manufacturing enterprises.[2]	Ministry of National Planning and Economic Development	Ministry of National Planning and Economic Development and other related ministries; local municipal authorities	Myanmar Companies Act (1914) (and Companies Rules [1940]; Companies Regulations [1957]); Special Company Act (1950); Myanmar Citizens Investment Law (1994)
Joint ventures between state-owned enterprises and foreign enterprises	17	0.0%	Joint ventures with state-owned enterprises under the Special Company Act (1950) are exempted from obtaining a company registration; possibly overlapping with manufacturing enterprises.[2]	Ministry of National Planning and Economic Development	Ministry of National Planning and Economic Development and other related ministries; local municipal authorities	Myanmar Companies Act (1914) (and Companies Rules [1940]; Companies Regulations [1957]); Special Company Act (1950); Foreign Investment Law (2012)
Joint ventures between Myanmar enterprises and foreign enterprises	92	0.1%	Possibly overlapping with manufacturing enterprises.[2]	Ministry of National Planning and Economic Development	Ministry of National Planning and Economic Development and other related ministries; local municipal authorities	Myanmar Companies Act (1914) (and Companies Rules [1940]; Companies Regulations [1957]); Foreign Investment Law (2012)
Business associations	57	0.1%	Private but non-profit organisations	Ministry of National Planning and Economic Development	Ministry of Commerce; local municipal authorities	Myanmar Companies Act (1914) (and Companies Rules [1940]; Companies Regulations [1957]); Law relating to Forming of Organizations – NGO Law (1988)

Table 2.2. **The regulation of the business sector is fragmented** *(cont.)*

Type of business organisation	Number of organisations	Percentage	Description	Registration office	Licensing office	Legal framework
Large sized manufacturing enterprises	4 808	4.6%	Automobiles, electrical equipment, consumer goods and others	Ministry of Industry	Ministry of Industry; local municipal authorities	Burma Companies Act (1914); Private Industrial Enterprise Law (1990); Special Company Act (1950); Workshop Law (1951)
Medium sized manufacturing enterprises	7 287	6.9%	Industrial tools and equipment, consumer goods, raw materials, publishing and others	Ministry of Industry	Ministry of Industry; local municipal authorities	Myanmar Companies Act (1914); Private Industrial Enterprise Law (1990); Special Company Act (1950); Workshop Law (1951)
Small sized manufacturing enterprises	31 137	29.5%	Food and beverages, construction materials, metals and minerals, garment and apparel, agricultural machinery and others	Ministry of Industry	Ministry of Industry; local municipal authorities	Myanmar Companies Act (1914); Private Industrial Enterprise Law (1990);[3] Special Company Act (1950); Workshop Law (1951)
Micro sized enterprises	13 309	12.6%	Small scale manufacturing and services in various industrial sectors, such as food and beverage, garment and apparel, construction materials, household goods, etc.	Ministry of Cooperatives	Ministry of Cooperatives; local municipal authorities	Promotion of Cottage Industries Law (1991); Law Amending the Promotion of Cottage Industries Law (2011)[4]
Cooperatives in the primary sector	5 985	5.7%	Agriculture, fishery, livestock and forest	Ministry of Cooperatives	Ministry of Cooperatives; local municipal authorities	Cooperative Society Law (1992)
Cooperatives in the industrial and service sectors	3 596	3.4%	Manufacturing, trading, wholesaling, retailing, transport, finance, healthcare, hotels	Ministry of Cooperatives	Ministry of Cooperatives; local municipal authorities	Cooperative Society Law (1992)
Hotels and tourism enterprises	5 790	5.5%	Hotels, travel agents, transport providers, tour guides	Ministry of National Planning and Economic Development and Ministry of Hotels and Tourism	Ministry of Hotels and Tourism; local municipal authorities	Myanmar Companies Act (1914); Hotels and Tourism Law (1993)
Total[5]	105 664	100.0%				

Notes: 1. In addition, there are a number of state-owned enterprises in non-manufacturing sectors, such as agriculture, mines, energy, transport, trading, construction and post and telecommunications; 2. Those enterprises registered under the Myanmar Companies Act (1914) at the Ministry of National Planning and Economic Development have to register as exporters and/or importers at the Ministry of Commerce in order to conduct international trade. Non-manufacturing foreign companies are not allowed to directly get involved in international trade (see Control of Imports and Exports (Temporary) Act (1947); Export Import Law (2012)). In 2011, 1 221 enterprises registered for international trade; 3. The objectives of this law are public-supervision driven, with perhaps the exception of tax exemptions and reliefs, as it aims to facilitate manufacturers' access to necessary industrial inputs such as land, utilities and finance as well as raw materials and technologies, which are primarily private enterprises' responsibility in a market economy; 4. These two laws relating to micro-sized enterprises aim to provide government support for capacity building, particularly in technical areas, and access to finance, including tax break as well as access to state-owned enterprises and foreign markets; 5. Total number of enterprises in this table is significantly lower than information provided by the President's Office, which indicates that there are 126 958 private enterprises in Myanmar in January 2013 while nearly 620 000 enterprises are still unregistered (Nay Pyi Taw News, 2013).

Source: CSO (Central Statistical Organization) (2013), *Myanmar Data: CD-ROM 2011-12*, Central Statistical Organization, Ministry of National Planning and Economic Development, Nay Pyi Taw, Myanmar; DICA (Directorate of Investment and Company Administration) (2013a), *Data on Foreign Investment, Local Investment and Company Registration*, Directorate of Investment and Company Administration, Ministry of National Planning and Economic Development, Nay Pyi Taw, Myanmar, www.mnped.gov.mm; Central Department of SMEs Development Centre (2013), a presentation made by the Ministry of Industry on 16 January 2013; Small Scale Industries Department (2012), "Business opportunities in Myanmar", a presentation of the Ministry of Cooperatives, 17 December 2012.

State-owned enterprises remain important although less so than in the past

State-owned enterprises (SOEs) have played an important role in the economy of Myanmar for several decades. Military enterprises, operating across various sectors, are important in Myanmar (Box 2.9). Despite the implementation of market-driven reform measures since the end of the 1980s, SOEs still dominate many business fields like agribusiness, forestry, mines, energy, light and heavy industries, construction and telecommunications (Than, 2007). Although their share has been gradually and steadily declining since the early 1990s, SOEs accounted for 8.7% of GDP on average from 2004 to 2010, more than half of government revenues and over 40% of exports (Table 2.3). The IMF (2012b) estimates that the export of natural gas has accounted for more than 50% of public sector exports.[23]

While the private sector can presently enter into a number of industries without restriction,[24] SOEs still operate in major contributors to GDP, often competing with private enterprises. SOEs often enjoy preferential access to financing, which may limit opportunities for private investment. Although SOEs typically enjoy lower cost structures and better public services than those of private enterprises (e.g. preferential land allocation, discounted utility prices, a stable electricity supply, soft loans from state development banks and quick licensing, the majority of SOEs are not profitable [Table 2.3]; which also includes state-owned banks and financial institutions). This deficit structure strongly suggests that many SOEs require reform, perhaps including restructuring, as well as management changes, capacity building, and the adoption of corporatisation strategies.

The present government has taken seriously the need for SOE reforms (including corporatisation and in some cases privatisation). For example, the Ministry of Industry has reduced the number of industrial SOEs under its supervision from 142 to 49 in 2012, and plans to cut the number further to four strategically vital companies by 2014.[25] In addition to subcontracting, the government has encouraged private business to establish close connections with SOEs through joint ventures and partnerships for which the Special Company Act (1950) and the Partnership Act (1932) provide the legal structure. Such joint ventures and partnerships can provide access to markets and to finance for private business, while SOEs can acquire advanced management skills and technologies from private businesses.

It is important to ensure that the presence of state-owned enterprises in the marketplace does not thwart private entrepreneurs, skew competition or lead to other inefficiencies which ultimately limit growth and development. The challenge is to achieve "competitive neutrality" so that state-owned and private businesses compete on a level playing field. This calls on the government to address issues such as: choosing the best corporate form for SOEs, achieving a commercial rate of return, accounting for public service obligations, improving debt neutrality, and making public procurement open and transparent (OECD, 2012b).

It is easier to pursue neutrality if competitive activities are carried out by an independent entity, operated at arm's length from general government and shielded from ad hoc political interventions. SOEs should not be subject to undue competitive advantages or disadvantages. For example, government businesses should bear a similar tax burden as their private sector competitors, operate in the same regulatory environment, and be expected to pay the same interest rate on the debt obligations they incur as a private enterprise in similar circumstances. Public procurement practices should also be competitive and nondiscriminatory.

Box 2.9. **Military enterprises operate across various sectors**

In addition to state-owned enterprises, Myanmar enterprises, foreign enterprises, partnerships, joint ventures and co-operatives, there is another significant type of business in Myanmar: military enterprises (Araki, 2012). Military enterprises originated in the civil war during the 1950s. Under the control of the Ministry of Defence and the military leadership, they supplied necessary goods and services primarily for military operations. Contemporary examples of these companies include the Union of Myanmar Economic Holdings Ltd. (UMEH) and the Myanmar Economic Corporation (MEC).

UMEH is a corporatised, market-oriented military enterprise established during the market reforms of the 1990s. It was designed to encompass the governance practices of corporatisation. Today, the UMEH is the biggest conglomerate in Myanmar, with registered capital of USD 1.4 billion at present exchange rates. UMEH manages a diverse business portfolio, including: gems and teak; rubber products; fisheries; food and beverages; garments and apparel; construction; industrial materials such as steel, paints and cement; and electronic equipment. It also operates in the services sector, including trade, banking, hotels, retailing, transportation, real estate and telecommunications. It has funded a number of joint ventures with local investors and established nearly 50 ventures with foreign partners from Asian countries (such as Indonesia, Republic of Korea and Singapore).

MEC was established in 1997 and has also been involved in a wide range of business activities, including: gems and mineral extraction and exploration; the wood industry; steel production; construction; trading companies; agricultural produce; hotels and tourism; extraction and sale of petroleum and natural gas; and telecommunications.

Statistics on military enterprises are not available from national figures, which are compiled by the Central Statistical Organization of the Ministry of National Planning and Economic Development. Nor are they available in any other documents open to the public. Thus, there is no transparency with respect to military enterprises. Moreover, it would seem that no economic ministries supervise the joint ventures between military enterprises and domestic or foreign businesses. Under the Partnership Act (1932) and the Special Company Act (1950), such partnerships or joint ventures are exempt from line ministry registration. However, the Internal Revenue Department of the Ministry of Finance and Revenue has started collecting income taxes from military enterprises since January 2013; thus, more information on military enterprises is expected to be available to the public in the future.

Table 2.3. **State-owned enterprises are declining in importance**

(Kyats in millions)

	1990-91	1995-96	2000-01	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	Average between 2004-10
Revenue	32 042	88 183	284 396	677 938	1 120 886	1 675 585	2 268 592	2 483 607	2 544 762	1 795 228
Expenditure	3 636	101 854	412 711	926 443	1 346 100	2 008 645	2 702 130	2 988 346	3 082 022	2 175 614
Deficit	-4 320	-13 671	-128 315	-248 506	-225 214	-333 060	-433 538	-504 739	-537 259	-380 386
Contribution to GDP	21.1%	14.6%	11.1%	7.5%	9.1%	9.9%	9.7%	8.5%	7.5%	8.7%
Contribution to government revenue	65.7%	68.6%	67.9%	53.5%	57.6%	56.4%	56.6%	53.6%	54.0%	55.3%
Share of public export	n.a.	n.a.	n.a.	43.3%	45.1%	39.6%	36.9%	36.5%	42.5%	40.7%

Note: State-owned enterprises include state banks and other state financial institutions.

Sources: Authors' calculations based on CSO (Central Statistical Organization) (2013), *Myanmar Data: CD-ROM 2011-12*, Central Statistical Organization, Ministry of National Planning and Economic Development, Nay Pyi Taw, Myanmar; IMF (2012b), *Myanmar 2011 Article IV Consultation*, International Monetary Fund, www.imf.org/external/pubs/ft/scr/2012/cr12104.pdf; and Interconsulting (2013), *Myanmar Business Opportunities*, www.interconsulting.com.sg/myanmar-business-opportunities.htm.

Establishment of a robust legal and regulatory framework for business is an urgent priority

The legal and regulatory framework and institutional structure of business in Myanmar is fragmented. There is no effective centralised administrative system which includes registration or licensing for all business establishments, although the Ministry of National Planning and Economic Development formally has a central business registry. The Ministry has been designated to be a focal-point office for enterprise registration and administration, but it has not yet been able to capture the statistics of the entire business community.[26] A number of line ministries are involved in registration and licensing of individual businesses, as well as supervision of some business industries. For example, the Ministry of Industry supervises private manufacturing enterprises throughout the country, while exerting direct control over a number of state-owned manufacturing enterprises. The Ministry of Commerce provides licenses to exporters and importers[27] who register through the Ministry of National Planning and Economic Development.[28] A number of entities under the supervision of the Ministry of Cooperatives operate in various business fields (e.g. agriculture, food and beverages, light manufacturing and trading), while the Ministry of Hotels and Tourism regulates hotel and tourism businesses (CSO, 2013). It is expected that other economic ministries have their own business registrations and licensing schemes, and would therefore maintain statistics on the enterprises falling under their purview, but this information is not at present available for analysis.

As a consequence of this fragmented institutional framework, a variety of government-wide committees have been established for purposes of co-ordination on issues spanning industries and sectors (e.g. SMEs, industrial development, special economic zones, etc.). Another notable issue is that a partnership or a joint venture that is developed between a state-owned enterprise and either a domestic or foreign investor does not need to submit documents for company registration, potentially leading to less transparent management and finance in businesses that are established partially by the public.

Neither is there a common definition of enterprises among line ministries in Myanmar. The Myanmar Companies Act (1914), which was imported by the British authority from India to colonial Burma, and its related rules (1940) and regulations (1957), have no clear definition of enterprise, industries, and enterprise sizes. The Private Industrial Enterprise Law (1990) provides some definitions, such as for small, medium-sized and large enterprises, but its scope is limited to the manufacturing sector. On the other hand, the Promotion of Cottage Industries Law (1991) and the Law Amending the Promotion of Cottage Industries Law (2011) provides a definition of micro enterprises applicable to any sector and covers agribusiness, manufacturing and service sectors. In contrast, the Cooperative Society Law (1992) defines co-operatives across industries and sectors, including agriculture, manufacturing and services (inclusive of business financing and microfinance). The Hotels and Tourism Law (1993) regulates the business in the tourism sector.

There are three important features of the contemporary legal and regulatory framework for business in Myanmar. First, SOEs (including military enterprises) and their joint venture business partners are afforded a great degree of freedom and economic privilege. This can lead to less transparency in their operations. Second, joint ventures and partnerships between SOEs and private enterprises, including those financed through foreign investments, are not required to register as enterprises unless they otherwise apply for the incentives under the Foreign Investment Law (2012) or the Myanmar Citizens Investment Law (1994). Third, no legal and regulatory framework that is inclusive of the service sector as a whole has been developed. Rather, piecemeal rules exist for specific industries like banking, telecommunications and the hotels and tourism sector. Thus, there is no clear policy or measure for the development of various industries within the services sector, many of which are dominated by the public sector. The government must provide a level playing field for business competition, which is a prerequisite for inclusive and sustainable development in Myanmar. The current legal and regulatory framework has a large number of deficiencies that need to be fixed in order to turn the business sector into a driver of development (Table 2.4).

The government's private sector development agenda is focusing on fostering manufacturers …

Nearly three-quarters of private manufacturing enterprises are small (Table 2.5). The manufacturing sector contains a number of large enterprises, altogether 4 808 manufacturers, representing 11.1% of all manufacturing firms. The food and beverage industry dominates manufacturing in terms of the number of firms. High value-added and capital intensive industries, such as automobiles and electrical equipment, tend to have more large enterprises, while smaller businesses focus more on labour intensive industries, such as food and beverages and apparel and garment. The thresholds for manufacturing enterprises (i.e. micro, small, medium and large) differ from those in neighbouring countries (Annex Table A.2.2). According to the Ministry of Industry, roughly five million people are currently employed in the manufacturing sector, which suggests that manufacturing constitutes a relatively large sector for employment (approximately 16% of the entire workforce, or 30 million people), although there is not yet any sort of target for industrial employment. The Ministry has drafted a new SME law in collaboration with the Union of Myanmar Federation for Chambers of Commerce and Industry (UMFCCI) with technical assistance from the international aid community. This SME law aims to foster SMEs through enhancing access to markets and finance, as well as training and networking.

Private manufacturing firms are currently supervised by the Ministry of Industry under the Private Industrial Enterprise Law (1990). This law aims to provide a clear legal and regulatory framework to foster private manufacturers. It also facilitates private manufacturers' access to necessary industrial inputs such as land, utilities and finance as well as raw materials and technologies and to tax exemptions and reliefs. Under this framework, the Ministry of Industry has developed 18 industrial estates and is currently working on seven new estates, including those in the border regions, which are under direct supervision of the Industrial Zone Supervision Committees (Central Department of SME Development Centre, 2013). In addition, three large special economic zones (SEZs), namely Dawei SEZ, Kyaukphyu SEZ and Thilawa SEZ, are being developed in collaboration with bilateral donors and the business community. These aim to attract export-driven FDI mainly from heavy and high-tech manufacturers.

Table 2.4. **Improvements needed in the legal and regulatory framework for business**

Subcomponent	Content and function	Related law and regulation in Myanmar	Issues in the legal and regulatory framework of Myanmar
Business registration	Three core functions are: a) overseeing business incorporation and regulating enterprise names to ensure uniqueness; b) maintenance of a commercial registry; and c) registration with the tax authorities.	Myanmar Companies Law (1914); Companies Rules (1940); Companies Regulations (1957); Shops and Establishments Act (1951); Workshops Law (1951)	Weak and lack of incentives
Licensing	Business licensing with line ministries is a potential bottleneck in starting a business.	Some sector based laws (i.e. Hotels and Tourism Law (1993))	Needs centralisation and simplification (e.g. one-stop business service centre)
Labour regulation	A good set of labour regulations should include employment, industrial relations, social securities laws and regulations of labour markets to protect workers.	Employment and Training Act (1950); Employment Restriction Act (1959); Employment Statistics Act (1948); Factories Act (1951); Labour Union Law (2011); Leave and Holidays Act (1951); Minimum Wages Act (1949); Oilfields Labour and Welfare Act (1951); Payment of Wages Act (1936); Social Security Act (1954); Shops and Establishments Act (1951); Trade Disputes Act (1929) and Workmen's Compensation Act (1923)	Adequate but requires the review of the consistency and effectiveness of detailed rules and regulations as well as their enforcement
Property registration	Clearly-defined property registration system reduces transaction costs and improves the security of property rights which benefits all businesses by improving their access to financing through the private banking sector.	Transfer of Immovable Property Restriction Law (1987)	Very weak (also prohibited for foreign enterprises)
Credit regulation	The government has to protect creditors and facilitate lending by establishing regulations for loss recovery.	Myanmar Companies Law (1914); Companies Rules (1940); Companies Regulations (1957)	Needs improvement
Corporate governance	A set of policies about how an enterprise is directed or administered and a corporate governance code to enhance accountability and transparency are essential tools for enhancing good corporate governance practices. This ensures ethical behaviour of businesses and, ultimately, prevents corruption.	Myanmar Companies Law (1914); Companies Rules (1940); Companies Regulations (1957); Shops and Establishments Act (1951); Workshops Act (1951)	Weak
Taxation	Complicated tax administration and inconsistent tax schedules give rise to business operations in the informal sector. Tax compliance costs are often regressive and put a disproportionate burden on small enterprises.	Income Tax Law (1974); Commercial Tax Law (1990); Myanmar Stamp Act (1899); Court Fees Act (1870); Myanmar Citizens Investment Law (1994); FDI Law (2012); Private Industrial Enterprise Law (1990); Promotion of Cottage Industries Law (1991); Law Amending the Promotion of Cottage Industries Law (2011); SEZ Law (2011); Dawei SEZ Law (2011)	Reconciliation required among different tax incentives by various investment and development laws (i.e. inconsistent tax incentives between Income Tax Law (1974) and SEZ Law as well as FDI Law (2012) and Myanmar Citizen Investment Law (1994)); establishment of Tax Bureau under the Ministry of Finance and Revenue
Trade facilitation	Trade facilitation is critical for Myanmar's participation in regional and global markets. Such integration could be achieved by simplifying documentary requirements and customs procedures, including inspection modalities.	Customs Tariff of Myanmar (2007); SEZ Law (2011); Dawei SEZ Law (2011); and other related laws	Work needed in customs and duty collection procedures

Table 2.4. **Improvements needed in the legal and regulatory framework for business** *(cont.)*

Subcomponent	Content and function	Related law and regulation in Myanmar	Issues in the legal and regulatory framework of Myanmar
Contract enforcement	Contract enforcement measures include simplified procedures of commercial dispute settlements and the establishments of a transparent case management system and a judicial information system.	Myanmar Companies Law (1914); Companies Rules (1940); Companies Regulations (1957); Shops and Establishments Act (1951); Workshops Law (1951)	Weak
Alternative dispute resolution	An effective mediation or arbitration system makes it easier to settle commercial disputes, saving time and money. While it should not be taken as a substitute to the formal judicial system, introducing mediation is one way of making the system more efficient for SMEs, which typically lack resources and knowledge.	Trade Disputes Act (1929); Arbitration Act (1944); Myanmar Companies Law (1914) and Companies Rules (1940); Companies Regulations (1957); Shops and Establishments Act (1951); Workshops Law (1951); Export/ Import Rules and Regulations; Myanmar Citizens Investment Law (1994); FDI Law (2012); Private Industrial Enterprise Law (1990); Promotion of Cottage Industries Law (1991) and Law Amending the Promotion of Cottage Industries Law (2011); SEZ Law (2011); and Dawei SEZ Law (2011)	Non-existent in Myanmar.
Bankruptcy law or exit rules	The existence of clear and enforceable bankruptcy laws or exit rules plays an important role in ensuring fair and efficient dissolution of enterprises with full transparency. This reduces the risk for entrepreneurial activities. The system must provide a pre-determined set of procedures specifying the legal definition of insolvency.	Myanmar Companies Law (1914) and Companies Rules (1940); Companies Regulations (1957); Shops and Establishments Act (1951); Workshops Law (1951)	Practically non-existent in Myanmar although the subsection of the Myanmar Companies Act (1914) partially covers the provision of bankruptcy.
Competition policy	Competition laws foster a culture of fair competition that ultimately benefits society through better quality, price and service. Competition laws should provide a regulatory framework in order to maintain and improve efficiency in markets as well as monitor pricing practices to restrain unreasonable price rises.	None	Non-existent; anti-monopoly law and a responsible a public office are required.
Anti-corruption	Proper law and regulatory framework can reduce abuses of discretionary power by enhancing transparency and minimizing uncertainty while maximizing business' compliance with rules.	None	Need legal and regulatory framework.

Source: Authors' compilation based on UNESCAP (2012a), *Policy Guidebook for SME Development in Asia and the Pacific*, United Nations Economic and Social Council for Asia and the Pacific, Bangkok, www.unescap.org/tid/publication/indpub2621.pdf and PWC (2012), *Myanmar Business Guide*, August 2012, PricewaterhouseCoopers LLP, Singapore, www.pwc.com/sg/en/assets/document/myanmar_business_guide.pdf.

Table 2.5. **Most manufacturing firms operate in the food and beverages sub-sector**

Sector	Large	Medium	Small	Total	Percentage
Food and beverages	2 369	4 110	20 976	27 455	63.5%
Construction materials	510	650	2 117	3 277	7.6%
Clothing and wearing apparel	341	380	1 001	1 722	4.0%
Metal and mineral	315	381	1 204	1 900	4.4%
Personal goods	375	410	330	1 115	2.6%
Industrial raw materials	169	240	282	691	1.6%
Printing and publishing	60	117	183	360	0.8%
Household products	144	79	97	320	0.7%
Transport vehicles	194	40	33	267	0.6%
Industrial tools and equipment	15	49	66	130	0.3%
Agricultural machinery	9	25	37	71	0.2%
Electrical equipment	43	15	12	70	0.2%
Others	264	791	4 799	5 854	13.5%
Total	4 808	7 287	31 137	43 232	100.0%
Percentage	11.1%	16.9%	72.0%	100.0%	

Source: Central Department of SMEs Development Centre (2013), a presentation made by the Ministry of Industry on 16 January 2013.

…commercialising agriculture…

A substantial increase in commercial agricultural production would require improvements in farms' productivity, in their connections to markets, in agricultural workers' access to quality land and land rights and more freedom in crop selection. Land yields and labour productivity in Myanmar's agriculture are low, keeping incomes low and poverty high in rural areas. Public and private investment in the sector has been insufficient, limiting know-how, input use, and capital investments in cultivation and post-harvest technologies. While the use of pesticides has increased significantly in recent years, fertiliser use has fallen dramatically, primarily due to a decline in its use in rice cultivation. The estimated need for inputs still exceeds their use, as high prices prevent farmers from buying inputs that will increase their yields (FAO and WFP, 2009).

While farmers are responsible for their own input use, the public sector has a supportive role to play in ensuring these inputs are available and used effectively. Most government spending on agriculture goes toward irrigation projects, limiting the resources available for seed, research, and extension programs. Such investments provide public goods not fully replaceable by the private sector, support improved yields, and could raise government revenues (Dapice et al., 2010).

Fixed capital investments have been improving gradually. Though the use of tractors and power tillers remains low in comparison with neighbouring countries, their use is expanding. Irrigation systems have grown by 26.5% over 1999-2000 to 2009-10 to cover 5 755 acres, or 11.4% of the total harvested area (CSO and Department of Agricultural Planning, 2011). While the government-constructed systems account for 28.5% of total coverage and are contributing to this expansion, many do not function reliably. There is similarly little use of effective post-harvest technologies, which prevent losses and preserve crop quality after harvesting. As investment is low and access to electricity often unavailable, rice drying is often not mechanised and milling tends to be done with unsuitable and outdated machinery (Dapice et al., 2010). Investments in food preservation and processing technologies should lead to improvements in output quantities and in quality, ensuring better prices.

The difficulty in accessing agricultural credit to finance working and fixed capital is one of the most important barriers preventing farmers from making these investments. Access to credit on acceptable terms is constrained for many in Myanmar, and financial services are particularly underdeveloped in rural areas. Poorly-defined land rights have also limited farmers' abilities to use their properties to secure financing.

Farmers are also discouraged from investing in productivity improvements by broader inefficiencies that limit their potential to expand and sell their output. Commercial agriculture requires reliable connections to markets. These links are underdeveloped in rural Myanmar as a result of insufficient infrastructure and inefficient distribution systems. Myanmar has fewer roads for its area, a smaller share of its roads paved, and fewer vehicles per person than the average among developing countries in the region (World Bank, 2013a). These barriers raise costs and can increase post-harvest losses, reducing the prices farmers can expect to receive for their output.

The equitable development and modernisation of agriculture in Myanmar is further constrained by inefficient and unsustainable patterns of land use. Specifically, regulations on land use, ambiguities in ownership, unequal access to land, and shifting cultivation prevent productive investments. Reforms in a number of these areas are helping to address these concerns, though challenges remain. All land in Myanmar is ultimately owned by the government, though farmers with lease rights are able to use, rent, and borrow against their holdings. They are, however, required to grow particular crops or apply for permission to change their crops, as the result of a longstanding government goal of ensuring self-sufficiency in rice production. This regulation makes it difficult for farmers to choose crops that are well-suited to their land and which would earn the greatest return.

State ownership of land and the underdeveloped rule of law have also left land rights unclear in many cases. This has reduced incentives for investing in improving farmland and has created difficulties for farmers interested in borrowing against the land they work. The Farmland Law, passed in 2012, attempts to address these challenges by creating official land use certificates clarifying famers' land rights. Disputes over ownership are still settled outside of the courts, through committees that may provide a less transparent and rules-based process. A related problem is that of landlessness among rural households. The Administration of Vacant, Fallow and Virgin Lands Law of 2012 established the legal framework for distributing unused lands among the landless, though it will remain to be seen how effective it is in practice. These reforms do not address unsustainable farming practices, such as shifting cultivation.

… and nurturing service industries

Service industries can potentially employ a large number of people and are in general less energy-intensive than other industries. However they presently make up a small part of the economy, contributing about 16% of GDP.

The tourism sector has been one of the key industries of Myanmar, attracting substantial amounts of foreign and domestic investments. Recently, the sector has experienced rapid growth. From 2009 to 2012, the number of tourists to Myanmar more than doubled, reaching 560 000 in 2012. During the same period, tourism earnings and spending per tourist increased by 57.5% and 20.4%, respectively, on a yearly average basis (Table 2.6). In 2012, tourism earnings reached over USD 500 million, while the mean expenditure per tourist per day was USD 135. Nearly two-thirds of tourists come from Asian countries, such as China, Thailand, Japan and the Republic of Korea. Owing to the privatisation efforts that commenced in the early 1990s, the tourism sector in Myanmar has been driven by private enterprises. In the past two decades, the number of state-owned hotels declined to nine in 2011 from its high of 39 in 1991, while private hotels, which did not exist (at least formally) in 1991, numbered 705 as of 2011 (CSO, 2013). Although the hotel business has attracted a large amount of foreign direct investment, mainly from the neighbouring Asian countries (Table 2.7), Myanmar enterprises continue to dominate tour operations and transport services, benefiting from the protection of favourable foreign investment laws (1988 and 2012).

Table 2.6. **Tourism is expanding rapidly**

	2009	2010	2011	2012	Average yearly growth rate 2009-12
Number of tourists	243 278	310 688	391 176	593 381	35%
Earnings (USD)	196 million	254 million	319 million	534 million	41%
Average expenditure per tourist per day (USD)	USD 95	USD 102	USD 120	USD 135	13%
Average length of stay (days)	8.5	8	8	7	

Source: Ministry of Hotels and Tourism (2012), *Myanmar Tourism Statistics 2012*, http://myanmartourism.org/tourismstatistics.htm.

Under the present reform process and relaxed international sanctions, it would seem that the growth in the tourism industry is poised to continue. In particular, more tourists from Western countries are expected. This bodes well for attracting and encouraging more foreign and domestic investments. The upgrading and expansion of tourism infrastructure and services, such as accommodation and transportation, as well as the on-going reform of visa applications, will enhance the attractiveness of Myanmar as a tourist destination.

Table 2.7. **Most investors in hotels are from the region**
Stock of investment in hotels and commerical complexes, 2012

Country	Investment (USD million)
Singapore	598
Viet Nam	300
Thailand	236
Japan	183

Source: Ministry of Hotels and Tourism (2012), *Myanmar Tourism Statistics 2012*, http://myanmartourism.org/tourismstatistics.htm.

Transportation is another example of a service industry with bright prospects. Road transport handled more than two-thirds of domestic cargo, while water transport dominated international cargo. Road transport tends to be used for short distances, whereas rail and water transport are used for long distances (Table 2.8). The road transportation industry in Myanmar can be characterised as lacking economies of scale, and suffers from low technology and a lack of support from the government. In 2010, there were 546 trucking companies and 734 forwarders in Myanmar, all of which were Myanmar enterprises licensed by the Ministry of Rail Transport (JIFFA, 2012). Almost all of the transport companies are categorised as small enterprises by the government. They focus on specialised route services, and none provides services nationwide (UNESCAP, 2012b). Many of these small operators are organised into so-called “gates” (GMS-BF, 2012). These gates exist in each major city and consolidate cargo for particular routes. They are characterised by fluctuating demands, high competition among small players, low freight rates and operating margins and inadequate investment.

Table 2.8. **Road transport is the major transport mode**
Cargo in thousands of tons, 2010

	Domestic	Share	International	Share
Road	20 560	72%	1 076	5%
Rail	3 322	12%	n.a.	n.a.
Air	1	0%	16	0%
Water	4 786	17%	22 220	95%
Total	28 669		23 312	

Source: JIFFA (2012), *ASEAN Logistics Survey Report, Volume 5: Myanmar*, March 2012, Japan International Freight Forwarders Association Inc., Tokyo, www.jiffa.or.jp/en/notice/entry-2141.html.

Transport companies normally use second-hand 22- or 12-wheel trucks, mainly imported from Japan. There are some new trucks from China that have gained popularity, particularly after the relaxation of import-licensing in 2011. There is also a large secondary fleet of 10- and 6-wheel trucks running on local distribution, low-volume routes and restricted-access roads (GMS-BF, 2012). These vehicles are often old and are no longer competitive on main routes.

In terms of costs, the largest expense associated with transportation remains diesel fuel. On average, diesel fuel in Myanmar is about 80% of total expenses. This is driven by the high energy demands of an aging fleet, a lack of consideration for the depreciation of trucks and bad road conditions. Apart from diesel costs, tire replacement and drivers fees contribute to the price of transportation significantly. Unofficial charges at checkpoints along the road constitute an additional (and illicit) cost of transporting material and goods.

Challenges facing land transport in Myanmar include: *i)* fluctuating demands and limited capacities; *ii)* a paucity of modern facilities and equipment; and *iii)* unreliable services. The lack of tracking services in particular has been viewed as a challenge by foreign investors.

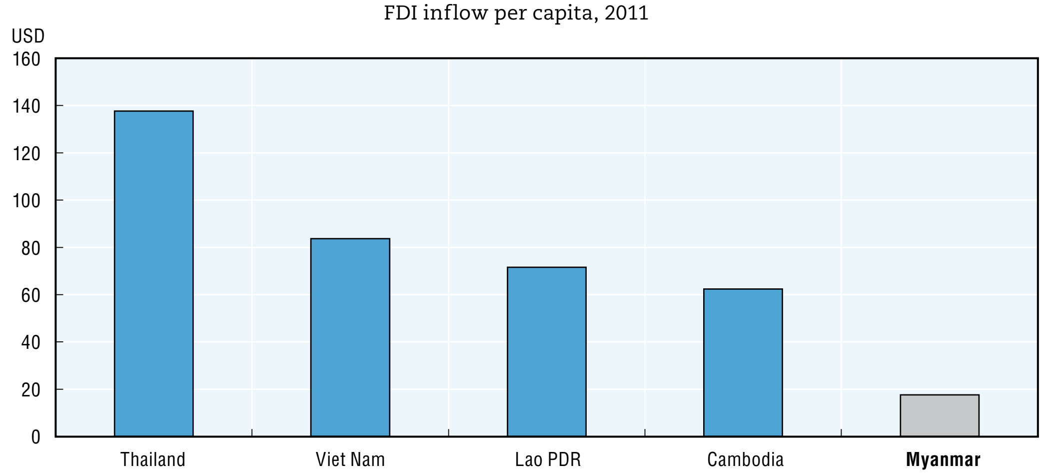
Facilitating investment requires legal and regulatory reforms to improve the business environment

In Myanmar, investments in businesses come mainly from three sources: foreign investors, domestic private investors, and the government through state-owned enterprises (including military enterprises). Several business laws regulate such investment activities, namely the Myanmar Companies Act (1914), the State-owned Economic Enterprise Law (1989), the two Foreign Investment Laws (1988 and 2012), the Myanmar Citizens Investment Law (1994), the Special Economic Zone Law (2011), and the Dawei Special Economic Zone Law (2011).

Myanmar has attracted foreign investors mainly from neighbouring countries primarily interested in Myanmar's natural resources and power sectors. However, FDI inflows into Myanmar are far less than those of its neighbouring countries in terms of per capita FDI value (Figure 2.13). The majority of FDI inflows into Myanmar, close to 80%, go to oil and gas (extraction) and the power (electrical generation) industries (Table 2.9). Twelve sectors benefit from FDI. The power sector leads, representing 46% of the total value. It is followed by the oil and gas industry, comprising 33.9% of the total investment; the mining and the manufacturing sectors stand in third and fourth place overall with 6.8% and 5% of total investment, respectively. Hotels and tourism and real estate also receive substantial shares of investment, with 3.3% and 2.5% respectively. The FDI inflows into other industries are relatively small in terms of their contribution to the total investment.

Figure 2.13. **Low FDI inflows in Myanmar, compared with its peers**

FDI inflow per capita, 2011



Source: UNCTAD (2013), *UNCTADSTAT* (database), United Nations Conference on Trade and Development, http://unctadstat.unctad.org/ and UNESCAP (2013), *UNESCAP Data Centre* (database), United Nations Economic and Social Council for Asia and the Pacific, www.unescap.org/stat/data/.

StatLink *http://dx.doi.org/10.1787/888932857577*

Table 2.9. **Most FDI flows into the primary sector**
FDI inflows to Myanmar by sector: Approved basis (as of 31 January 2013)

Sector	Approved amount (USD million)	Percentage
Power	19 238	46.0
Oil and gas	14 182	33.9
Mining	2 830	6.8
Manufacturing	2 089	5.0
Hotel and tourism	1 365	3.3
Real estate	1 056	2.5
Livestock and fisheries	330	0.8
Transport and communication	314	0.8
Industrial estate	193	0.5
Agriculture	183	0.4
Construction	38	0.1
Other services	25	0.1
Total	41 842	100.0

Source: DICA (2013b), Directorate of Investment and Company Administration, Ministry of National Planning and Economic Development, Nay Pyi Taw, Myanmar, www.dica.gov.mm (accessed March 2013).

The majority of FDI inflows to Myanmar come from neighbouring Asian countries and some EU countries. The national origins of FDI inflows to Myanmar reflect its trading relationships. China, inclusive of Hong Kong, China, significantly leads all other countries with USD 20.6 billion (Table 2.10). This represents nearly half of total foreign investments in Myanmar throughout the period. Thailand investors rank second with investments valued at approximately USD 9.6 billion. It is followed by Korea with USD 3 billion. The investment of China and Thailand mainly went to the power, natural gas and mining sectors. Among the top investor countries, four countries are from ASEAN, two are from EU, and three are from other parts of Asia.

Table 2.10. **Most FDI comes from neighbouring countries**
FDI inflows to Myanmar by country (as of 31 January 2013)

Country	Approved amount (USD million)	Percentage
China, including Hong Kong, China	20 559	49.1
Thailand	9 568	22.9
Korea	2 979	7.1
United Kingdom	2 799	6.7
Singapore	2 167	5.2
Malaysia	1 031	2.5
France	469	1.1
Viet Nam	362	0.9
India	274	0.7
Others	1 634	3.8

Source: DICA (2013b), Directorate of Investment and Company Administration, Ministry of National Planning and Economic Development, Nay Pyi Taw, Myanmar, www.dica.gov.mm (accessed March 2013).

In contrast to FDI sector destinations, domestic investments have been made mainly into construction, manufacturing and services (Table 2.11). State-owned enterprises make investments by themselves and through their joint ventures or local/foreign partnerships. Although detailed statistics are not fully available regarding the patterns of SOE investment, capital investment by sector is available from 2004 to 2011 (Table 2.12). While a number of SOEs are losing money (Table 2.3 and Annex Table A.2.3) – thus limiting their ability to reinvest from retained earnings – state-owned enterprises have made significant investments compared with those of domestic private actors. Yet, the low quality and reputation of their products and services (partially owing to a dearth of modern technology, modern production facilities and management systems) strongly suggest that the investments of state-owned enterprises are not adequate. This appraisal may even include areas where SOEs seem to be generating a profit, for example in mining, energy and power, finance and communications.

Table 2.11. **Most domestic investment is in construction and manufacturing**

Domestic investment by sector (as of 31 January 2013)

Sector	Approved amount (Kyat millions)	Percentage
Construction	646 033	27.0
Manufacturing	575 860	24.1
Transport	292 127	12.2
Industrial estate	249 213	10.4
Power	246 233	10.3
Real estate	67 582	2.8
Hotel and tourism	54 237	2.3
Livestock and fisheries	21 603	0.9
Mining	11 008	0.5
Agriculture	548	0.0
Others	229 274	9.6
Total	2 393 717	100.0

Source: DICA (2013b), Directorate of Investment and Company Administration, Ministry of National Planning and Economic Development, Nay Pyi Taw, Myanmar, www.dica.gov.mm (accessed March 2013).

Table 2.12. **SOE investment is focused on a narrow range of sectors**

Investment by state-owned enterprises 2004-11

Sector	2004-11	Percentage
Manufacturing	578 661	31.5
Transport	514 552	28.0
Energy	480 474	26.2
Information and communications	187 456	10.2
Agriculture, forest, livestock and fisheries	33 622	1.8
Banking, finance and insurance	19 115	1.0
Construction	12 233	0.7
Mining	5 131	0.3
Social services	3 904	0.2
Trade	1 093	0.1
Total	1 836 241	100.0

Source: CSO (Central Statistical Organization) (2013), *Myanmar Data: CD-ROM 2011-12*, Central Statistical Organization, Ministry of National Planning and Economic Development, Nay Pyi Taw, Myanmar.

Myanmar has been encouraging business investments from both domestic and foreign sources since the earlier reform process at the end of the 1980s. A number of reform measures have been implemented, including six investment-related business laws: the State-owned Economic Enterprise Law (1989), the Foreign Investment Laws (1988; 2012), the Myanmar Citizens Investment Law (1994), as well as the Special Economic Zone Law (2011) and the Dawei Special Economic Zone Law (2011). The government, in partnership with the OECD and ASEAN, is also undertaking an Investment Policy Review in the framework of the ASEAN-OECD Investment Programme, with the aim of identifying priorities for further reform and ultimately making the country a more attractive destination for investors (OECD, 2013b).

It is anticipated that changes in investment regulation will also be enacted in the form of the Myanmar Companies Act (1914). These laws generally aim to facilitate the development of the private sector by encouraging business investments, providing incentives to businesses (e.g. tax breaks and land leasing) and by regulating business activities (e.g. ownership structure and line of business) within Myanmar (Annex Table A.2.4).

The Myanmar Companies Law (1914) serves as the central framework for companies of all types, with the exception of state-owned enterprises. Enterprises, including foreign-owned entities, can make investments through the mechanisms provided in this law to any business in any industry or sector unless otherwise prohibited, for example by specific provisions in industries such as utilities, mining, forestry, public transportation and defence-related activities. An advantage to investing under this law is that entrepreneurs can establish their enterprises with a smaller amount of capital than under other laws, although they cannot access the incentive schemes provided by other legal frameworks.

The State-owned Economic Enterprise Law (1989) delineates the boundary of private and public business activities. It lists prohibitions for private investment in certain sectors, while SOEs can operate in these areas without constraints. As a result, SOEs' activities have extended across a range of economic activities in Myanmar. The government has implemented corporatisation and privatisation strategies since the middle of the 1990s and the present government has tried to accelerate this process.

Myanmar's Foreign Investment Law (1988) attracted FDI from neighbouring countries, particularly in the primary sector (energy and mining), but has not been as successful as envisioned. The government has provided incentives (e.g. tax breaks and land leasing rights) and a simple list of desirable areas for foreign investment, while encouraging foreign investors to establish joint ventures or partnerships with state-owned enterprises where more capital, advanced technology and managerial skills are required. The new Foreign Investment Law (2012) extends the 1988 FDI Law with additional concessions to foreign investors (e.g. more generous tax breaks and land leasing rights). The new law defines investment broadly, including foreign portfolio investment, while no definition existed in the old law. In the absence of a stable investment climate in Myanmar, the new FDI law aims to send a positive message to the world that the country is open for business.

Compared to other foreign investment laws in ASEAN, Myanmar's old and new laws are neither overly generous nor excessively restrictive (UNESCAP, 2012c). One of the notable differences between the old and new FDI laws is that the new FDI law provides a long and detailed negative list to restrict and regulate the activities of foreign investors in a number of fields. These restrictions apply to 237 business activities in total, although the new FDI law has paved the way for long-anticipated business opportunities for foreigners in areas such as trading, wholesaling, retailing, communications and real estate. It also allows many manufacturing activities only through joint ventures, suggesting the urgent need for capacity building in local manufacturing so that firms can be seen as reliable partners to foreign investors.

The objectives of the Myanmar Citizens Investment Law (1994) are twofold. First, it aims to provide a level playing field for both domestic investors and foreign investors. The old Foreign Investment Law (1988) provided a package of incentives which domestic investors were not able to access. However, following the introduction of better investment incentives in the new Foreign Investment Law (2012) for foreign investors, revisions to the Myanmar Citizens Investment Law (1994) is strongly recommended. Otherwise, there is a risk that a gap will open up again as regards the differential treatment of foreign and domestic capital. Second, the Myanmar Citizens Investment Law encourages domestic business to establish joint ventures or partnerships with state-owned enterprises. It is hoped that SOEs will use such partnerships to acquire market-driven business managerial skills in addition to benefitting from the opportunities for expansion from the infusion of foreign capital. A simple list of desirable areas for domestic investment (i.e. agriculture; livestock and fisheries; forestry; mining; manufacturing; and services) is proposed in line with that of the old Foreign Investment Law (1988). In this regard, the Ministry of National Planning and Economic Development has drafted a new Myanmar Citizens Investment Law in order to be in harmony with the new Foreign Investment Law (2012), and it is expected to be enacted in 2013.

Finally, the Special Economic Zone Law (2012) and the Dawei Special Economic Zone Law (2011) aim to provide the necessary policy support to the three large, developing special economic zones (SEZs) in Myanmar. These three zones are Dawei SEZ, Kyaukpyu SEZ and Thilawa SEZ. The SEZ laws are applicable regardless of the nationalities of companies and investors, and they apply to all industries. The laws include lists for desired business activities within SEZs, such as: port management; high tech industries; electricity generation and distribution; logistics and transport services; infrastructure construction; oil and natural gas distribution and pipeline construction; agribusiness; livestock and fisheries; forest products; limited trading; hotels and tourism; education and healthcare; and real estate. The SEZ laws also encourage investors to establish joint ventures or partnerships with SOEs. The SEZ laws provide more generous incentives to investors than the existing FDI and domestic investment laws (e.g. land leasing up to 75 years for large enterprises).

Despite improvements in the overall legal environment, a careful review reveals some remaining issues in business law. First, individual laws have their own tax incentive structures, which require not only co-ordination among them but also consultation with (and perhaps approval from) the Tax (or Revenue) Bureau, as such tax incentives will directly impact national revenue. For example, the present FDI law and SEZ laws allow investors to enjoy tax holidays up to five years, while the Income Tax Law (1974) prohibits such tax incentives that extend beyond three years. This issue may require the revision of incentive structures in investment-related business laws, ideally to develop only a general business law – perhaps similar to that of Singapore – that covers investment issues.

Second, individual investment-related business laws carry either a positive list or a negative list for desired or prohibited business activities, which may generate unnecessary confusion for the business community. It may also constitute a bureaucratic burden for public administration. In most countries, there are many specific provisions restricting certain business activities based on industry and sector, in particular as regards mining, natural resources and public utilities.[29] Other sectors may be banned altogether from FDI (negative list) while various services industries, including banking, telecommunications and retailing also have their own (often rather restrictive) legal requirements for FDI. However, a number of different positive and negative lists for business in Myanmar may increase transaction costs for both the business and public sectors.

Third, investment-related laws do not carry special provisions for smaller players such as SMEs. Even the two SEZ laws would seem not to provide the same incentives to smaller businesses compared with their larger counterparts (e.g. tax breaks and land leasing rights). SMEs are a vital part of the business community in any country, typically accounting for more than 99% of business entities. They, particularly small and micro-sized enterprises, require special consideration from the government in order to reduce their transaction costs for making additional investment (UNESCAP, 2012a). The present investment laws in Myanmar lack such a strategy for business development.

Fourth, the SEZ laws (2011; 2012) are only two examples of investment-related business laws that apply different requirements and offer different incentives based on locations (zones) for private investment within the country. Taking into consideration the different characteristics and conditions of locations, the SEZ strategies may be expanded to other border or rural areas to develop the business sector there. This strategy may be particularly useful for the development of export processing zones along the border for labour-intensive export business.

Finally, Myanmar is a rare example of dual investment laws based on business ownership (i.e. domestic or foreign). The majority of neighbouring countries, such as Cambodia, Indonesia and Singapore, have no discrimination between foreign and local investors in their investment legislation, while others have maintained a less restrictive discrimination (e.g. Thailand and Viet Nam).[30]

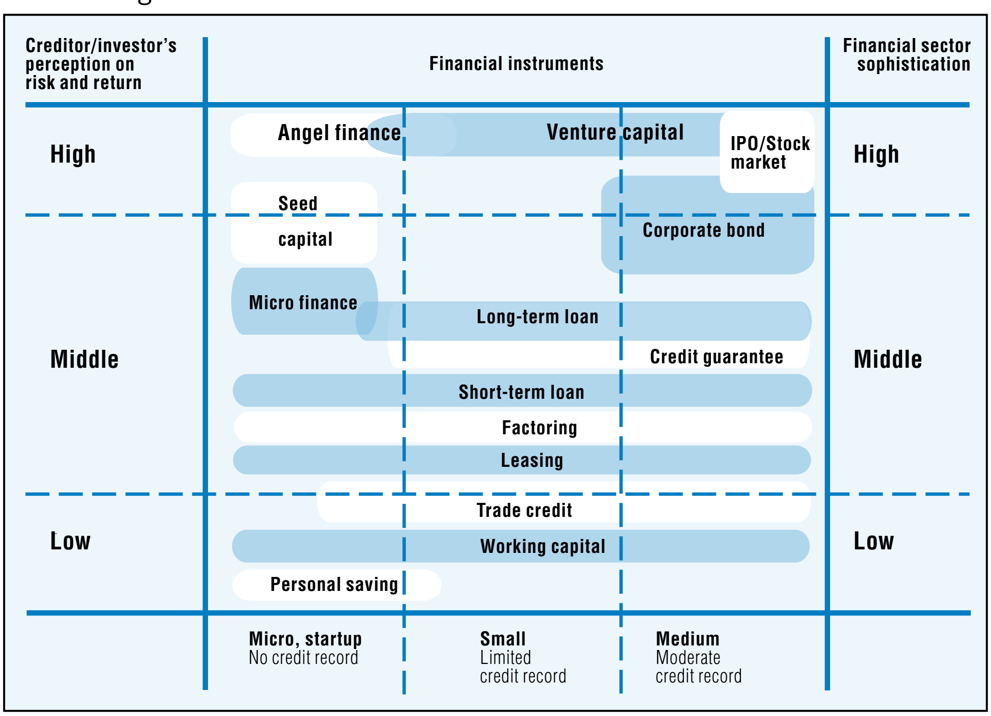
External finance sources for business have been limited

Myanmar's business finance is simple and characterised by the use of enterprises' own cash reserves; these come mainly from personal savings, personal borrowing, retained earnings or trade credit with suppliers (Kudo, 2002 and 2005; Kyaw, 2008). Short-term bank loans are available, but limited in business use. The reasons for the informal nature of financing in business include small and underdeveloped banking and finance institutions, high and inflexible interest rates, expensive service charges (in the past, approaching 20% of the financing sought), tight collateral requirements in real estate transactions, limitations on loan amounts based on appraised value of collateral property (up to 40%) and the unavailability of long-term loans (Kyaw, 2008). Transaction costs are high due to strict regulations and cumbersome loan procedures, partially resulting from Myanmar's banking crisis in 2003, as well as a paucity of information available to creditors (no credit bureau yet). These have become significant barriers for the development of business financing in Myanmar.

As a result, access to finance has been one of the most critical issues faced by private enterprises in Myanmar for many years, second perhaps only to electricity shortages (Lynn, 2004; ADB, 2012b). Past business surveys in Myanmar suggest that less than half of sampled private enterprises have access to formal short-term credit. Private enterprises are typically willing to expand their businesses only to levels that their own, personal finances can sustain (Kyaw, 2008). This constitutes a significant constraint on the ability of firms to grow to sizes where they are efficient and thus lowers overall economic productivity and ultimately economic growth.

An enterprise should have access to a number of financial instruments based on its specific development stage and size (Figure 2.14). This implies that the sophistication and level of development of the banking and financial sector are important factors in sustaining growth. Myanmar presently offers one very basic financing instrument to private enterprises – short-term loan (i.e. less than one year) at a limited volume – due to its underdeveloped banking and financial sector and strict regulations. Neither a public credit guarantee scheme nor a credit bureau/credit information provider has been established yet in Myanmar, although some ministries have discussed the creation of such schemes with international technical assistance. Furthermore, there is no institutional financial support to new entrepreneurs for their business start-ups in Myanmar, except for a small number of microfinance schemes. Needless to say, enterprises in the informal sector – the majority of the business sector in Myanmar – are not eligible to access institutional lending either. This is a critical issue in terms of enterprise development. It greatly limits the growth of the business sector in Myanmar.

Figure 2.14. **Various financial instruments for business**



Source: UNESCAP (2012a), *Policy Guidebook for SME Development in Asia and the Pacific*, United Nations Economic and Social Council for Asia and the Pacific, Bangkok, www.unescap.org/tid/publication/indpub2621.pdf.

The government has encouraged formal microfinance institutions (MFIs) to provide microfinance for small businesses in order to replace informal lenders, which are widespread in Myanmar[31] despite the high interest rates they charge (2-3% per month) (LIFT, 2012). Those MFIs include: *i)* state-owned development banks, such as the Myanmar Economic Bank and the Myanmar Agriculture and Rural Development Bank; *ii)* financial co-operatives under the Ministry of Cooperatives; *iii)* non-governmental organisations

(NGOs), such as Partner Agencies Collaborating Together (PACT), functioning as a UNDP microfinance initiative; *iv)* specialised agriculture development enterprises under the Ministry of Agriculture and Irrigation; and *v)* village revolving funds or community based organisations. Furthermore, the Microfinance Law (2011) and the newly established Microfinance Supervisory Enterprise also allow local and foreign investors to establish fully privately-owned MFIs, whose number is expected to grow rapidly (Duflos et al., 2013).

A range of new policies to develop the business sector are being considered

The government of Myanmar has identified a number of new policies for developing the business sector. The current three-year national development plan entitled "Framework for Economic and Social Reforms" (Ministry of National Planning and Economic Development, 2012) identified several key policies to foster the business sector in Myanmar.

The present government aims to reduce transaction costs for business by improving the legal and regulatory framework for business. The government has been assessing the business climate in Myanmar and is expected to develop a comprehensive institutional and regulatory reform plan for improving the overall business environment. Specific issues which will be assessed are in line with the World Bank (2013b).[32] The Ministry of National Planning and Economic Development has been setting up one-stop centres for business start-ups in Mandalay, Nay Pyi Taw and Yangon. The Ministry of Industry is also planning to open one-stop SME service centres throughout the nation in collaboration with the regional or state chapters of the UMFCCI.

Domestic industrial development has been slow in Myanmar largely due to the impact of international sanctions and the limited availability of institutional loans. Adding to this is the lack of basic infrastructure, such as reliable power. The government aims to increase the industrial share of GDP from 26% to 32% within the next three years, together with an increase in the service sector, reducing the currently high share of agriculture. To this end, the government has opted for trade and investment liberalisation, including the elimination of the export-first trade policy and the revision of the FDI law, as well as the development of the three special economic zones to build industrial bases in Myanmar and develop more diversified exports. A new industry law is also currently being drafted. Upgrading technological institutes and technical schools across the country is planned.

Complementing the previous industrialisation policy, the government has paid special attention to protect and foster domestic SMEs as an engine of industrialisation, income generation and job creation. Ministries involved in SME development and promotion include the Ministries of Industry, Co-operatives, Commerce, Agriculture and Irrigation, Science and Technology and others. The government has been particularly concerned about the impact of the increasing competition from foreign investors and the impacts of the ASEAN Economic Community (AEC) 2015 on SMEs. The Central Department of SME Development was created in April 2012 under the Ministry of Industry. President U Thein Sein has chaired the Small and Medium Enterprises Development Central Committee, and a new SME law is being drafted by the Committee's working group, which is comprised of both government officials and business representatives. The government also aims to facilitate SME cluster formation by linking the existing industrial zones and estates across the country with research and training institutions. The former Myanmar Investment and Commercial Bank is being transformed into the

Small and Medium Industrial Development Bank (SMIDB) to improve access to finance for SMEs and to support business and technology incubations, although at present the bank has limited outreach (i.e. eleven branches throughout Myanmar). The SMIDB plans to offer lower interest three-year loans at 8.5%, as opposed to the standard 13%, which is much lower than typical interest rates for SMEs in developing countries (IFC, 2010), although the feasibility of this plan has been questioned.[33]

Tourism is also identified as a key business sector which will benefit quickly from the present reform process and new development policies. The current visa requirements and procedures will be relaxed and simplified. More hotels and accommodation facilities will be supplied throughout the country, encouraging both domestic and foreign investments. The government plans to develop linkages between tourism and other industrial sectors, such as agriculture and services, to maximise benefits. For this purpose, the government also plans to assist in overall capacity building of the tourism sector, improvement of tourism service management, development of new tourism destinations and marketing and promotion.

To increase access of private enterprises to financial institution financing, the government is currently preparing a financial sector master plan as the basis for major reforms of the banking and financial sector in order to foster healthy competition among private commercial banks and to boost commercial credit as well as various financial instruments available to business. The government has considered allowing commercial banks to extend long-term loans (more than one year) and to use a wider range of collateral instruments, such as moveable assets. It is also considering the establishment of public credit guarantee schemes and a credit bureau (perhaps as a public entity). Expansion of microfinance schemes for entrepreneurs, including women and youth, is another policy being examined to improve access to needed capital and to reduce reliance on informal money lenders. The government also plans to expand the schemes for trade finance, particularly for exports of manufactured goods.

Finally, the government has accelerated the reform process of state-owned enterprises, many of whom have recorded substantial losses in the past several years (CSO, 2013). Since the middle of the 1990s, a number of SOEs have been corporatised and/or privatised to foster private investment and reduce government subsidies and soft loans from state development banks. However, this process has not been transparent due to lack of clear formal procedures and monitoring and evaluation mechanisms, as it has been typically implemented by individual line ministries on an ad hoc basis. It is expected that the government will implement further reforms in a gradual but transparent manner, perhaps including the establishment of a public auction and open tender system for public asset sales as well as a valuation, appraisal and securitisation system. While proceeding with such reforms in the industrial and services sectors, the government has taken a more cautious approach in privatising SOEs in public utilities, natural resources and infrastructure industries, such as energy, mines and telecommunications. The government also aims to enhance the institutional capacities of SOEs by strengthening financial discipline as well as incentives for profit-making, and perhaps providing management training.

Accumulating human capital for the future

Sustainable economic development in Myanmar is conditional on the availability and quality of human capital. A prerequisite for providing adequate skills needed by the labour market is access to high quality basic education (defined by primary and nonvocational secondary education). While most of Myanmar's adult population has learnt the most basic skills, including reading, writing and arithmetic, and access to formal education has improved over the last twenty years, school dropouts at the primary level and low enrolment rates at the secondary level imply continued challenges in terms of access to education. Quality issues related to education have recently been addressed through upgraded teacher training programmes and revised curricula, but better tools to measure educational attainments of students and teacher quality need to be developed.

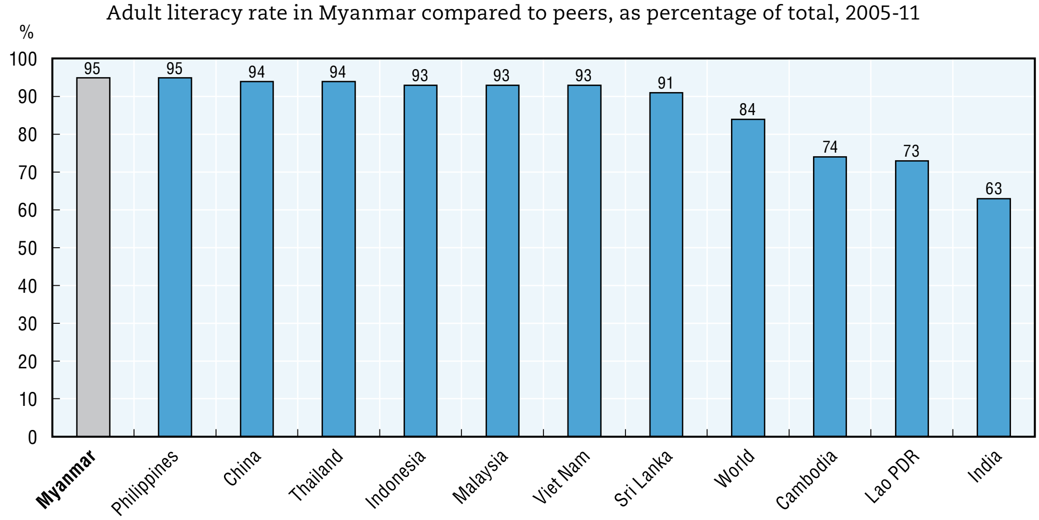
Many low- and middle-income countries have difficulty moving up the value chain due to a lack of adequate and specific professional skills (OECD, 2013c). Taking fast-growing emerging and already industrialised economies as benchmarks indicates that Myanmar has not yet fully accumulated the set of skills which may be demanded in the years ahead. Stronger focus on vocational training and a higher proportion of tertiary graduates in education and health is essential. Overall, spending on education at all levels has to be boosted to address the challenges ahead.

Myanmar is at the doorstep of broad-based access to basic education

Most adults in Myanmar are capable of basic reading, writing and arithmetic. According to official statistics, the literacy rate was 95% in 2011, up from 71% in 1973 and 91% in 2000. If these figures are accurate, literacy in Myanmar is at par with that in middle-income countries such as China, the Philippines and Thailand (Figure 2.15). Other least-developed countries (LDCs) in the region as well as India report significantly lower literacy rates.

Figure 2.15. **Myanmar has high rates of adult literacy**

Adult literacy rate in Myanmar compared to peers, as percentage of total, 2005-11



Note: Figure for Myanmar corresponds to 2011. Figures for all other countries correspond to most recent data available between 2005 and 2010. UNESCO defines literacy as the ability to read and write with understanding a simple statement related to one's daily life. It involves a continuum of reading and writing skills, and often includes basic arithmetic skills (numeracy). The definition of the Ministry of Education is largely in line with that of UNESCO.

Source: Ministry of Education (2012), *Education Development in Myanmar*, The Republic of the Union of Myanmar and UNESCO (2013), *UNESCO Institute for Statistics Data Centre* (database), United Nations Educational, Scientific and Cultural Organization, http://stats.uis.unesco.org/.

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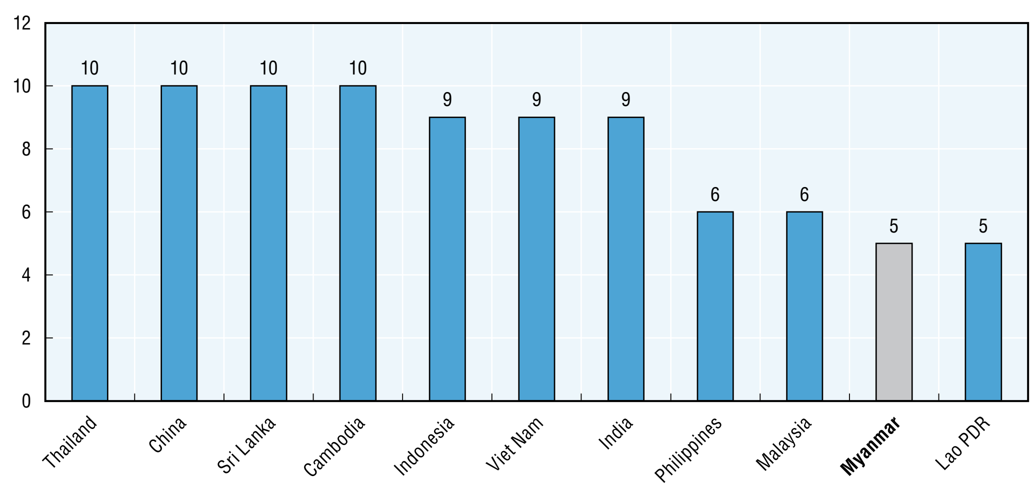
High literacy attainment in Myanmar is the result of a nation-wide adult literacy programme introduced in 1973, several summer literacy programmes underway since 1996 as well as first initiatives within the long-term education development plan (2001-30). These programmes mainly target full access to primary and improved access to post-primary education. Within the Non-Formal Primary Education Programme, for example, adolescents get the opportunity to learn in out-of-school hours (evenings) in order to accommodate farmers' labour constraints during harvest periods.[34] Another example is the Income Generating Programme, which provides financial incentives for parents to educate themselves and bring their children to school.

Furthermore, monastic and private schools play an increasingly important role in the provision of primary education. About 3% of all primary school students are taught in monastic schools. Compared to public schools, monastic schools seem to be more accessible for poor pupils as they don't charge fees and provide free meals and school materials. Also, the re-legalisation of private schools since the 1990s helped to accelerate access to basic education, particularly in recent years. Private institutes provide full-time and supplementary programmes. Many children from wealthier families go to supplementary private schools, for example, to improve their English skills or to prepare for admission tests to education abroad (Lall, 2008). With the approval of the Private School Registration Act 2011, the government's willingness to allow basic education through non-state institutions is reaffirmed.

Figure 2.16. **Myanmar has fewer years of compulsory education than its peers**

Years of compulsory education, 2010



Source: UNESCO (2013), *UNESCO Institute for Statistics Data Centre* (database), United Nations Educational, Scientific and Cultural Organization, http://stats.uis.unesco.org/.

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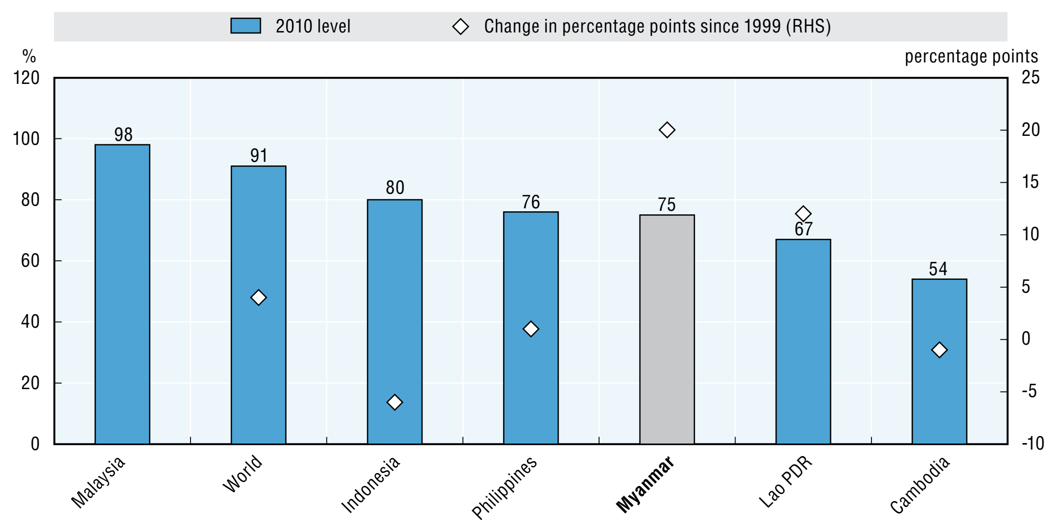
Broad access to education does not go far beyond the most fundamental literacy skills given the low number of legally guaranteed and compulsory school years. Only primary school (age 5-9) is compulsory. In this respect, Myanmar lags far behind most countries in the region. For example in Thailand, China and also in LDCs like Sri Lanka and Cambodia, compulsory education includes secondary education and lasts ten years, twice as long as in Myanmar (Figure 2.16). The government's engagement to fulfil its mandate to provide free and compulsory primary education, for example, by building new primary schools in border regions as well as NGO engagements to bridge the gap of shortages with regard to school materials, have made it possible to increase the net intake rate of formal primary education at the age of five to 98.5% in 2011, up from 67% in 1988. However, despite compulsory primary education, only about 75% of the pupils reached the last grade of primary education in 2010 (Figure 2.17) and only 69% finished the last grade.

Overall, formal and informal initiatives to increase access to basic education have been successful. The survival rate to the last grade of primary education improved by 20 percentage points since 1999 (Figure 2.17, dots in diamond-shape). Both Cambodia and Lao PDR, which had – like Myanmar – a low survival rate of 55% in 1999, report considerably smaller improvements during the same period. Furthermore, improved access to primary education – not only for the primary school-age population but also for older children or adults who may not have had the chance to benefit from primary education at an earlier age – is reflected in the gross enrolment ratio (GER).[35] Myanmar has with 126% one of the highest GERs in the region, up by 25 percentage points since 1999 (Figure 2.18, Panel B). Myanmar's GER above 100% indicates that some of the enrolled pupils are actually older than the official primary-school age.

Figure 2.17. **Improving primary education attainment rates**

Survival rate to last grade of primary education in Myanmar compared to its peers, 2010



Source: UNESCO (2013), *UNESCO Institute for Statistics Data Centre* (database), United Nations Educational, Scientific and Cultural Organization, http://stats.uis.unesco.org/.

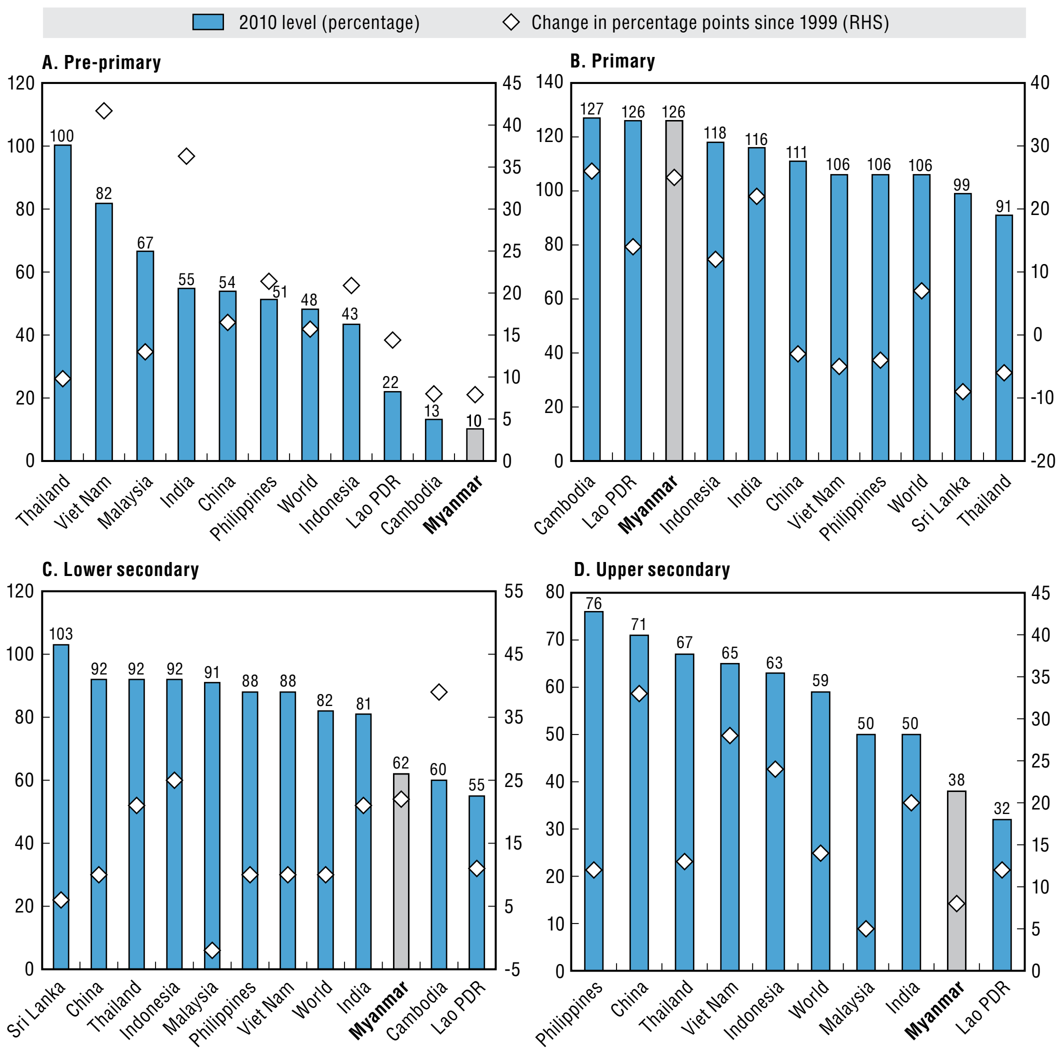
StatLink http://dx.doi.org/10.1787/888932857634

Nevertheless, the non-mandatory characteristic of pre-primary and secondary education is still reflected in relatively low access to these school levels. The GER in pre-primary education of 10% in 2010 was very low compared to the 54% in China, 55% in India and 100% in Thailand (Figure 2.18, Panel A). However, the government's commitment to the strengthening of pre-primary education has translated into very strong growth of pre-primary enrolments; the GER has increased over fourfold since 1999. In 2011, more than 2 500 schools provided pre-school education; ten years before this number was below 500.

Similarly, the GERs in Myanmar for lower and upper secondary education, at 62% and 32% in 2010, respectively, are clearly lower compared to middle-income countries in the region. To facilitate access to secondary education in villages where no secondary school existed, the government has allowed upgrading of primary schools to post-primary, affiliated or branch schools since 2001. The policy (together with those mentioned above) seems to be successful: the GER for lower secondary education has improved by more than 20 percentage points since 1990 (Figure 2.18, Panel C); while that for upper secondary education increased by 8 percentage points over the same period (Figure 2.18, Panel D).[36]

Figure 2.18. **Starting from low levels, access to non-compulsory education is improving**

Gross enrolment ratio at different levels of basic education in Myanmar compared to its peers, 2010



Note: The gross enrolment ratio is defined as the number of pupils enrolled in a given level of education, regardless of age, expressed as a percentage of the official school-age population corresponding to the same level of education. Compulsory education refers to five years of primary education only.

Source: UNESCO (2013), *UNESCO Institute for Statistics Data Centre* (database), United Nations Educational, Scientific and Cultural Organization, http://stats.uis.unesco.org/.

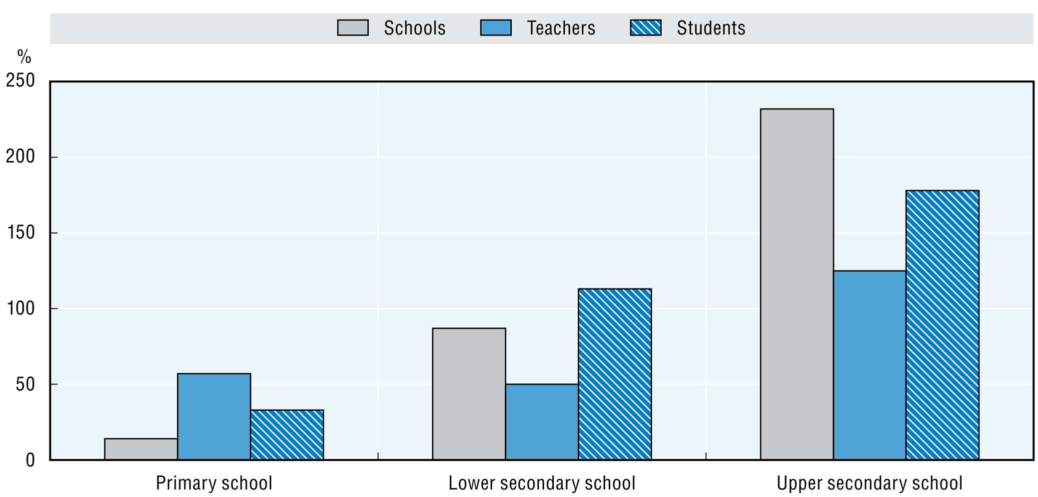
StatLink http://dx.doi.org/10.1787/888932857653

Policies are also focusing on boosting inputs to the educational system, notably teachers and finance

During the last two decades, the government in Myanmar has made strong efforts to hire more teachers and to build new schools to facilitate access to basic education at all levels (Figure 2.19).[37] The number of pupils per teacher seems to have improved at the primary level, but the strong increase in the number of secondary school students has outstripped the considerably slower increase of teachers hired.[38] At the lower secondary level, students have doubled between 1988 and 2012, but the number of teachers has risen only by 50% during the same period. Similarly, for upper secondary school, the number of students almost tripled, but the number of teachers only increased by a factor of 2.25. This trend is reaffirmed when looking at pupil to teacher ratios: at the primary level the ratio improved from 31:1 in 1999 to 28:1 in 2010; whereas at the secondary level the ratio has worsened over the same period, from 30:1 to 34:1. For both school levels, these ratios are clearly higher compared to those of most neighbouring countries. For example in China, the pupils per teacher ratios are 17:1 and 15:1 for primary and secondary school, respectively.

Figure 2.19. **The number of teachers needs to grow with the student population**

Growth of the number of schools, teachers and students at different levels of basic education, 1988-2012



Source: Ministry of Education (2012), *Education Development in Myanmar*, The Republic of the Union of Myanmar.

StatLink *http://dx.doi.org/10.1787/888932857672*

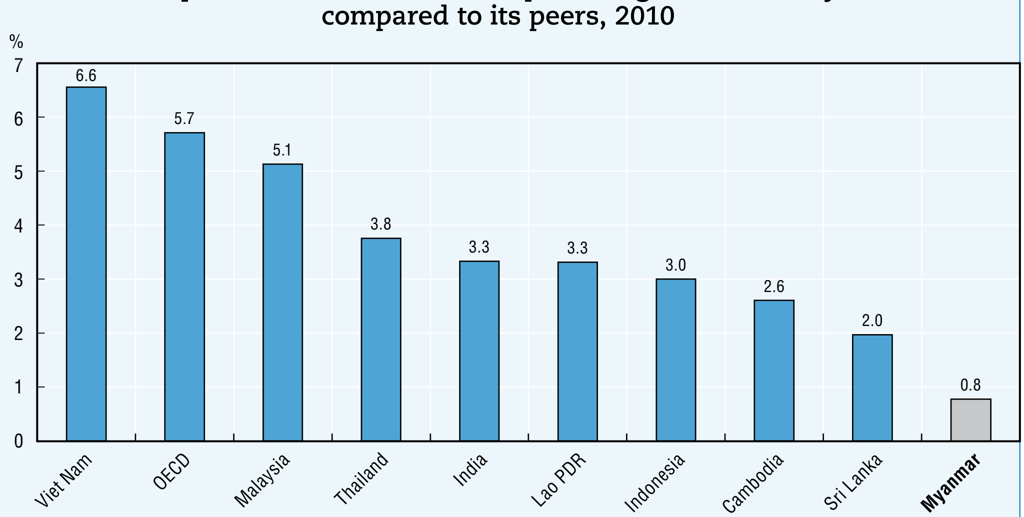
While existing initiatives have met with some success, the sustainable provision of basic education for all – which should be guaranteed by the central government and not be dependent on non-formal or private initiatives – can only be achieved through a well-thought-out increase in government spending on education (Box 2.10).[39] To assess in which areas increased education spending is needed, the constraints to education access need to be identified. On the one hand, access to basic education is conditional on logistics, including the availability of school facilities and teacher training institutions, transportation to schools and teaching materials. On the other hand, access is also dependent on the right incentives of key stakeholders involved in education. Among others, incentives to be trained and work as a teacher must be adequate to fill the demand for teachers. Also, in a country like Myanmar where about two-thirds of the population lives in rural areas, incentives for teachers to work in those regions must be made available. Furthermore, families must have the financial means to send their children to school. These financial means include the direct expenses on education but also costs associated with the loss of labour when children go to school (for example, work performed by children on a farm). Traditionally, education in Myanmar is highly valued by families and communities; however, if parents do not see education as an investment for future success, they may resist sending their children to school.

Box 2.10. **Public expenditure on education**

Under military and socialist rule, Myanmar substantially neglected education investments. Government expenditure on education decreased from almost 3% of GDP in 1972 to about 0.5% in 2000. Recent reforms have led to a slight increase of that share, namely to 0.8% of GDP in 2011. Education spending corresponds only to around 2-3% of total government spending. The government has recognised the need for more education investments and has therefore increased the education budget to around 6% for the next fiscal year and has planned further increases in the future. Taking middle-income countries in Asia as benchmarks confirms that government plans to reallocate funds towards education are appropriate. Thailand reports education expenditures of almost 4% of GDP and Malaysia and Viet Nam of more than 5% (see figure in the box). These shares correspond to around 20% of total government spending on education.

In 2011, Myanmar allocated half of its education spending to primary school education and another 24% and 19% to secondary and tertiary education, respectively. A stronger concentration on primary education in Myanmar compared to other countries is most likely related to the fact that only primary education is compulsory. For example in India and Malaysia primary school spending makes up only one-third of total education spending. Another third is spent on secondary and tertiary education, respectively. Taking these countries as benchmarks, Myanmar may thus have to reallocate education spending towards secondary (including vocational) and tertiary education in the medium term.

Public expenditure on education as percentage of GDP in Myanmar compared to its peers, 2010



Note: The figure for Myanmar is based on 2011 data. The OECD average is based on 2009 and 2010 data.
Source: World Bank (2013a), *World Development Indicators* (database), http://databank.worldbank.org.
StatLink http://dx.doi.org/10.1787/888932867210

Quality upgrading of basic education is under way

Since the end of the 1990s, pre-service teacher training institutions have been restructured and upgraded. Today, all existing institutions are affiliated with the Institutes of Education and are subject to requirements that students have successfully completed upper secondary school and have passed the higher education entrance examination.[40] After successful completion of the one-year programme at an Education College, students receive the Certificate in Education, which allows them to teach at the primary school level as Primary Assistant Teachers (PATs). Students receive the Diploma in Teacher Education qualifying them to teach at the lower secondary level after successfully completing an additional year at the College. With one year of experience in primary school, those educators are promoted to the status of Junior Assistant Teachers (JATs). Holding a Diploma allows students to apply for entry into an Institute of Education to receive a Bachelor of Education by passing a third year. Bachelor degree holders are appointed as senior assistant teachers (SATs) in upper secondary schools. In the Institutes of Education in Yangon and Mandalay, students can also acquire a Master of Education with one more year of study. A Master degree is the minimum requirement to work as an academic staff member in a higher education institution.

While the restructuring and upgrading of teacher training institutions has led to a more co-ordinated system of teacher training, the durations of training for the respective levels have not been extended and practical pre-service trainings are still not part of the curriculum. Teacher trainings in Myanmar are clearly shorter compared to programmes in more developed countries, which often require a Bachelor of Education degree (three-year programme) to teach in primary and lower secondary schools. This is further illustrated by a relatively low (3%) share of higher education graduates with a specialisation in education in total graduates compared to shares above 10% in countries like Germany, Hungary or the United States (Figure 2.20). Furthermore, short-term traineeships under the supervision of experienced teachers at the respective school levels – an important component in programmes of most OECD countries – are not integrated in Myanmar's teacher training programmes.

To reduce the percentage of teachers without a nationally accepted teaching qualification in Myanmar, several in-service training programmes have been implemented during the past two decades. The duration of these programmes is six months. Courses are provided during weekends and focus on developmental and psychological aspects of the children, theories of learning, preparation of lessons, development and utilisation of teaching aids and evaluation techniques. Teachers passing the examination are awarded the Certificate or the Diploma of Education for primary school and lower secondary school teachers, respectively.

In-service teacher trainings have proven to be extremely successful: while in 1999 only 60% of primary school teachers were holding a respective qualification to teach, official statistics suggest that in 2010 all primary school teachers were certified to teach at that level. Similar improvements were reported for the secondary school level: the share increased from 69% to 99% over the same period. Other LDCs in the region also have high percentages of trained teachers at the primary level, but perform worse at the secondary school level; for example in Lao PDR, the percentage of trained secondary school teachers was only around 85% in 2010.

Finally, the quality of the educational process, including the curriculum as well as learning and examination methods, has recently been improved. Revisions of the curriculum at the primary and lower secondary school levels in 1998 and 2001 introduced core subjects such as life (or health-related) skills, natural science, morality and civics along with social studies including decision making, communication skills, interpersonal relationships, empathy, critical and creative thinking, coping with emotion and stress and fostering self-esteem and self-expression. Vocational subjects such as industrial and fine arts, agriculture as well as home economics were introduced at the lower secondary school level. Additionally, a new assessment programme focuses on a Comprehensive Personal Record (CPR) and more frequent testing in order to avoid the burden of final examination. The pupil's progress is thus assessed continuously and takes into account her/his all-around abilities. With these revisions, Myanmar has kept up with and is more reflective of its rapidly transforming society and is allowing for a comprehensive development of the students.

Although quality monitoring initiatives (such as school inspections) were introduced recently, better tools to assess quality improvement policies should be introduced. Participation in PISA, an international study launched by the OECD in 1997, would be one option. It evaluates basic education systems worldwide by assessing 15-year-olds' competencies in the key subjects: reading, mathematics and science. Policy makers use PISA to determine the knowledge and skills of students in their own country compared to those of other participating countries or economies.

Adjusting the supply of skills to future demand will be essential to sustain growth

Along with the transformation of the Myanmar economy, a new and most likely wider range of skills will be needed. Due to a lack of adequate and specific skills, many middle-income countries have difficulty moving up the value chain. Investment in human capital is either insufficient or not adapted to labour market needs. To identify what professional skills, that is vocational and tertiary skills, are potentially needed as Myanmar's economy grows, the skill-mix of fast-growing emerging or developed countries can be used as a benchmark.

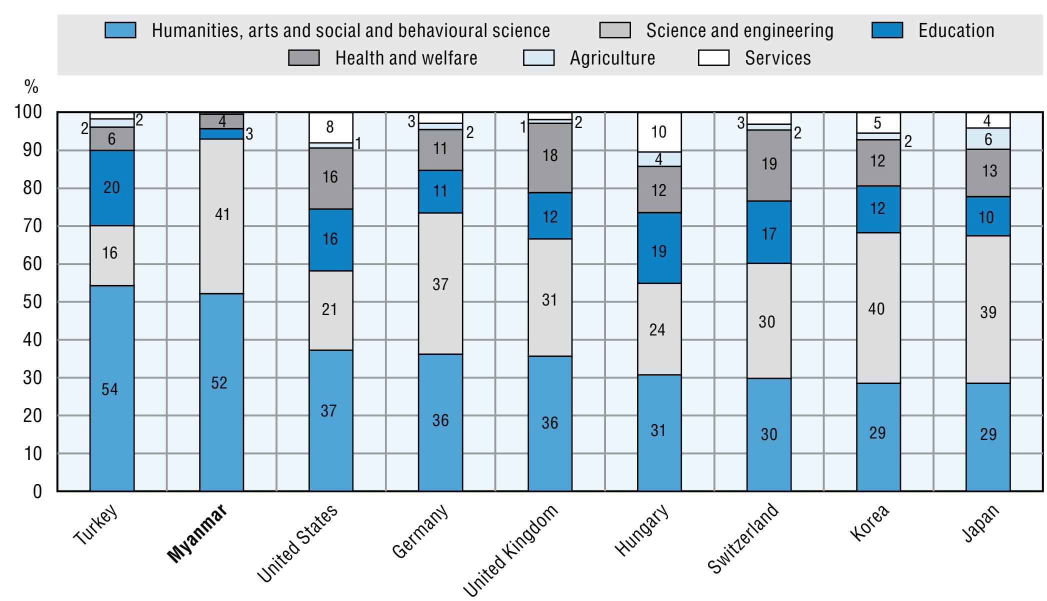
Since the beginning of the democratisation process, the government has sought to establish new higher education institutions to promote equitable educational development and access among the various regions in Myanmar. The number of institutions increased from 32 in 1988 to 164 in 2012. At the same time, new academic programmes at undergraduate and postgraduate levels were introduced in order to promote access to a broad set of possible specialisations. The number of higher education programmes under the Ministry of Education increased from 79 to 215 between 1988 and 2012.[41] The number of enrolled higher education students increased fourfold during the same period; in 2012 around half a million students were enrolled.[42] The gross enrolment ratio (GER) in tertiary education was 12.4% in 2001. Given the sharp increase of the absolute number of enrolled tertiary students during recent years, this ratio is likely to be higher today and thereby closer to benchmark countries in the region, such as China with a GER of 26% or India of 18% in 2010. The GER in tertiary education is often above 50% in OECD countries.

The fast increase in terms of quantity of higher education may have come at the expense of its quality. Given the limited budget for education in general, several ministries have recognised that the quality and control of higher education was lagging behind (see Box 2.10). In order to increase quality, the Ministry of Health reported for example that the number of doctors trained was recently downsized by one half from around 2 500 new students each year. Also, the Ministry of Science and Technology has reduced enrolment numbers for diplomas from 30 000 to 16 000 for the same reason.

Looking at the specialisation mix of graduates in tertiary education, a strong concentration on humanities, arts and social science stands out alongside science and engineering, potentially at the expense of education, health, management and entrepreneurship skills. Myanmar's share of graduates in the former group of fields is 52%, 10-20 percentage points higher than that of OECD countries such as Japan, the Republic of Korea or the United States. At the same time, a potentially insufficient share of human capital accumulation in education and health may have become apparent. Only 3% and 4% of Myanmar's higher education students graduate in education and health, respectively, compared to more than 10% in selected OECD countries (Figure 2.20). The share of graduates in science and engineering seems to be at par with that of more advanced countries. Since 2004 each year around 50 000 students have graduated in science and engineering schools. This is impressive given that the total of 61 universities and colleges offering degree programmes in science and engineering were established only recently; in 1988 none of those institutions existed.[43] Furthermore, the gradual opening of the economy will increase demand for augmented entrepreneurship and management skills in Myanmar. While economics and commerce programmes exist within humanities, to date no public business or management school exists. A stronger focus on the accumulation of those skills will therefore be needed in the future.

Figure 2.20. **Students in Myanmar focus on arts and sciences**

Share of graduates of higher education by specialisation in Myanmar compared to selected OECD countries, 2010-11



Source: Ministry of Education (2012), *Education Development in Myanmar*, The Republic of the Union of Myanmar and OECD (2013d), *OECD.Stat* (database), http://dotstat.oecd.org/.

StatLink http://dx.doi.org/10.1787/888932857691

Besides the accumulation of higher education skills, an industrialising Myanmar will need strong mid-level technical and vocational skills. Technical and vocational training is mainly co-ordinated by the Department of Technical and Vocational Education of the Ministry of Science and Technology.[44] Training of technicians is undertaken in government technical institutes and training of skilled workers or basic craftsmen in technical high schools. Both institutes and schools also offer part-time courses for those already employed. Almost 30 000 technicians and 4 000 skilled workers were trained (have passed examinations) in those institutions in 2010-11. These numbers reflect a progressively stronger focus on vocational training during recent years: only around 1 500 technicians and 1 000 craftsmen were trained in 1990-91. Agricultural institutes and co-operative colleges as well as non-governmental vocational schools trained an additional 8 300 workers in 2010-11 (compared to only 3 800 workers in 1990-91).[45]

Despite the recent increase, the number of students passing vocational education examinations corresponds to less than one third of the number of ordinary upper secondary school graduates in 2010-11. Given that access to ordinary upper secondary education is itself limited (the GER is only 38% in 2010), this implies that a considerable proportion of adolescents in Myanmar complete neither ordinary secondary education nor vocational training. In the medium term, a sophisticated and formal apprenticeship program like the one in Switzerland might be considered for Myanmar (Box 2.11).

Box 2.11. **Swiss apprenticeships: A possible model for Myanmar**

In the Swiss educational system, after ten years of compulsory schooling, students can continue general training or start a three-to-four-year apprenticeship. Approximately two-thirds of young people reaching the end of compulsory schooling choose to do an apprenticeship.* The distinctive feature of apprenticeships in Switzerland is the alternation of classroom learning and work experience in a company. In this so-called dual system of learning, students spend one or two days per week in a vocational training school and work in the firm for the rest of the week. Around 230 training options are available; business and health-related training are chosen most often.

The strength of the apprenticeship system in Switzerland compared to those in other countries is firstly that the training schemes are permeable, so that trainees can take up higher learning opportunities (including at universities) later or change activity during their career without wasting time. The partnership of companies, professional associations, the state and schools is another important ingredient. In fact, all these stakeholders are involved in the development of school curricula, which allows them to be adjusted according to changes in market demands and other circumstances. Finally, trainees contribute to production and most often generate profits for the company by the end of their training. Besides the economic benefit, apprenticeships generate qualified staff for the future, provide a young and dynamic touch to the company and improve the company's image (Petitjean, 2012).

A similar system of apprenticeships – the so-called Center for Vocational Training (CVT) – was initiated by a private association in Yangon about ten years ago (Jorio, 2012). The number of apprentices doubled to 450 between 2010 and 2012. The system now has 500 partner companies and offers five different programs; namely, commercial clerk, carpenter, electrician, engineer and hotel assistant. While the CVT enjoys the support of public authorities in Myanmar, it is still financed by aid contributions from abroad. Incorporating this pilot project into public educational planning would put Myanmar's vocational training system at the forefront of the region.

Note: * This figure corresponds to the net intake rate of vocational trainees at the age of 16 (end of compulsory schooling) and is clearly above the GER rate of 33% reported in the main text.

First and foremost, to better identify future skill demand in Myanmar, the co-ordination of the education system between ministries needs to be improved. Today, the responsibility for education is divided between more than a dozen ministries and has thus led to significant inefficiencies and potential misallocations of educational resources. Ideally, only one ministry would be responsible for the provision and quality of education at all levels. Better co-ordination of profession-specific education (higher education as well as vocational training) is particularly needed. Furthermore, a thorough analysis of the labour market will be needed to examine where unemployment is concentrated and how salaries in different sectors (including public vs. private sector) compare, among each other and with other countries. Also, employer surveys may be used to identify present and future skill needs of firms and public organisations. Employers' responses to such surveys can help guide policies to meet labour market needs more effectively and ensure that the right skills are being taught through vocational training and the wider education system.

Accumulating physical capital

Myanmar needs to rapidly accumulate physical capital (infrastructure and business assets) to sustain its growth and to meet its development targets. In particular, the country's infrastructure – its transport networks, energy infrastructure and telecommunications systems – is in need of urgent upgrading and expansion. Myanmar ranked 95th out of 104 countries in the 2005 RIS Infrastructure Index which takes into account transport, ICT, energy and banking (Kumar and De, 2008). This upgrading and expansion of infrastructure will need to be supported by a more effective institutional setting, which at present is overly complex.

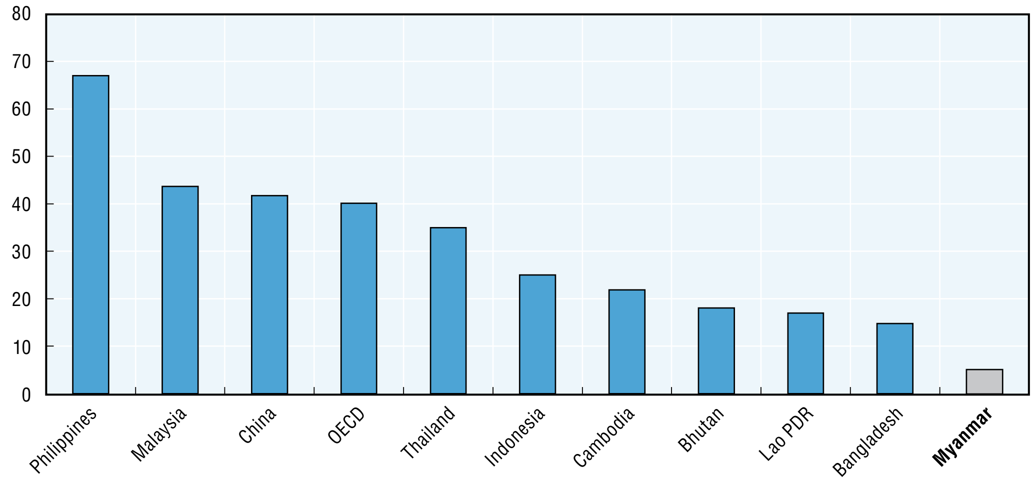
Infrastructure is essential for development. Beyond the addition of capital stock, it can boost growth indirectly. Investment in infrastructure can lower the cost of production and of trade and open new markets and new production opportunities. A strong transport and communications infrastructure network also connects more people together and enables marginalised or excluded communities to access core economic activities and services. Even the very production of infrastructure itself can boost growth by creating a demand for outputs from other sectors, often locally sourced, thereby creating employment, boosting disposable incomes, consumption and ultimately growth.

Major projects are underway or planned to upgrade transport systems

Institutional complexity means that responsibility for transport policy, planning and construction is divided between several ministries. The Ministry of Construction is responsible for roads and bridges, except for the roads and bridges in border areas and rural areas, which are under the responsibility of the Ministry of Border Affairs. The Ministry of Transport is responsible for aviation and maritime transport. The Ministry of Rail Transportation is responsible for the country's railways. While responsibility is split across so many bodies, it will be very difficult to develop an overarching, cohesive transport strategy which identifies priorities and allocates funding to those priorities.

Road density in Myanmar is extremely low (Figure 2.21) and not all townships are reached by the country's road network. Road quality is also an issue: just 21.7% of the country's roads are paved. The government is planning to upgrade much of the road network from the earth roads to gravel/bitumen roads and also to widen roads. Highways, such as the Yangon-Mandalay road, have been built and are being upgraded. A number of international highways have been constructed to improve connectivity within the Southeast Asian region. They include the ASEAN highways (eight in total), Asian Highways (four routes pass through Myanmar) and the GMS highways (three in total). Further upgrading and/or expansion of these routes are planned with the help of international co-operation and financial assistance.

Figure 2.21. **Road density is extremely low**
Road density (km of road per 100 sq. km of land area), 2010



Note: All data are from 2010 except for Philippines (2003), Thailand (2006), Indonesia, Cambodia and Lao PDR (2009).
Source: World Bank (2013a), *World Development Indicators* (database), http://databank.worldbank.org.
StatLink http://dx.doi.org/10.1787/888932857710

The current rail network is very run-down due to under-investment and insufficient maintenance over past decades. The 5 768 km network runs north to south with branch lines to east and west, but does not connect with neighbouring countries. There are plans to integrate the rail network into the Trans-Asia Railway, a project that will create an integrated freight railway network across Europe and Asia. China plans to construct a major rail line to connect Kunming, Yunnan province with the Kyaukpyu deep sea port on the west coast of Myanmar, and another one to Yangon and further south to the Dawei port project. Another route is planned from Kunming through Shan state to Thailand.

The Ayeyarwady and Chindwin rivers are the main waterways and play an important role in the county's transport network: in 2002, about 44.39% of the total freight-ton was transported via the inland water transport system (Thein, 2008). However, low water levels in the summer prohibit navigation by larger vessels. Myanmar has nine ports along the Bay of Bengal, although only four of these can handle international maritime transport. Between 2011 and 2016, the government plans to develop the Yangon port area, upgrade the Dala dockyard, establish five new international shipping terminals in the Thilawa port area and construct six new domestic ports along the Ayeyarwady and Chindwin rivers as well as to expand their shipping fleet.

To strengthen aviation capabilities, the government is planning to improve or upgrade the 14 airports at which scheduled flights are operating and to build a new Hanthawaddy International Airport. It also plans to modernise aviation systems, processes and training, all with the goal of increasing the number of flights on domestic and international routes.

Energy resources are vast but the infrastructure is presently insufficient to meet the country's needs

Compared to its energy generation potential, Myanmar's installed capacity is low. The country has 19 hydropower plants supplying 2 660 megawatts (MW), 10 natural gas plants supplying 715 MW and one coal-fired power station built in 2005, which supplies around 120 MW. Although the total installed capacity is nearly 3500 MW, hydropower cannot run at full capacity all year round. During the drier summer months, generation capacity drops to about 1500 MW, leading to frequent power cuts. The government partially addressed this problem by switching from hydropower to thermal power for the base load, with hydropower used for peak load.

Electrical power generation and distribution is a major problem in Myanmar. Some areas, particularly rural areas, are completely without electricity. The electrification rate is 49%, with notable urban-rural differences: just 28% of the rural population has access to electricity compared to 89% in urban areas. This means that some 26 million people are without electricity (IEA, 2012). Even in areas served by electricity, power shortages are frequent, disrupting people's everyday lives, businesses and community services. Installed capacity has been increasing, but demand is still greater than supply: in the dry period, only 75% of the demand is met. In addition, about one-third of the total power generated is lost between the power station and its final destination, the consumer (Thein and Myint, 2008). This high loss rate is due to the poor state of the ageing transmission infrastructure and the stealing of power, compounded by the often long distances needed to transport power from the source of its generation to the final consumer. The lack of reliable electricity supply is a major deterrent to companies considering establishing manufacturing operations in the country.

Yet the country's energy generation potential is large. Hydropower is under-exploited: the country has a theoretical hydropower potential of over 108 000 MW and 366 000 Gigawatt-hour (GWh) per year of energy in its river systems and an identified reserve of 39 720 MW (Thein and Myint, 2008). Coal reserves are estimated at 711 million tons spread over 15 coal deposits. The country also has substantial onshore and offshore oil and gas reserves. Recent assessments estimate that the Central Burma Basin and the Ayeyarwady–Andaman and Indo-Burman Geologic Provinces together have undiscovered but technically recoverable resources of 2.3 billion barrels of oil, 79.6 trillion cubic feet of gas and 2.1 billion barrels of natural gas liquids (USGS, 2012). A lack of technology, particularly for offshore exploration and extraction means that this potential is unlikely to be exploited without foreign co-operation and technology transfer.

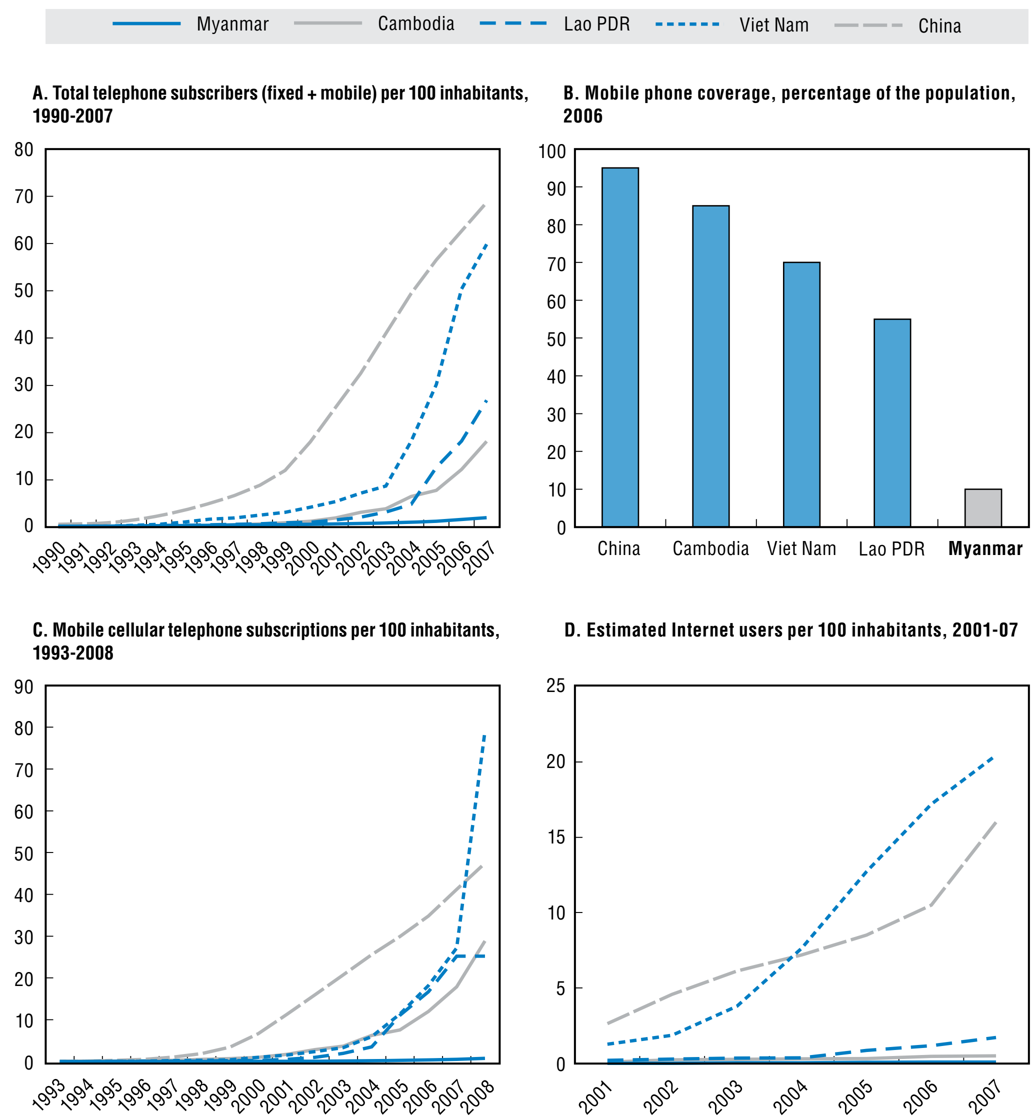
The Shwe and Zawtika are two major oil and gas projects due to come online in 2013, but they will serve primarily foreign rather than domestic energy demand. The Shwe twin pipelines will transport oil from the Middle East and Africa and natural gas from Myanmar's offshore gas field in the Bay of Bengal to China's Yunnan province. The Zawtika project will transport natural gas from south-eastern Myanmar to Thailand.

If the country is to meet its development objectives, meeting the rising domestic energy demand will need to be a priority. The Ministry of Electric Power plans to build and/or extend an additional 17 power plants for electricity generation between 2013 and 2016 (10 natural gas and 7 hydropower), increasing installed capacity by 2 192 MW. An additional 310 MW will come from planned wind and solar power farms to be built between 2013 and 2016.

Telecommunications capabilities are limited in coverage and quality

Modern telecommunications can be a great enabler for development. Internet and mobile technology open up a whole host of opportunities, from reducing transaction costs for business and boosting access to finance through mobile banking, to extending the reach of healthcare through e-health services and improving transparency by easing the flow of information, among many other things. Currently, the telecommunications sector is under-developed in Myanmar (Figure 2.22).

Figure 2.22. **The telecommunications sector is under-developed**



Source: ITU (2013), *International Telecommunication Union* (database), International Telecommunication Union, www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx.

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Telephone (fixed and mobile) and internet penetration are both very low in Myanmar. In 1990, the number of telephone subscriptions per 100 inhabitants was higher in Myanmar than in Cambodia, Lao PDR and Viet Nam, but by 2007 the rate in Myanmar had barely increased whereas Viet Nam had seen a 400-fold increase (Figure 2.22, Panel A). Furthermore, the quality of phone services is very poor: there are frequent failures to connect and lines often drop.

Mobile phone coverage serves just 10% of the population (Figure 2.22, Panel B), well below the coverage of its regional peers. More than 55 000 villages are still without mobile service. The government has ambitious targets in this field, aiming to reach 75-80% mobile penetration by 2016. The poor coverage is one of the reasons why just 0.8 per 100 inhabitants have a mobile phone subscription (Figure 2.22, Panel C), again, well below its neighbours. The cost of mobile services is also prohibitive. Whereas the average income in Myanmar is USD 60-70 per month, the cost of acquiring and activating a smartphone is USD 563.11 (Open Technology Fund, 2013). In January 2013, a SIM card for a mobile phone was around USD 250, putting it beyond the reach of many.

Until recently, the government ran all telecommunications in the country and monopolies characterised the market. For example, monopolies over the rights to sell SIM cards kept prices high: powerful businessman Tay Za's Htoo Trading gained exclusive rights to sell SIM cards for 800 MHz CDMA mobile phones in January 2010. By August 2011, four companies, all with connections to the regime, gained the rights to sell four million GSM phones and to construct communications bases throughout Myanmar. The country currently has two operators, one controlled entirely by the Ministry of Posts and Telecommunications and one partly government owned. Myanmar has shortlisted 12 telecoms groups to bid for two nationwide telecoms licences lasting 15 years, and intends to announce the winners by mid-2013. This should bring more competition to the market, bringing down prices. The entry of foreign firms into the telecoms sector should also improve service due to the transfer of technology and know-how.

Internet usage is very low in Myanmar at just 0.08 users per 100 inhabitants (Figure 2.22, Panel D). Again cost is a prohibitive factor. The limited internet infrastructure means that internet use is frustratingly slow and unreliable and does not assure the secure transfer of confidential information. At least 10 Gbps is available in the country, and all landline and wireless communications come through a single connection, the South-East-Asia/Middle East/Western Europe Optical Submarine Cable (SEA-ME-WE 3). All traffic runs through the "international gateway" that is on Prome road or PY1. As this limited connection restricts speeds, the government is planning to expand to another optical submarine cable (SEA-ME-WE 4). Currently, the majority of Internet access in Myanmar is obtained through Internet enabled mobile devices. Although the government has partnered with a Singaporean company to upgrade the country's fibre optic network, the focus is on mobile internet, with the intention of expanding existing mobile and wireless networks. Myanmar has three internet service providers, MPT, which is entirely government-owned, Yatanarpon Teleport (51% government held, 49% privately held) and Red-link Group, owned by family members of government leaders (Open Technology Fund, 2013).

Notes

1. The four licences were handed over to the four tycoons of Tay Za, Zaw Zaw, Nay Aung, and Chit Khaing.
2. In addition, the foreclosure procedure is long, often taking a couple of years. The foreclosed assets are auctioned by the court.
3. The Microfinance Business Law was passed and enacted in 2011 and there are 1 200 institutions countrywide. Licenses are issued by the Microfinance Supervisory Enterprise (under the Ministry of Finance). For deposit taking microfinance institutions the minimum capital requirement is 30 million kyats and for non-deposit taking ones 15 million kyats. Deposit taking is authorised only from members, not from the general public.
4. The Myanma Economic Bank appears to be the model to follow in setting loan-to-value ratios. At the time of the writing of the report, it applied 50% to buildings and 40% to land.
5. The current account is already practically liberalised with the lifting of the remaining restrictions on profit repatriation, overseas education and health expenses and travel.
6. In addition to budgetary spending on defence, the Special Funds Law grants the commander-in-chief authority to allocate additional funds for military purposes without parliamentary consent. This possibility not only reduces budgetary transparency and hence accountability, but also reduces the funds available for other areas such as health and education.
7. Two new offshore gas fields are in a production stage, one by Total and another one by a Malaysian company for exports to Thailand. Two other blocks are in an exploration stage (DAEWOO). The royalty is 10%, to be increased to 12.5%, earning USD 2 billion per year. There are several joint ventures where profits are shared between the government (60%) and the company (40%).
8. This is according to the official definition of general government, hence excluding fees for public utilities such as electricity distribution which are still formally part of the state administration and add up to 15% of state revenues.
9. The government is in the process of removing the operation costs and revenues of SOEs from the state account. Since FY 2012-13 the SOEs have their own account system, and 25% of their net profits are taxed. Their privatisation is foreseen in about 3-4 years.
10. A recent study evaluated the energy and environmental performance of eighteen developing countries, including all the Southeast Asian countries, using twenty specific indicators placed Myanmar last or second-to-last in terms of its overall performance and in terms of the amount of improvement that had occurred over 1990-2010 (Sovacool, 2012). While there was some tendency for lower income countries to perform less well than higher income countries in the analysis, Myanmar ranked well below the performance for Lao PDR and Cambodia, and well below that for Viet Nam.
11. Germanwatch, a climate monitoring group, has identified Myanmar as the second most adversely affected country in the world from climate-related severe weather events from 1990-2008 (BEWG, 2011).
12. For example, requiring all factories in a region to lower their pollution emissions below the regulatory maximum by the same amount is inefficient because those that can, because of superior technology or other factors, meet the standard at comparatively low cost are required to cut back no more than those who find it more costly to comply. The same global amount of pollution reduction could be achieved if reductions were concentrated on those factories that could limit their emissions at lowest cost. However this normally cannot be achieved with command instruments since it would require detailed knowledge on factory operating capacities that the authorities setting the standards do not possess.
13. Social enterprises are effectively part non-profit and part commercial entities and as such have distinctive characteristics that need to be accommodated by government policies if they are to thrive (OECD, 2012a).
14. The Councils were originally set up in accordance with the Mandate from the 1992 Rio Summit to establish multi-stakeholder bodies to help in implementing countries' Agenda 21 strategies. As noted earlier, the councils in some cases also play an important role in the co-ordination and integration of environmental policies among government agencies.
15. Until 2004, local authorities responsible for environmental conservation co-ordinated with the local offices of national ministries via committees formed at the local level but had no direct link to the NCEA (Habito and Antonio, 2007).
16. The NECC is also charged with promoting educational programmes in schools and elsewhere to raise awareness of environmental issues and with managing international donations to Myanmar's environmental conservation efforts.
17. In Thailand, waste collection is partially or completely privatised in Chiang Mai, Pattaya and Phuket (APO, 2007).

18. Myanmar has over 30 million labourers (CSO, 2013). According to a survey conducted by JETRO in August 2010, the wage of a factory worker in Myanmar is only 16% of the wage of a Thai counterpart and less than a half of those of Cambodia and Viet Nam (Makishima, 2012).
19. The Corruption Perceptions Index ranks countries based on how corrupt their public sector is perceived by the business community.
20. As of May 2013, the Government, in collaboration with the representatives of the private sector, has been preparing a new SME Development and Promotion Law which formally defines SMEs in Myanmar.
21. The population in 2011 (48.3 million) was used for the calculation (UNESCAP Data Centre at www.unescap.org/stat/data/).
22. The data of state-owned non-manufacturing enterprises in the primary and service sectors are not available.
23. However, it cannot be denied that public sector exports use alternative export vehicles in addition to state-owned enterprises.
24. The State-owned Economic Enterprise Law (1989) is the sole business law to provide a negative list to any private business.
25. Most privatisation of SOEs has been through leasing agreements, typically on 30-year leases, rather than outright sales. However, these deals have not been transparent.
26. The Ministry of National Planning and Economic Development has set up one-stop business support centres in Nay Pyi Taw and Yangon and plans to open another one in Mandalay in 2013. The Government has also planned to set up a number of one-stop service SME supporting centres at the provincial and state levels throughout the country in collaboration with the Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI).
27. This trade licensing scheme was overhauled in 2012 by allowing any business establishments or individuals to be able to engage in international trade by introducing streamlined trading procedures (JETRO, 2012).
28. Exporters and importers are included in Myanmar enterprises, foreign enterprises, partnerships or joint ventures.
29. Myanmar has also restricted foreign investment into those sectors (see the Mines Law (1994); the Pearl Law (1995); and other sector development laws for details).
30. In the case of Thailand, such discrimination by nationality has been substantially reduced particularly after the Asian financial crisis in 1997-98.
31. IFC estimates that microfinance has 2.8 million clients in Myanmar (Duflos et al., 2013).
32. The indexes include regulations for business start-ups, dealing with construction permits, employing workers, registering property, accessing credit, protecting investors, paying taxes, trading across borders, enforcing contracts and closing a business.
33. It is envisaged to allocate 5 billion kyats for this purpose and the maximum loan size per SME would be 5 million kyats.
34. The Non-Formal Primary Education (NFPE) Programme was developed in 1998 by the Department of Education Planning and Training (DEPT), the Myanmar Education Research Bureau (MERB) under Ministry of Education (MOE) and the Yangon Institute of Education (YIOE) in collaboration with UNDP and UNESCO. The NFPE system was then tested in two townships. In 2001, NFPE was introduced as a pilot project in 2001 in 11 townships under a UNDP/UNESCO project. In 2012-13, under the sponsorship of the MOE, UNICEF and other donors, 73 townships are providing NFPE Programmes, giving access to education to 10 488 students. UNESCO is currently working with MERB to develop a Non-formal Middle School Equivalency Programme curriculum.
35. The GER is defined as the number of pupils enrolled in primary education expressed as a percentage of the official primary-age population.
36. The transition rate from the primary school level (Grade 5) to the lower secondary school level (Grade 6) was 68.5% before upgrading schools in 2001-02. This transition rate rose to above 80% in 2009-10. Note that only around 35% of those appearing at the matriculation examination at the end of upper secondary school actually pass it.
37. Among others, the government provided financial incentives for teachers to work in rural regions in order to address teacher shortages in those regions. Looking for instance at the ratio of population to lower secondary teacher ratios in rural areas, the initiative seems to be successful: the ratio decreased from 780 to 611 between 1990 and 2010.

38. Among others, this dynamic is driven by the trend of trained teachers not entering the profession. Every year, 8 000-9 000 teachers are trained, but only around 7 500 go into schools.
39. Section 28, Paragraph (c) of the Constitution of the Republic of the Union of Myanmar (2008) states that, "the Union shall implement a free, compulsory primary education system".
40. A student's marks on the matriculation examination at the end of upper secondary school determine if the student is eligible to sit for a particular higher education entrance exam.
41. Tertiary education programmes co-ordinated under other ministries may also have increased. In total, 13 ministries are involved in the educational system.
42. Of the 470 912 students only about 40% were attending regular classes. The remainder were studying via Distance Education. With Distance Education, students take away their coursework and may briefly meet with an instructor to run through the material before exams.
43. Myanmar had technology and science institutes before 1988. During military rule many higher education institutions were closed and gradually reopened during the democratisation process.
44. Besides the Ministry of Science and Technology more than a dozen other ministries are involved in technical and vocational training in a total of 459 public training schools.
45. Note that around 80% of those appearing for vocational training actually pass the final examination.

Table A.2.1. Myanmar's financial system

Type of business organisations	Number of entities	Description	Registration and supervisory office	Legal framework
State-owned development banks	4	Myanmar Foreign Trade Bank Myanmar Economic Bank Myanmar Investment and Commercial Bank (to be renamed the Small and Medium Industrial Development Bank) Myanmar Agriculture and Rural Development Bank	Central Bank of Myanmar and respective line ministries	Central Bank of Myanmar Law (1990); Financial Institutions of Myanmar Law (1990); Saving Bank Law (1992); Myanmar Companies Act (1914)*; Myanmar Agricultural and Rural Development Law (1990)
Private banks	19	Private commercial banks	Central Bank of Myanmar	Central Bank of Myanmar Law (1990); Financial Institutions of Myanmar Law (1990); Saving Bank Law (1992); Myanmar Companies Act (1914)
Financial institutions	5	Myanmar Orient Leasing Company Ltd. Myanmar Insurance Myanmar Securities Exchange Centre Company Co., Ltd. Security and Printing Works Myanmar Microfinance Supervisory Enterprise (former Myanmar Small Loan Enterprise)	Ministry of Finance and Revenue and Ministry of Defence (for security and printing works)	Central Bank of Myanmar Law (1990); Financial Institutions of Myanmar Law (1990); Myanmar Insurance Law (1993); Microfinance Law (2011); Microfinance Notification and Directives (2011); Myanmar Companies Act (1914)*
Representative offices of foreign banks	28	Foreign banks mainly from South-East and North-East Asia	Central Bank of Myanmar	Central Bank of Myanmar Law (1990); Financial Institutions of Myanmar Law (1990); Myanmar Companies Act (1914)*
Micro finance providers	1 755	Microfinance institutions (MFIs) Informal and semi-formal sector Cooperatives NGOs (e.g. PACT) Specialised agricultural development companies Village revolving funds Community-based organisations	Ministry of Finance and Revenue, Ministry of Cooperatives and Ministry of Agriculture and Irrigation	Microfinance Law (2011); Microfinance Notification and Directives (2011); Myanmar Agricultural and Rural Development Law (1990); Cooperative Society Law (1992); Law relating to Forming of Organisations—NGO Law (1988); Myanmar Companies Act (1914)*

Note: * The subsection of the Myanmar Companies Act (1914) covers the provision of bankruptcy; thus, the banking and financial sector has to reply on this law for the cases of loan defaults caused by insolvency.

Sources: PWC (2012), *Myanmar Business Guide*, August 2012, PricewaterhouseCoopers LLP, Singapore, www.pwc.com/sg/en/assets/document/myanmar_business_guide.pdf; Aung, Y. and Khin C. O. (2011), "Small and Medium Enterprises in Myanmar", a presentation at the Asia–Pacific Financial Inclusion Forum, Tokyo, Japan, 6-8 September 2011, Ministry of Finance and Revenue, Government of Myanmar; and Duflos, E. et al. (2013), *Microfinance in Myanmar: Sector Assessment*, January, International Financial Corporation, World Bank Group. Washington, D.C, www.cgap.org/sites/default/files/Microfinance%20in%20Myanmar%20Sector%20Assessment.pdf.

Table A.2.2. **Categories of manufacturers by size in Myanmar, Thailand and Viet Nam**

	Myanmar				Thailand	Viet Nam
Category	Investment amount	Annual production capacity	Installed power	Number of workers		
Micro-sized manufacturers	Not applicable	Not applicable	0.25 horse power to 5 horse power	Less than 10	50 or less workers or capital less than THB 50 million (Thai bhat)	1 to 9 workers
Small-sized manufacturers	1 million Kyats	10 million Kyats	Less than 25 horse power	10 to 50		10 to 300 workers; capital less than VND 10 billion (Vietnamese dong)
Medium-sized manufacturers	5 million Kyats	10 million Kyats	Less than 50 horse power	51 to 100	51-200 workers or capital over THB 50 million and less than THB 200 million	
Large-sized manufacturers	10 million Kyats	More than 10 million Kyats	Over 50 horse power	Over 100	Over 200 employees or capital over THB 200 million	Over 300 workers; capital over VND 10 billion

Source: Ministry of Cooperatives (2013), *Types of Industries in Myanmar*, in the Small Scale Industries Department of the Ministry of Cooperatives, Yangon, 16 January 2013 and UNESCAP (2012a), *Policy Guidebook for SME Development in Asia and the Pacific*, United Nations Economic and Social Council for Asia and the Pacific, Bangkok, www.unescap.org/tid/publication/indpub2621.pdf.

Table A.2.3 **State-owned enterprises by business fields: Profit and loss**

Business fields	1990-91	1995-96	2000-01	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	Accumulated profit or loss (2004-11)
AGRICULTURE AND FOREST	-951	-3 238	-45 786	-42 782	-34 517	-72 367	-86 128	-110 932	-116 924	-116 669	-580 319
1.Agricultural enterprises	-720	-2 443	-35 608	-14 795	-13 976	-24 777	-22 105	-27 206	-14 145	-29 433	-146 437
2.Myanma timber enterprise	-231	-794	-10 178	-27 988	-20 541	-47 589	-64 023	-83 726	-102 779	-87 236	-433 882
LIVESTOCK BREEDING AND FISHERIES	27	-120	8	-5 096	-2 023	-3 326	-16 151	-8 347	-7 383	-18 464	-60 789
1.Myanma fisheries enterprise	49										0
2.Livestock, foodstuff and milk products enterprise	-22	-120	8	-5 096	-2 023	-3 326	-16 151	-8 347	-7 383	-18 464	-60 789
MINES	-345	-236	1 152	-1 328	8 263	-1 275	12 067	18 832	3 648	30 912	71 118
1.Mining enterprises	-290	-672	-1 021	-1 644	-1 751	-5 333	-3 432	-4 190	-2 886	3 314	-15 922
2.Myanma gems enterprise	-66	452	2 340	337	10 104	3 571	15 425	23 998	7 665	28 108	89 207
3.Myanma salt and marine chemical enterprise	6	-7	-101	-208	-184	-95	-56	-356	-460	-477	-1 835
4.Myanma pearl enterprise	4	-10	-66	187	94	582	130	-620	-671	-33	-332
INDUSTRY	633	-216	1 365	-2 042	8 829	10 372	-805	7 565	-9 685	-9 057	5 177
1.Industry (1)	431	-714	1 108	630	14 023	10 802	6 258	4 898	-18 837	-23 369	-5 595
2.Industry (2)	202	497	257	-2 671	-5 194	-430	-7 063	2 667	9 152	14 312	10 772
ENERGY	29	2 265	-9 766	-26 026	-150 304	-121 264	-127 668	-76 773	-89 867	99 700	-492 203
1.Myanma oil and gas enterprise	7	-14	-1 310	-992	-1 078	-17 248	10 262	-3 770	6 786	-10 001	-16 040
2.Myanma petrochemical enterprise	-54	2 176	-3 221	-13 817	-114 098	-54 521	-63 727	-3 765	-51 206	-48 040	-349 173
3.Myanma petroleum products enterprise	-62	-69	-990	-7 781	-32 207	-82 321	-100 456	-68 950	43 751	212 872	-35 094
4.Myanma electric power enterprise	137	171	-4 245	-3 437	-2 921	32 826	26 253	-287	-89 198	-55 132	-91 896
PUBLIC WORKS	-155	39	-7 976	-757	10 155	4 023	5 979	2 440	9 352	7 784	38 976
TRANSPORT	213	356	224	-545	-1 812	-11 294	-8 515	-11 146	-8 242	-5 238	-46 792
1.Myanma five star line	51	16	-129	588	436	2 687	200	-604	-6	-469	2 831
2.Inland water transport	40	119	4	1 569	227	-2 785	-3 324	-4 690	-4 781	-4 651	-18 435
3.Myanma port authority	82	330	184	284	46	-1 838	-1 734	-2 411	-1 881	-2 765	-10 299
4.Myanma shipyards	26	-21	-75	-212	-255	-543	-943	1 056	-491	-739	-2 128
5.Myanma airways	19	24	241	-924	-1 693	-2 845	-1 602	-3 449	-903	2 813	-8 603

Table A.2.3. **State-owned enterprises by business fields: Profit and loss** *(cont.)*

Business fields	1990-91	1995-96	2000-01	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	Accumulated profit or loss (2004-11)
RAIL TRANSPORT	212	197	-377	-4 633	2 585	-9 733	-18 262	-21 445	-20 376	-26 265	-98 129
1.Myanma railways	137	408	289	4 674	1 252	-12 530	-16 401	-24 503	-28 791	-33 218	-109 517
2.Road transport	40	140	49	402	394	33	-207	44	-1 811	-1 464	-2 609
TELECOMMUNICATIONS, POST & TELEGRAPH	128	307	745	-33 080	39 022	17 287	65 923	23 500	32 167	57 196	202 016
1.Myanma post and telecommunications	128	307	745	-33 080	39 022	17 287	65 923	23 500	32 167	57 196	202 016
FINANCE AND REVENUE	653	1 203	3 665	20 547	12 177	15 814	8 293	16 248	39 035	31 234	143 348
1.Central Bank of Myanmar	279	603	3 753	16 333	3 158	21 644	31 571	28 943	44 387	36 511	182 546
2.Myanma economic bank	225	-169	-1 372	9	3 116	-9 988	-28 523	-23 154	-11 489	-14 184	-84 212
3.Myanma foreign trade bank	87	73	39	136	196	225	377	79	112	71	1 196
4.Myanma agricultural and rural development bank	25	130									0
5.Myanma investment and commercial bank	6	97	101	90	164	27	59	504	1	-772	72
6.Myanma insurance	153	507	843	3 498	4 160	3 465	4 131	9 971	6 832	11 523	43 580
7.Security and printing works	-122	-64	265	-337	510	-561	139	255	-1 079	-1 636	-2 708
8.Myanma small loan		27	37	819	874	1 003	538	-350	271	-280	2 874
TRADE ENTERPRISES	-1 381	-4 925	-49 011	-5 173	896	-1 334	-1 007	-815	-1 594	-1 059	-10 084
SOCIAL SERVICE	47	-70	-52	268	2 787	1 468	2 516	1 161	509	500	9 208
1.Information	45	-55	1	164	2 357	739	1 953	1 719	263	-5	7 190
2. Social Security Board.	2	-15	-53	104	430	729	563	-558	246	504	2 018
GRAND TOTAL	**-276**	**-3 528**	**-153 914**	**-187 303**	**-223 460**	**-346 204**	**-333 854**	**-332 985**	**-363 356**	**73 907**	**-1 713 255**

Source: The authors' compliance based on CSO (Central Statistical Organization) (2013), *Myanmar Data: CD-ROM 2011-12*, Central Statistical Organization, Ministry of National Planning and Economic Development, Nay Pyi Taw, Myanmar.

Table A.2.4. **Incentives and restrictions relating to business investments in Myanmar**

	Myanmar Companies Act (1914)	State-owned Economic Enterprise Law (1989)	Foreign Investment Law (1988)	Foreign Investment Law (2012)	Myanmar Citizens Investment Law (1994)	Special Economic Zone Law (2011) and Dawei Special Economic Zone Law (2011)[1]
Regulated business	Local and foreign business	State-owned business	Foreign business, including joint ventures, partnerships and branches/ subsidiaries	Foreign business, including joint ventures, partnerships and branches/subsidiaries	Local business	All business and nationalities, including foreign insurance companies
Supervising ministry	Ministry of National Planning and Economic Development	Various line ministries	Ministry of National Planning and Economic Development	Ministry of National Planning and Economic Development	Ministry of National Planning and Economic Development	Special Economic Zone Central Committee
Foreign ownership	Not applicable	Not allowed	100%	100% (no share holding limitation for joint ventures except some business activities)	Not allowed, including partial shareholding or control by foreigners	100%
Land ownership by foreigners	No	Not applicable	No (leasing only from the government up to 40 years)	No (leasing from both the government and citizens up to 60 years)	Not applicable	No (leasing from both the government and citizens up to 75 years for large enterprises); right to transfer the leasing agreement to the third party under the Dawei Special Economic Zone Law (2011).
International trade	Only domestic companies	Yes	Yes	Yes	Yes	Yes
Trade-related performance or local content requirement[2]	No	No	No (but declaration required on the percentage of goods export and domestic sales)	No (but local content requirements only for a limited number of manufacturing activities)	No	No (but there are tax based incentive or export).
Labour hiring[3]	No foreigners as director	No	No	Nationality requirements for both unskilled and skilled workers[4]	No limitation but requiring approval for foreign workers	Nationality requirements for both unskilled and skilled workers[5]
Nationalisation	Yes	Not applicable	No	No	No	No
Tax holiday	No	Not applicable	First three years and various additional tax exemptions and reliefs	First five years and various additional tax exemptions and reliefs	First three years and various additional tax exemptions and reliefs[6]	First five years and various additional tax and duty exemptions and reliefs; exemption of customs duty at export processing zones
Corporate tax[7] (as of 2012)	Up to 25%	Up to 25%	Up to 25%	Up to 25%	Up to 25%	Up to 25%

Table A.2.4. **Incentives and restrictions relating to business investments in Myanmar** (*cont.*)

	Myanmar Companies Act (1914)	State-owned Economic Enterprise Law (1989)	Foreign Investment Law (1988)	Foreign Investment Law (2012)	Myanmar Citizens Investment Law (1994)	Special Economic Zone Law (2011) and Dawei Special Economic Zone Law (2011)[1]
Repatriation of profits	Not applicable	Not applicable	Yes	Yes	Not applicable	Yes
Negative list for private business	No	Negative list (i.e. teak; forest plantation; oil and natural gas; pearl, jade, precious stones; certain breeding and production of prawns and fishes; postal and telecommunications; air and railway transport services; banking and insurance services;[8] broadcasting and television services; metal mining; electricity generation;[9] and security and defence related manufacturing).	Positive list (i.e. agriculture and irrigation, livestock and fishery, forestry, limited mining, power, manufacturing, construction, transport, hotels and tourism); no service sector; and joint ventures or partnerships with state-owned enterprises.	Negative list: a) 21 prohibited activities, e.g. arms and ammunitions, polluted activities, ozone depletion chemicals, hazardous materials, natural forest, some mining, utilities, air navigation, and mass media in local language; b) 42 activities allowed only in the form of joint venture, e.g. food and beverage, light manufacturing, real estate, mining, construction, passenger and cargo transport and logistics, healthcare, tourism; c) 115 activities required line ministries' recommendations; d) 27 activities permitted with conditions; and e) 32 activities required Environmental Impact Assessment.	Positive list (i.e. agriculture, livestock and fishery, forestry, mining, manufacturing, and services); and joint ventures or partnerships with state-owned enterprises.	Positive list (i.e. port management, manufacturing - particularly high technology industries, electricity generation and distribution, logistics and transport services, infrastructure construction, oil and natural gas distribution and pipeline construction, agro business, livestock and fishery, forest products, limited trading, hotels and tourism, education and healthcare, and real estate); and joint ventures or partnerships with state-owned enterprises.

Notes:
1. The rules and regulations of both the Special Economic Zone Law (2011) and the Dawei Special Economic Zone Law (2011) have yet to be specified. The SEZ Laws contain different incentive schedules based on the size of enterprises (i.e. large-scale investment, medium-scale investment and small-scale investment), which favour large enterprises.
2. Some neighbouring countries of Myanmar, such as Indonesia, Malaysia and Thailand, maintain local content, export performance and domestic sales requirements for foreign investments in certain sectors, including various manufacturing industries such as motor vehicles and electrical goods, although these countries are under pressure to liberalise. The WTO TRIMS Agreement generally prohibits trade-related investment measures (Myanmar is a founding member of WTO).
3. Most other ASEAN countries have no restriction on foreign workers. However, Lao PDR allows foreign workers to a maximum of 10% of the total labour force of a foreign enterprise, whereas in Cambodia the total number of foreign workers is determined by the Government on a case-by-case basis.
4. The new FDI law (2012) requires that all unskilled workers must be Myanmar workers. After five years, 25% of the skilled workforce in foreign companies must be Myanmar, increasing to 50% after the next five years, then 75% after 15 years.
5. The two SEZ Laws (2011) also require that all unskilled workers must be Myanmar workers. After five years, 25% of the skilled workforce in foreign companies must be Myanmar, increasing to 50% after the next five years, then 75% after 15 years.
6. According to the Ministry of National Planning and Economic Development, the Myanmar Citizens Investment Law (1994) will be revised to provide the same incentives as those of the new Foreign Investment Law (2012).
7. Myanmar's corporate tax rate (25%) is relatively high compared with those of neighbouring countries. Their specific rates are: 20% for Thailand (from 2013); 20% for Cambodia; 17% for Singapore; 25% for Indonesia; 20% for Lao PDR; and 25% for Viet Nam. Those rates are the maximum applicable rates and may change by sector (e.g. natural resources and high tech industry) and by zone (e.g. rural versus urban, special economic zones, etc.).
8. The present Government has opened the banking sector to the private sector and planned to open to foreign banks after 2015. The Government has also worked to open the insurance sector.
9. Other than those permitted by law for private and co-operative electricity generation (PWC, 2012).
Source: Authors' compilation based on Myanmar's laws mentioned in the first row of the table.

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